

# Strategic Plan for the Elimination of Childhood Lead Poisoning The Goal is Within Reach in Illinois



# Strategic Plan for the Elimination of Childhood Lead Poisoning

The Goal is Within Reach in Illinois

# Illinois Department of Public Health

Office of Health Promotion

Division of Children's Health and Safety

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# **Executive Summary**

Eliminating childhood lead poisoning is within reach.

The Illinois Department of Public Health created the Illinois Childhood Lead Poisoning Elimination Advisory Council in late 2003. The Council conducted a series of meetings to develop a long range strategic plan for decreasing the serious threat posed by lead poisoning to children in this state. Unfortunately, Illinois leads the nation in the number of children with elevated blood lead levels. While the number has been decreasing steadily, much work remains to be done.

Over the course of nearly eight months, dedicated groups of professionals, community activists and other interested parties worked together to craft goals, objectives, strategies and more than 50 specific targeted activities as part of a five-year plan to protect the health of Illinois' children. The effort has nine major goals:

- To improve awareness of childhood lead poisoning among parents, health care providers, the housing industry, elected officials and opinion leaders.
- To make lead-safe housing a priority in all areas of the state.
- To provide a mechanism to allow the public to make lead-safe housing choices.
- To be more aggressive in interventions against unsafe housing
- To improve regulatory tools and compliance efforts against housing containing lead.
- To simplify and improve screening practices for at-risk children.
- To focus screening efforts on areas of highest concern.
- To identify children in rural areas at risk for lead poisoning.
- To provide better data analysis and an effective framework for the evaluation of longterm and short-term outcomes for the implementation of this strategic plan.

This strategic plan is not intended to be a static document. It is anticipated that, as the Department and the advisory council continue efforts in the years to come, the strategic plan will be amended and expanded to reflect the changing situation in Illinois. While it would be hoped that all interventions would be immediately successful, this is not realistic. Some

interventions will be more successful than others. Subsequent evaluation of these efforts undoubtedly will require changes in the strategic plan.

The Illinois Department of Public Health and the advisory council are pleased to present this strategic plan for the consideration of leaders throughout the state.

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# Mission Statement

The task is clearly set.

The following mission statement governs the activities carried out under this strategic plan:

Get ahead of lead! The Illinois Department of Public Health and its Childhood Lead Poisoning Elimination Advisory Council are dedicated to the reduction of exposures to lead for all Illinois children and to the achievement of the Healthy People 2010 goal of eliminating blood lead levels at or above 10 mcg/dL. The mission is to unite, in a humanitarian and collaborative spirit, diverse entities and partners with families to develop and apply a comprehensive, effective statewide plan that will accomplish this goal. Creative partnerships and cooperative actions across geographical, organizational, political and commercial boundaries will be essential to achieving this mission.

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# Vision for the Future

The elimination of lead poisoning will bring about other positive changes in Illinois.

The vision for the future is simple and straightforward:

Children in Illinois will no longer suffer the harmful effects of lead poisoning.

The Department is confident that, through the implementation of this strategic plan, this vision **will** become reality. As that occurs, the state will reap a number of benefits:

- Cases of developmental delay and mental retardation caused by childhood lead poisoning will be eliminated.
- Health care costs associated with treating childhood lead poisoning will be significantly reduced.
- Housing in Illinois will become safer as housing-based sources of lead poisoning are eliminated.
- The number of target areas needed for surveillance purposes will be concomitantly reduced.

The strategic plan will make this vision a reality.

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# Stakeholders

Childhood lead poisoning prevention will require the concerted efforts of a wide variety of stakeholders.

The Illinois Department of Public Health has been fortunate to enjoy the support of a diverse and active group of stakeholders who have played an active role in the creation of this strategic plan.

Members of the Illinois Childhood Lead Poisoning Advisory Council

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Amy Zimmerman, J.D. Children's Health and Education Project Chicago Lawyers' Committee for Civil Rights Under Law Chicago, Illinois

#### Other Partners and Stakeholders

The plan's development process has included other stakeholders:

- 84 local health departments are participating as delegate agencies under IDPH's Childhood Lead Poisoning Prevention Program.
- Realtors
- Mortgage lenders
- Property owners / Landlords
- Paint manufacturers
- Medical groups and associations
- Community development agencies
- Home renovation contractors

This list will continue to evolve as the members of the advisory council continue the work of finalizing this strategic plan.

# Scope of the Problem

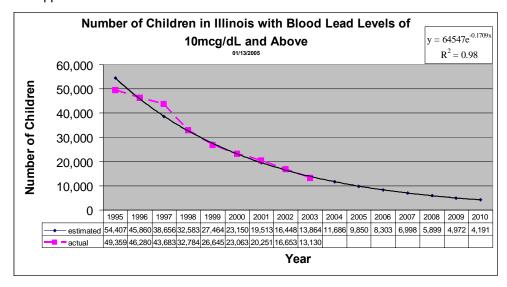
Progress has been made but there is much left to do.

#### Illinois Ranks No. 1 Nationally in Elevated Blood Lead Levels

The number of cases of elevated blood lead levels among Illinois children decreased from 47,398 in 1996 to 13,130 in 2003 (the most recent complete data set). The prevalence rate showed a concomitant decrease, from 20.14 percent of those tested in 1996 to only 4.9 percent of those screened in 2003. During this time period, the proportion of children tested remained constant, supporting the conclusion of a significant decrease in prevalence.

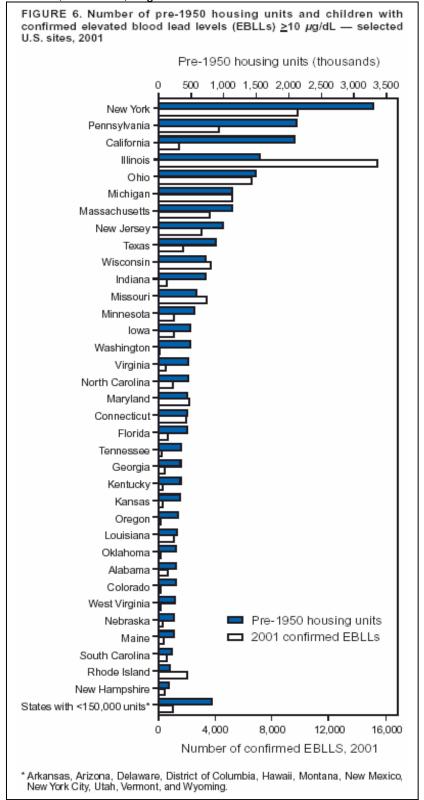
Yet, the September 12, 2003, edition of *Morbidity and Mortality Weekly Report* reported that, despite great progress in Illinois, this state continues to lead the nation in the number of elevated blood lead (EBL) levels reported in children, as depicted in the chart on the next page. In fact, the number of EBL cases reported in Illinois amounted to 20.5 percent of all EBLs reported nationwide, and is more than twice as large as the number reported in the second-ranking state, Ohio.

While such a record is not cause for great pride, it is clear that this state is within reach of achieving the Healthy People 2010 goal of eliminating childhood lead poisoning. A trend analysis of prevalence rates in Illinois developed by IDPH presents the persuasive data below. See Appendix A for additional trend data.



Source: Illinois Childhood Lead Poisoning Prevention Program

Excerpt from *Morbidity and Mortality Weekly Report*, September 12, 2003, Volume 52, No. SS-10, Page 10

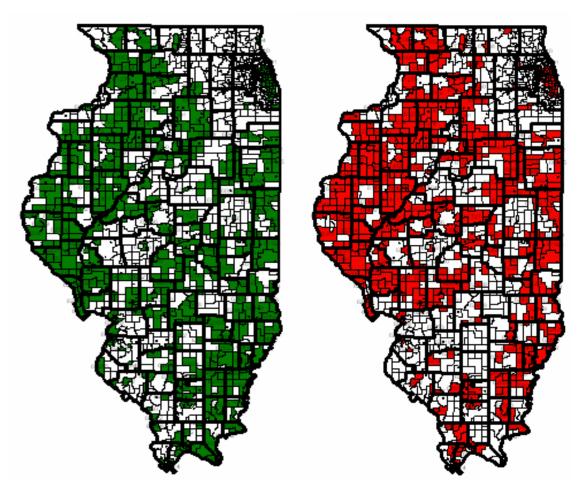


2002 data from Illinois indicates that African-American children are more than three times as likely as Caucasian children to be affected by lead poisoning. Hispanic children face twice the risk of Caucasian children. Most of this increased risk is attributable to the fact that minorities are more likely to live in older housing stock, which is more likely to have lead-based paint. In addition, folk remedies and imported pottery containing lead also can contribute to the increased rates found among minority children. The city of Chicago accounts for more than 50 percent of all childhood lead poisoning cases in Illinois.

In response to the most recent prevalence data and the availability of 2000 census data for Illinois, this state is in the process of redefining the high-risk ZIP codes that are part of the screening algorithm used by health care providers. The following maps provide an indication of the significant differences that result as older housing stock is supplemented by newly developed suburban communities downstate, while economically disadvantaged populations move from the city of Chicago to suburban areas.

A: Old high-risk ZIP codes

B: New high-risk ZIP codes



Because childhood lead poisoning is most easily treated when detected early in life, Illinois is placing special emphasis on children who are 3 years of age and younger. See Appendix B outlines screening and prevalence rates for Illinois counties for this age group.

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# Implementing the Vision for the Future

Illinois launches a five-year strategic plan.

#### An Overview of the Process

At their first meeting in December 2004, the members of the Illinois Childhood Lead Poisoning Elimination Advisory Council were divided into five work groups. Each work group was assigned the task of addressing one area that challenges the elimination of childhood lead poisoning:

- Education awareness
- Primary prevention
- Screening
- Rural concerns
- Evaluation

Each work group was asked to develop a detailed set of goals, objectives, strategies and activities to address the challenges in its area. The work groups also were asked to identify which stakeholders were best suited to assume responsibility for the implementation of the items identified in that portion of the strategic plan. Finally, the work groups were instructed to identify implementation resources presently on hand, as well as new resources that will be necessary to accomplish the vision outlined.

This section of the strategic plan will outline the work of the first four work groups. The work of the evaluation group will be covered in detail in Section 8. A resources work group will be developed during fiscal year 2005.

#### Goals and Objectives Developed by the Work Groups

Primary Prevention Work Group

**Goal 1**. Make lead-safe housing a priority by providing a mechanism to allow the public to make lead-safe housing choices.

**Objective 1.** Establish a registry of lead-safe housing.

**Strategy 1.** Develop a legislative strategy for lead-safe housing in Illinois.

**Activity 1.** Identify potential sponsors for legislation.

**Activity 2.** Draft legislation, including requirement for lead-safe house inspection prior to the sale of a home, acceptance into publicly funded programs (Section 8) or occupancy of a new tenant. Define re-inspection standards through legislation.

**Activity 3.** Develop grassroots lobbying effort using parents of lead poisoned children and celebrity spokesperson to push passage of legislation.

**Strategy 2.** Promote full implementation of lead-safe housing registry.

**Activity 1.** Make registry available to the public for housing decision-making, including through the Web site.

**Activity 2**. Make registry available to the housing / real estate industry.

**Activity 3.** Work with local officials to assure enforcement of the provisions of state law.

**Goal 2.** Be more aggressive in intervention methods.

Objective 1. Lower the level of environmental investigations for children 36 months of age and younger.

**Strategy 1.** Lower the level at which an environmental investigation can be con ducted for younger children.

**Activity 1.** Change the local health department guidelines to require an environmental investigation at a confirmed blood lead level of 15 mcg/dL instead of 20 mcg/dL for children 36 months of age and younger.

**Activity 2.** Lower the level at which a physician can order a home environmental investigation for children 36 months of age and younger to 10 mcg/dL.

Goal 3. Make it more convenient for physicians to perform lead screening.

**Objective 1.** Increase the number of screenings for private pay clients.

**Strategy 1.** Streamline the process of lead screenings.

**Activity 1.** Change the recommended ages of screening to 9 and 18 months instead of 12 and 24 months.

- **Activity 2.** De-emphasize the question on "high-risk ZIP code" on IDPH's risk assessment questionnaire.
- **Activity 3.** Draft legislation to monetarily fine physicians who are not testing according to state law.
- **Activity 4.** Draft legislation requiring private insurance companies to pay for lead screenings (testing) for children 36 months of age and younger.

#### Education / Awareness Work Group

- **Goal 1.** Improve awareness of childhood lead poisoning prevention among parents, health care providers, elected officials and opinion leaders.
  - **Objective 1.** Educate pregnant women and new moms on potential lead poisoning hazards in the home.
    - Strategy 1. Identify and develop materials that focus on nutrition and housekeeping practices.
      - **Activity 1.** Identify current materials available.
      - Activity 2. Develop new materials where needed.
      - **Activity 3.** Revise medical history form used in hospitals and clinics to include lead questions.
      - Activity 4. Update immunization records to include lead information.
      - Activity 5. Distribute brochures in a pilot study in obstetrical/gynecological WIC clinics.
  - **Objective 2.** Provide education on the consequences of lead poisoning and how to be lead-safe in your home.
    - **Strategy 1.** Raise the profile of lead poisoning prevention by "personalizing" the issue through the use of a well-known spokesperson who can speck from personal experience.
      - **Activity 1.** Identify and recruit a celebrity spokesperson.
      - Activity 2. Develop social marketing campaign featuring celebrity spokesperson.
      - **Activity 3.** Implement social marketing program, including collateral material to be given to the parents of newborn children.
    - **Strategy 2.** Provide continuing education to all involved in the housing industry: contractors, landlords, real estate agents, mortgage companies, real estate lawyers, hardware stores and home centers.
      - Activity 1. Develop targeted educational materials.
      - **Activity 2.** Develop delivery mechanisms for educational materials through professional organizations and community colleges.

**Activity 3.** Work with the hardware / home center to develop and provide workshops for do-it-yourself homeowners.

**Objective 3.** Educate physicians on testing requirements, treatment and long-term case management.

**Strategy 1.** Develop continuing medical education (CME) for physicians.

**Activity 1.** Tape video presentation by Helen Binns, M.D., for use in residency training programs.

**Activity 2.** Contact and partner with organizations that can offer CMEs for training sessions.

**Activity 3.** Seek help of medical schools and professional groups in scheduling CMEs.

**Activity 4.** Use video conference locations to minimize travel and to improve reach of CME programs.

**Activity 5.** Recruit and train other physicians to conduct training (train the trainer).

**Strategy 2.** Provide tools for physicians to use in their medical practices.

**Activity 1.** Work with Illinois Academy of Family Practice (IAFP) and Illinois Chapter of the American Academy of Pediatrics (ICAAP) to update professional position papers and consensus document on lead poisoning.

**Activity 2.** Work with physician groups to develop an office protocol to improve lead testing rates.

**Objective 4.** Educate local elected officials and other opinion leaders on the importance of childhood lead poisoning prevention.

Strategy 1. Recruit local officials in high-risk areas to serve on local advisory committees.

**Activity 1.** Identify appropriate officials for recruitment.

**Activity 2.** Encourage local advisory committees to meet regularly on lead issues.

**Activity 3.** Identify, evaluate and improve local building codes and ordinances.

**Activity 4.** Develop a sample "bench book" for judges hearing housing violations.

Screening Work Group

Goal 1. Simplify screening methods.

**Objective 1.** Develop a small container blood sample collection program.

Strategy 1. Collaborate with the IDPH laboratories to implement necessary changes.

- **Activity 1.** Determine expected cost for statewide micro container implementation.
- Activity 2. Implement effort at pilot sites.
- **Activity 3.** Develop training plan and materials.
- Activity 4. Implement program on a statewide level.
- Goal 2. Focus screening efforts on areas of highest concern.
  - Objective 1. Better identify high-risk groups.
    - **Strategy 1.** Modify risk assessment questionnaire to better identify high-risk groups.
      - **Activity 1.** Reassess current questionnaire and modify questions.
      - Activity 2. Draft modifications based on review.
      - Activity 3. Make initial modifications, review draft more widely and pilot.
      - **Activity 4.** Make final revisions and implement.
    - **Strategy 2.** Report to practices/providers on risks in their areas.
      - **Activity 1.** Plan reports by locale and review of plan by providers.
      - Activity 2. Draft modifications based on review.
      - **Activity 3.** Pilot distribution to key targeted areas.
      - Activity 4. Make final revisions and implement.
  - Objective 2. Screen at-risk children at appropriate ages.
    - **Strategy 1.** Provide feedback on current screening rates by area/practice.
      - **Activity 1.** Evaluate IDPH database for ability to produce reports by locale and plan reports.
      - **Activity 2.** Pilot test report functions in several communities and/or possible targeted areas (past and present).
      - **Activity 3.** Make revisions to report functions and fully implement.
    - **Strategy 2.** Clearly define ages and other specified groups for testing that may enhance prevention.
      - **Activity 1.** Develop and disseminate materials for new follow-up procedures.
      - Activity 2. Get provider response in targeted areas.

**Activity 3.** Revise guidelines based on review of delegate agencies and IDPH staff.

**Strategy 3.** Evaluate provider/practice screening through medical record review.

Activity 1. Obtain funding for additional staff for planning and implementation.

**Activity 2.** Conduct planning and implementation activities.

**Activity 3.** Disseminate materials and guide implementation.

#### Rural Work Group

Goal 1. Identify all children in rural Illinois who have elevated blood lead levels.

**Objective 1.** In each state fiscal year, increase the number of children tested in each targeted local health jurisdiction.

**Strategy 1.** Develop a social marketing campaign to reach citizens, elected officials, and business and community leaders.

**Activity 1.** Compile data on lead poisoning and population trends in rural Illinois.

Activity 2. Identify rural areas most affected and select target areas.

**Activity 3.** Encourage health insurance providers to cover testing.

Activity 4. Utilize health fairs and WIC clinics for mass screenings.

**Activity 5**. Provide physicians with technical assistance and evaluate their screening practices.

**Activity 6.** Support all activities with a consistent media campaign with uniform message.

Goal 2. Eliminate opportunities for environmental lead exposure in rural Illinois.

**Objective 1.** Increase the proportion of parents, health care providers, public health officials, landlords, tenants, property owners, merchant, contractors, etc., who are aware of the hazards of childhood lead poisoning.

**Strategy 1.** Increase lead abatement in rural Illinois.

**Activity 1.** Identify funding sources for rural lead abatement.

**Activity 2.** Provide training for homeowners, landlords and tenants on proper methods of cleaning and on other lead-safe practices.

**Activity 3.** Provide support to home improvement companies, hardware stores and homeowners to encourage safe practices during renovation projects.

**Activity 4.** Provide education for parents on proper food and water handling, breastfeeding, prevention of hand-to-mouth contamination and safe cleaning practices.

**Goal 3.** Improve compliance with lead-safe housing regulations.

**Objective 1.** Secure commitments from state's attorneys, county elected officials, legislators, housing agencies, contractors and landlords to support efforts leading to compliance with regulations.

**Strategy 1.** Improve compliance with local zoning regulations, ordinances and building codes.

- **Activity 1.** Educate state's attorneys, city and county elected officials, zoning and building officials about lead poisoning legislation.
- Activity 2. Develop baseline statistics on current regulatory activities.
- **Activity 3.** Develop uniform messages on regulatory activities for inclusion in professional and trade newsletters / magazines, as well as in mainstream media.

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# The Task Ahead

Strategy calls for achieving specific work tasks each year.

#### The Detailed Plan for Implementation

The work plan crafted by the advisory council is ambitious but achievable. While subject to modifications to meet the needs of an evolving and growing program, it provides the basic outline for the tasks that are to be accomplished in each year of the program. The following pages outline the year-by-year implementation of the work plan.

Task Description	Fiscal Years
Identify current educational and other materials available. Education Awareness, Goal - 1, Objective (Obj.) - 1	FY 05
Define "elimination." Conduct review of literature and develop consensus on what it will mean to "eliminate" childhood lead poisoning in Illinois. Evaluation, Goal - 1, Obj 3	FY 05
Define evaluation needs and identify data available. Evaluation, Goal - 1, Obj 2	FY 05
Define appropriate measurement tools for evaluation. Evaluation, Goal - 1, Obj 2	FY 05
Implement evaluation schema to provide timely feedback on success of interventions, Evaluation, Goal - 1, Obj 2	All years
Develop appropriate reporting mechanism for communicating the effectiveness of interventions. Publish an annual report card on progress toward eliminating childhood lead poisoning in Illinois. Evaluation, Goal - 1, Obj 3	All years
Define data elements for improved elevated blood lead data set. Develop 21 <sup>st</sup> century computer infrastructure necessary to operate the new data set. Evaluation, Goal - 1, Obj. – 1	FY 05, 06
Develop demographic-based denominators for determining rates. Evaluation, Goal - 1, Obj. – 1	FY 05
Improve and promote electronic reporting to provide more accurate, timely data. Evaluation, Goal - 1, Obj 1	FY 05, 06

Improve geocoding to allow for analysis at ALL geographic levels. Evaluation, Goal - 1, Obj. – 1	FY 05, 06
Compile data on lead poisoning and population trends in all geographic areas, particularly rural Illinois. Rural, Goal - 1, Obj 1	FY 05, 06
Seek U.S. Centers for Disease Control and Prevention assistance in conducting a National Health and Nutrition Examination Survey project in Illinois. Seek potential collaborators willing to co-fund this effort. Evaluation, Goal - 1, Obj 1	FY 05, 06
Identify appropriate target areas for all activities, particularly the most affected rural areas. Rural, Goal - 1, Obj 1	FY 05
Change recommended ages of screening to 9 and 18 months instead of 12 and 24 months. Screening, Goal - 2, Obj 2	FY 05
Develop expected cost estimates for statewide micro container implementation. Screening, Goal - 1, Obj 1	FY 05
Implement micro container sampling at pilot sites. Develop training materials. Screening, Goal - 1, Obj 1	FY 05
Revise "high-risk ZIP code" questions on the IDPH risk assessment questionnaire to reduce emphasis on the high-risk ZIPs. Make other modifications to the questionnaire as necessary. Screening, Goal - 2, Obj 1	FY 05
Pilot test revised risk assessment questionnaire. Screening, Goal - 2, Obj 1	FY 05
Create and continue operations of local advisory committees. Education Awareness, Goal - 1, Obj. $-4$	All Years
Develop targeted educational materials for various constituencies. Rural, Goal - 3, Obj. – 1	FY 05, 06
Pilot study educational materials targeting mom in obstetrical-gynecological and WIC clinics. Education Awareness, Goal - 1, Obj 1	FY 05
Develop social marketing program featuring celebrity spokesperson, including collateral material provided to parents of newborns, elected officials, business and community leaders. Education Awareness, Goal - 1, Obj 2 and Rural, Goal - 1, Obj 1	FY 06 and ongoing
Utilize health fairs and WIC clinics for mass screenings and informational events in target areas. Rural, Goal - 1, Obj 1	FY 06 and ongoing
Develop delivery mechanisms for educational materials through professional organizations, educational institutions, etc. Education Awareness, Goal - 1, Obj 3	FY 06
Contact and partner with organizations that can offer CMEs for training. Education Awareness, Goal - 1, Obj 2	FY 06

Tape Dr. Helen Binns' presentation and/or develop other materials for use in medical residency programs. Education Awareness, Goal - 1, Obj 3	FY 06
Work with IAFP and ICAAP to update professional position papers and consensus documents on lead poisoning. Include development of new protocol for lead testing. Education Awareness, Goal - 1, Obj 2	FY 06
Draft survey protocol and sampling procedures for NHANES style survey for Illinois. Education, Goal - 1, Obj 1	FY 06
Plan and pilot test medical record review initiative. Screening, Goal - 2, Obj 2	FY 06
Develop targeted local reports to health care providers on lead risk in their area. Pretest reports among select providers. Screening, Goal - 2, Obj 1	FY 06
Work with the hardware /' home center industry to develop and provide workshops for do-it-yourself homeowners. Education Awareness, Goal - 1, Obj 2	FY 06
Implement revised risk assessment questionnaire on a statewide level. Screening, Goal - 2, Obj. – 2	FY 06
Revise medical history form used in hospital and clinics to include lead questions. Education Awareness, Goal - 1, Obj 3	FY 06
Update immunization records to include lead questions. Education Awareness, Goal - 1, Obj. – 3	FY 06
Implement micro container sampling at statewide level. Screening, Goal - 1 , Obj 1	FY 06
Change local health department guidelines to require an environmental inspection for children 36 months of age and younger with a confirmed blood lead level of 15 mcg/dL (down from 20 mcg/dL). Primary Prevention, Goal - 2, Obj 1	FY 06
Lower the level at which a physician can order a home environmental investigation for children 36 months of age and younger to 10 mcg/dL. Primary Prevention, Goal - 2, Obj. – 1	FY 06
Identify specific funding sources for rural initiatives. Rural, Goal - 2, Obj 1	FY 06
Utilize videoconference locations to improve the reach of educational efforts and to decrease the burden of travel. Education Awareness, Goal - 1, - Obj 3	FY 07
Pilot distribution of targeted reports to health care providers in select areas. Screening, Goal - 2, Obj. – 2	FY 07
Identify and recruit a celebrity spokesperson for the media campaign. Education Awareness, Goal - 1, Obj 3	FY 07
Recruit physicians and other professionals to lead "train the trainer" efforts. Education Awareness Goal - 1, Obj 3	FY 07
	1

Draft legislation, including requirement for lead-safe housing inspection prior to sale of a home, acceptance into a publicly funded program or occupancy of a new tenant. Define re-inspection requirements by statute. Create registry of lead-safe housing. Primary Prevention, Goal - 1, Obj 1	FY 07
Draft legislation to monetarily fine physicians who are not screening according to sate law. Primary Prevention, Goal - 3, Obj 1	FY 07
Draft legislation requiring private insurance companies to pay for lead testing for children 36 months of age and younger. Primary Prevention, Goal - 3, Obj 1 and Rural, Goal - 1, Obj 1	FY 07
Identify potential sponsors for legislation, Primary retention, Goal - 3, Obj 1 and Goal - 1, Obj 1	FY 07
Develop grassroots lobbying effort using parents of lead poisoned children and celebrity spokesperson to push for passage of legislation. Primary Prevention, Goal - 1, Obj. – 1	FY 07
Make registry available to public for housing decision-making, including availability over the Web. Primary Prevention, Goal - 1, Obj 1	FY 07, 08
Identify, evaluate and improve local building codes and ordinances. Education Awareness, Goal - 1, Obj 4	FY 07, 08, 09
Develop a sample "bench book" for judges hearing housing violations. Education Awareness, Goal - 1, Obj 4	FY 08, 09
Make targeted lead risk reports available to health care providers in all areas of Illinois. Screening, Goal - 1, Obj 1	FY 08
Make registry available to the housing / real estate industries. Primary Prevention, Goal - 1, Obj 1	FY 08
Work with local officials to assure enforcement of the provisions of state law. Education Awareness, Goal - 1, Obj 4	FY 08

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# **Measuring Progress**

Evaluation is the key to assessing short-term and long-term progress.

#### What to Measure and How to Measure

How are public health professionals and stakeholders to know how well their efforts are doing? This question is to be heart of the need to evaluate the success of this strategic plan. Evaluation will provide the means to assess the short-term effectiveness of specific activities and interventions. It also will help the state to identify mileposts by which progress toward the overall Healthy People 2010 goal can be measured.

An Evaluation Work Group has been laboring to develop mechanisms that will allow the advisory council to establish benchmarks and to measure both short-term and long-term progress.

The ability to evaluate Illinois efforts effectively may be hampered by the lack of a modern data system for collecting, analyzing and reporting lead data. At the present time, data is available only for those children actually screened – presenting an unrepresentative sample of all Illinois children. The Evaluation Work Group has discussed the need for an National Health and Nutrition Examination Survey (NHANES) type survey for Illinois in order to have the ability to analyze the results of a truly representative sample of Illinois children. Additionally, more data should be collected on those children with elevated blood leads. An expanded data set will give the Department and its advisory council and the public health community in general better insights into the specific dynamics of this complex situation. While final recommendations will not be developed until the other work groups have completed their efforts, the Evaluation Work Group is offering the following preliminary recommendations:

**Goal 1.** Provide an effective framework for the evaluation of short-term and long-term outcomes form the implementation of this strategic plan.

Objective 1. Develop baseline data.

**Strategy 1.** Develop a generalizable assessment that will allow comparison of Illinois' rates of childhood lead poisoning with rates from other state and the nation as a whole (NHANES type survey).

Activity 1. Seek CDC assistance in conducting two Illinois surveys.

**Activity 2.** Seek potential collaborators willing to co-fund this effort.

- Activity 3. Develop sampling procedures and survey protocol.
- Activity 4. Conduct the survey; analyze and publish results.
- **Activity 5.** Conduct subsequent survey two to three years later; analyze and publish results.

Strategy 2. Develop an improved EBL data set.

- **Activity 1.** Define data elements for inclusion in data set.
- **Activity 2.** Develop 21<sup>st</sup> century computer infrastructure.
- **Activity 3.** Develop demographic-based denominators for determining rates.
- **Activity 4.** Improve and promote electronic reporting to provide more accurate, timely data.
- **Activity 5.** Improve geo-coding to allow for analysis at all geographic levels, such as counties, cities, ZIP codes and census tracts.

**Objective 2.** Develop methodology for evaluating effectiveness of specific interventions developed by work groups preparing this strategic plan.

**Strategy 1.** Work collaboratively with work groups to meet common needs.

- Activity 1. Define evaluation needs and data available.
- Activity 2. Define appropriate measures.
- **Activity 3.** Implement evaluation schema to provide timely feedback on success of interventions.
- **Activity 4.** Develop appropriate reporting mechanisms for results of evaluation of interventions.

**Objective 3.** Assess overall success of this strategic plan.

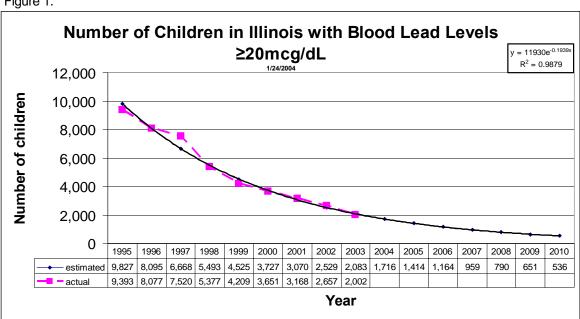
Strategy 1. Define "elimination."

- Activity 1. Conduct review of literature and identify best practices.
- Activity 2. Develop consensus definition of "elimination."
- **Activity 3.** Develop and publish annual report card on progress toward elimination.



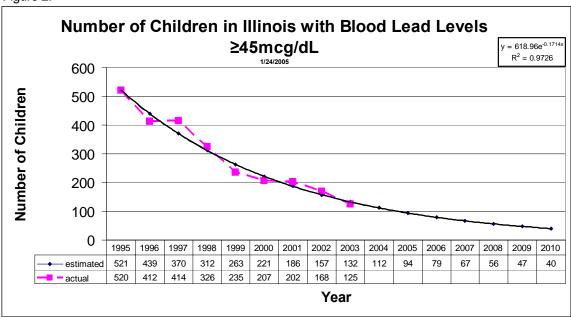
# Trend Analysis

Figure 1.



Source: Illinois Childhood Lead Poisoning Prevention Program

Figure 2.



Source: Illinois Childhood Lead Poisoning Prevention Program

Appendix

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# Prevalence Rate

By county for children 3 years of age and under

### **Illinois Department of Public Health**

Division of Children's Health and Safety Child Lead Poisoning Prevention Program

	Children 3 years of age and under				
County	2000 CENSUS population	Number of children tested	10mcg/dL and over	Prevalence of 10mcg/dL and over	Population of children tested (%)
Adams County	3,339	367	34	9.26	10.99
Alexander County	484	152	7	4.61	31.40
Bond County	781	203	6	2.96	25.99
Boone County	2,454	334	12	3.59	13.61
Brown County	213	29	2	6.90	13.62
Bureau County	1,658	180	5	2.78	10.86
Calhoun County	202	60	4	6.67	29.70
Carroll County	736	147	10	6.80	19.97
Cass County	736	175	10	5.71	23.78
Champaign County	8,414	1,196	37	3.09	14.21
Christian County	1,695	227	7	3.08	13.39
Clark County	798	16	0	0.00	2.01
Clay County	680	214	6	2.80	31.47
Clinton County	1,729	152	0	0.00	8.79
Coles County	2,282	250	8	3.20	10.96
Cook (w/o Chicago)	308,770	14,496	345	2.38	4.69
Crawford County	884	225	3	1.33	25.45
Cumberland County	560	26	1	3.85	4.64
De Witt County	821	232	6	2.59	28.26
DeKalb County	4,434	213	8	3.76	4.80
Douglas County	1,099	142	4	2.82	12.92

	Children 3 years of age and under				
County	2000 CENSUS population	Number of children tested	10mcg/dL and over	Prevalence of 10mcg/dL and over	Population of children tested (%)
DuPage County	52,161	2,277	33	1.45	4.37
Edgar County	917	109	13	11.93	11.89
Edwards County	310	84	3	3.57	27.10
Effingham County	1,947	70	1	1.43	3.60
Fayette County	1,071	299	12	4.01	27.92
Ford County	712	67	3	4.48	9.41
Franklin County	1,751	164	7	4.27	9.37
Fulton County	1,653	159	14	8.81	9.62
Gallatin County	266	68	1	1.47	25.56
Greene County	727	173	16	9.25	23.80
Grundy County	1,964	117	3	2.56	5.96
Hamilton County	400	40	1	2.50	10.00
Hancock County	886	220	18	8.18	24.83
Hardin County	208	22	4	18.18	10.58
Henderson County	372	61	0	0.00	16.40
Henry County	2,414	175	17	9.71	7.25
Iroquois County	1,485	151	6	3.97	10.17
Jackson County	2,402	630	18	2.86	26.23
Jasper County	448	37	0	0.00	8.26
Jefferson County	1,822	152	9	5.92	8.34
Jersey County	1,029	198	2	1.01	19.24
Jo Daviess County	989	128	6	4.69	12.94
Johnson County	486	11	0	0.00	2.26
Kane County	27,836	5,187	311	6.00	18.63
Kankakee County	5,814	1,320	56	4.24	22.70
Kendall County	3,452	200	3	1.50	5.79
Knox County	2,568	489	33	6.75	19.04
La Salle County	5,580	592	24	4.05	10.61
Lake County	41,897	4,063	70	1.72	9.70
Lawrence County	677	209	6	2.87	30.87
Lee County	1,541	58	7	12.07	3.76
Livingston County	1,891	466	27	5.79	24.64
Logan County	1,336	192	6	3.13	14.37
Macon County	5,830	1,731	149	8.61	29.69
Macoupin County	2,202	458	17	3.71	20.80
Madison County	12,878	1,205	35	2.90	9.36

	Children 3 years of age and under				
County	2000 CENSUS population	Number of children tested	10mcg/dL and over	Prevalence of 10mcg/dL and over	Population of children tested (%)
Marion County	2108	518	19	3.67	24.57
Marshall County	567	42	0	0	7.41
Mason County	739	92	4	4.35	12.45
Massac County	760	27	2	7.41	3.55
McDonough County	1,186	170	6	3.53	14.33
McHenry County	16,567	795	15	1.89	4.80
McLean County	7,720	1,299	31	2.39	16.83
Menard County	566	100	6	6.00	17.67
Mercer County	767	145	16	11.03	18.90
Monroe County	1,424	125	7	5.60	8.78
Montgomery County	1,364	307	10	3.26	22.51
Morgan County	1,554	400	29	7.25	25.74
Moultrie County	743	47	0	0.00	6.33
Ogle County	2,533	241	8	3.32	9.51
Peoria County	10,013	1,249	153	12.25	12.47
Perry County	978	115	9	7.83	11.76
Piatt County	799	124	8	6.45	15.52
Pike County	791	208	11	5.29	26.30
Pope County	166	8	0	0.00	4.82
Pulaski County	362	33	2	6.06	9.12
Putnam County	272	24	0	0.00	8.82
Randolph County	1,457	293	15	5.12	20.11
Richland County	810	104	2	1.92	12.84
Rock Island County	7,642	2,032	213	10.48	26.59
Saline County	1,215	338	9	2.66	27.82
Sangamon County	9,680	1,556	55	3.53	16.07
Schuyler County	321	29	1	3.45	9.03
Scott County	284	43	0	0.00	15.14
Shelby County	1,051	165	9	5.45	15.70
St. Clair County	14,005	1,983	109	5.50	14.16
Stark County	318	24	2	8.33	7.55
Stephenson County	2,376	598	46	7.69	25.17
Tazewell County	6,360	531	10	1.88	8.35
Union County	761	123	8	6.50	16.16
Vermilion County	4,471	444	35	7.88	9.93

	Children 3 years of age and under				
County	2000 CENSUS population	Number of children tested	10mcg/dL and over	Prevalence of 10mcg/dL and over	Population of children tested (%)
Wabash County	574	151	17	11.26	26.31
Warren County	858	164	13	7.93	19.11
Washington County	661	24	1	4.17	3.63
Wayne County	822	255	8	3.14	31.02
White County	608	181	11	6.08	29.77
Whiteside County	3,092	785	25	3.18	25.39
Will County	33,163	1,258	48	3.82	3.79
Williamson County	2,886	116	1	0.86	4.02
Winnebago County	15,681	2,489	113	4.54	15.87
Woodford County	1,847	54	0	0.00	2.92
Unknown		16,670	11	0.07	
Chicago*	174,455	53,711	3,675	6.84	30.79
Total	870,068	130,808	6,219	4.75	15.03

Source: U.S. Census Bureau: 2000 and Illinois Childhood Lead Poisoning Prevention Program