

Florida Department of Health Childhood Lead Poisoning Prevention Program

2003 Annual Report



A letter from the coordinator

Dear Colleague:

Over the past several years the nation has seen a dramatic decrease in the incidence of childhood lead poisoning. We are pleased with this progress, though our work is not yet done.

Regrettably, numerous factors and sources of lead continue to contribute to lead poisoning in Florida's children. Furthermore, new research suggests that blood lead levels lower than the current level concern, 10 µg/dL, can have harmful effects¹. Florida has an estimated 433,000 homes built before 1950 that likely contain lead-based paint, a common source of childhood lead exposure. Other sources of childhood lead exposure may include some home remedies, toys, make up, jewelry, pottery, imported candy and mini-blinds. "Take home lead", carried home in the form of dust on the clothes or shoes of adults whose hobbies or occupations involve lead, is another source of childhood exposure.

The good news is lead poisoning is completely preventable and we can work together to eliminate these sources in order to protect our children! The Childhood Lead Poisoning Prevention Program (CLPPP) and the Florida Department of Health are committed to coordinating statewide efforts to reach the Healthy People 2010 goal of eliminating childhood lead poisoning in Florida.

This report details the Program efforts and achievements in 2003. The year brought a new focus and structure to Florida's CLPPP. Pinellas, Miami-Dade and Duval counties, previously independently funded lead poisoning prevention programs, joined with the state CLPPP to increase primary prevention efforts throughout the state. Together, we developed additional partnerships with local, state and national stakeholders to increase efforts towards the elimination of this preventable children's health condition.

We will need the participation of many, including you, to educate the community, increase screening of at-risk children and develop protective health and housing policies. These are critical components to reaching our goal.

We applaud the hard work of those serving families already affected by lead poisoning and hope you are inspired to further your efforts to protect others from this unnecessary condition. Our children are our most valuable asset. Working together we can eliminate lead poisoning and help ensure their healthy futures.

Sincerely,

Julie Kurlfink
Program Coordinator
Florida Childhood Lead Poisoning Prevention Program

¹ Canfield RL, Henderson CR, Cory-Slechta DA, Cox C, Jusko TA, Lanphear BP. Intellectual Impairment in Children with Blood Lead Concentrations below 10 µg per Deciliter. *New England Journal of Medicine* 2003; 348:1517-26.

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Program Mission

MISSION

The mission of Florida's Childhood Lead Poisoning Prevention Program (CLPPP) is to protect the health and cognitive development of all children living in Florida by minimizing childhood exposure to all lead hazards.

ABOUT THE PROGRAM

Florida's CLPPP was established in 1992 with a grant from the Centers for Disease Control and Prevention (CDC). During that same year, lead poisoning became a notifiable disease in the state. In 1993, the Program began collecting and entering laboratory-based surveillance data into the state database housed at the Florida Department of Health in the Division of Environmental Health in Tallahassee. The state CLPPP also coordinates with national, state and local partners to support blood lead screening, case management and primary prevention activities across the state. Two people staff the state CLPPP in the Bureau of Community Environmental Health, Julie Kurlfink, Program Coordinator and Susan Limbaugh, Assistant Coordinator. The Program's supervisor, Dr. Carina Blackmore, and Principal Investigator, Eric Grimm, oversee the activities and consult on program activities.

County health departments (CHDs) in Miami-Dade, Pinellas, and Duval counties operate comprehensive lead poisoning prevention programs that provide case management, environmental health inspections, public education, and screening. These programs are coordinated at the local level by Juan Carlos Santana at Miami-Dade CHD, Melanie Thoenes at Pinellas CHD and Dr. Tiffany Turner at Duval CHD.

FUNDING

The Florida CLPPP continues to receive funding from CDC and was awarded an estimated one million dollars for lead poisoning surveillance and primary prevention in 2003. The 2003 budget was significantly larger than in previous years because of the inclusion of funds for three previously independently funded county health department (Duval, Miami-Dade and Pinellas) CLPPPs. In addition to the funds distributed to the three county health departments that operate comprehensive programs, funds were also distributed to Broward, Hillsborough, Orange, Palm Beach and Polk counties. All eight counties have a large number of older housing units and at-risk children.

Florida CLPPP funds were used toward the purchase of part-time and full-time employees to coordinate and/or assist with educating the public, improving the screening rate, providing comprehensive case management, and developing partnerships to coordinate primary prevention activities. Funds were also used for travel and to purchase outreach materials or other services. The Program conducts grant business by the fiscal year July 1 to June 30, however quarterly and annual reports are generated according to the calendar year.

ELIMINATING LEAD POISONING BY 2010

The United States Department of Health and Human Services' Healthy People 2010 strategy for improving the Nation's health includes eliminating elevated blood lead levels in young children aged one to five years old. The CDC requires all state and local CLPPPs, including Florida's program, to develop a strategic plan to meet this objective. They encouraged the states to convene an advisory committee to assist in the development and implementation of a jurisdiction wide plan to eliminate lead poisoning.

The Florida CLPPP began coordinating an advisory committee in late 2003 to develop a jurisdiction wide plan for eliminating childhood lead poisoning. The plan will be developed and completed in 2004.

Lead Poisoning in Florida

According to the CDC, Florida ranks eighth in the nation for number of estimated children with elevated blood lead levels. The CDC has further estimated that there are 7,400 children with elevated blood lead levels in nine Florida cities that have a population of or greater than 100,000. The cities of Jacksonville and Miami rank thirty-first and thirty-second, respectively, among large cities in the United States. Each of these cities has an estimated 1,900 lead poisoned children within its limits.

Florida's Case Definition of Lead Poisoning

Florida defines childhood lead poisoning as blood lead levels of 10 micrograms per deciliter ($\mu\text{g}/\text{dL}$) or greater of whole blood measured from a venous specimen or blood lead levels of $10\mu\text{g}/\text{dL}$ or greater measured from two capillary draws taken within 12 weeks of one another, detected in children less than 72 months of age.

Sources and Pathways of Lead Exposure in Florida

➤ **Lead-Based Paint Hazards**

Lead-based paint found in older homes is still the most important source of lead in the environment. As homes with lead-based paint age, the paint begins to deteriorate. Deterioration is exacerbated around friction surfaces and on surfaces exposed to weatherization such as exterior surfaces or areas affected by leaks or other types of structural damage. The dust created when paint wears is easily accessible to children since it often settles on floors or bare soil where they are most likely to play. Renovation or construction work done in older homes containing lead-based paint is also a potential cause of harmful concentrations of hazardous lead dust in the environment of a child.

Although it is difficult to determine the exact number of properties in Florida that contain lead-based paint hazards, a review of 2000 census data for Florida indicates that there are approximately 433,564 housing units built before 1950 and approximately 2,000,000 housing units built before 1970. This is of concern since lead-based paint containing up to 50% lead was widely used through the 1940s. A decline in the use and manufacture of lead-based paint began in the 1950s, however, lead-based paint continued to be available for use in residential dwellings until 1978.

Age of a home is a useful indicator of the presence of lead-based paint; however age alone does not indicate whether the paint is posing a significant health threat. Frequently, age of home is considered in combination with socioeconomic indicators. For example, low income families owning or renting homes built before 1978 often have an increased risk of exposure due to lack of financial resources needed to maintain paint surfaces.

Certain counties in Florida have larger concentrations of pre-1950, pre-1970 housing and renter-occupied housing. These counties are Duval, Miami-Dade, Pinellas, Broward, Hillsborough, Orange, Palm Beach and Polk.

➤ **Take-Home Lead from Occupations and Hobbies**

A number of work and hobby environments expose adults to lead and may result in exposure or lead poisoning for their families. Parents or caretakers whose occupations or hobbies expose them to lead have the potential to transfer hazardous lead dust from their place of work or recreation to the car, home or yard where it becomes accessible to young children or pregnant women.

A number of businesses and industries that use lead or lead products in Florida have been linked with elevated blood lead levels in adults, and take-home exposures have been documented as causing lead poisoning in young children across the state. A formal analysis has not yet been done to determine the full impact of take-home exposures on Florida children, but at this time anecdotal evidence supports the need for further investigation and remediation of this exposure source.

➤ **Foreign Sources**

Florida's diverse pediatric population includes immigrants, refugees, and foreign-born children (e.g. out-of-country adoptions) that are considered to be at risk for lead poisoning because of specific high risk behaviors including customary use of foreign products containing unsafe levels of lead. High risk customs and behaviors that often continue even after relocation to Florida include the use of herbal and home remedies, use of lead contaminated pottery, consumption of imported candies or spices, and hobby/occupational practices such as fishing, battery recycling and car repair.

Florida is a resettlement site for a large number of Cuban and Haitian refugees, as well as immigrants from Mexico. Children relocating to Florida from these and many other countries may arrive with elevated levels of lead in their blood. Exposure is likely caused by continued, widespread use of leaded gasoline; unregulated industrial lead emissions; and cottage industries involving the recycling of lead products in the country of origin.

➤ **Consumer Products**

In Florida, consumer products containing unsafe levels of lead are a small, yet concerning source of exposure for children. Products of significance include children's jewelry, mini-blinds, lead-glazed pottery, fishing lures, stained glass, tile, sidewalk chalk, and ammunition.

Florida's "At Risk" Populations

All children under the age of 72 months are potentially at risk for lead poisoning since children are prone to more hand-to-mouth activity than adults. In addition, their rapidly developing bodies absorb lead more readily than adults. Children less than six years of age living in homes built before 1978, foreign-born children and children whose family members participate in activities such as the use of leaded pottery, non-western home remedies and hobbies or industries involving lead have an increased risk of lead poisoning. Of particular concern are children of low-income families and minority populations who frequently live in older homes that are in substandard or deteriorated conditions.

The distribution of elevated blood lead levels among children is not even across the population. According to the CDC poor and minority children are disproportionately affected². The demographic and socioeconomic differences in Florida's large pediatric population underscore the importance of addressing the preventable condition of childhood lead poisoning. Currently, Florida is the fourth largest state in the nation and has the nation's fourth highest live birth rate. It is home to an estimated one million children less than 72 months of age. For 2003 the state had an estimated 477,600 Medicaid-eligible children less than 72 months. According to the 2000 census, non-whites comprise roughly 22 percent of Florida's population and 16.7 percent of the population is foreign-born. These statistics illustrate the distinct vulnerability of Florida's pediatric population to the lead sources discussed above.

² *Preventing Lead Poisoning in Young Children*, Centers for Disease Control and Prevention, 1991.

2003 Activities and Accomplishments

The year 2003 brought new structure and focus to Florida's CLPPP. Three previously independently funded programs in Pinellas, Miami-Dade and Duval counties joined with the state CLPPP to better coordinate statewide primary prevention efforts. Together CLPPP made a concerted effort to explore statewide strategies for eliminating childhood lead poisoning. While continuing statewide surveillance, case management and screening activities, the programs worked together to coordinate partnerships with local, state and national stakeholders that will move forward efforts to eliminate of childhood lead poisoning in Florida.

The activities and accomplishments of the CLPPP in 2003 illustrate the commitment of the Program and its partners to reaching the 2010 goal. The Program's efforts to educate the public, improve the screening rate, provide comprehensive case management, and develop partnerships for primary prevention are described in more detail in the following pages.



Surveillance

Lead poisoning became a notifiable disease in Florida in 1992. The first laboratory data were collected in 1993 and are housed in an Access database located in the Department of Health Bureau of Environmental Epidemiology, now the Bureau of Community Environmental Health in Tallahassee, Florida.

The Surveillance Process

The majority of reporting laboratories provide blood lead level test results in electronic format to the Program. The data are entered into the state database and subsequently distributed electronically to the lead contact person at each of the 67 county health departments. The lead contact person then enters the data into Merlin, the state's web-based system for the reporting, management, and epidemiological analysis of disease information. It is the primary reporting tool for all county health departments. Merlin can also be used as a tool to track case management activities of lead poisoned children. In addition, Miami-Dade, Duval and Pinellas counties enter data into a data system called the Systematic Tracking of Elevated Lead Levels and Remediation database (STELLAR). STELLAR provides an electronic means of addressing the data that the program receives from labs, providers, clinics and case managers.

The state CLPPP produces and submits quarterly data reports to the CDC. It also produces annual reports published on the CLPPP website. Blood lead data are analyzed throughout the year to identify areas of high prevalence of lead poisoning. The results enable the Program to target education and outreach efforts to improve screening rates.

Laboratory Reporting Requirements

The Florida Statutes, Chapter 381, "Report of Diseases of Public Health Significance to Department", and Chapter 64D-3, of the Florida Administrative Code, "Control of Communicable Diseases and Conditions Which May Significantly Affect Man", address the reporting of notifiable diseases by laboratories.

Laboratories have a 72-hour time frame in which to report an elevated blood lead level with the following identifying information:

- Name and date of birth of the patient from whom the specimen was taken.
- Name, address and telephone number of the processing laboratory.
- Diagnostic test performed, specimen type and result.

In addition to the above, laboratories must supply:

- Address including zip code, telephone number, race, sex, ethnicity and social security number of the patient.

If these are not available then laboratories must supply:

- Name, address, and telephone number of the submitting physician or health care provider.

In addition to these minimum requirements outlined in the Florida Administrative Code, the program also requests:

- An indication if the individual is receiving Medicaid.
- That all blood lead test results (not only those greater than or equal to 10µg/dL) be reported.
- That all reports be submitted via regular mail service on a computer diskette or encrypted and emailed.

The Program has developed strong working relationships with reporting labs and currently receives both positive and negative test results from the majority of laboratories doing blood lead level testing of Florida residents. Test data are extremely valuable as they help the Program to understand the total number of children being screened and allows Program staff to determine the screening rates.

2003 Reporting Laboratory Survey

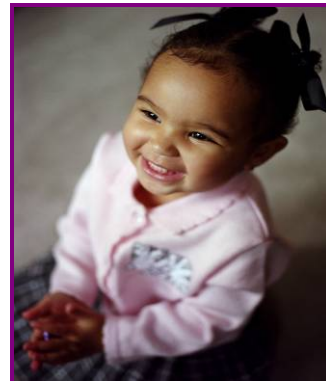
In 2003 Miami-Dade County Health Department's CLPPP initiated a laboratory survey requesting laboratories listed in the STELLAR database to report the total number of blood lead tests performed in Miami-Dade County during calendar year 2002. Seventeen (65%) of the twenty-six laboratories participated in the laboratory survey.

The results of the laboratory survey indicated the need to work more closely with laboratories to ensure reporting of *all* blood lead levels. Program staff responded by contacting laboratories to build relationships and create partnerships. The cooperation of reporting laboratories has led to continuous improvement in the quality and quantity of data collected. In 2003, approximately 90% of test results reported to the state CLPPP were reported electronically.

Data Requests

The Florida CLPPP is committed to responding in a timely manner to data and information requests from the public or other agencies. In 2003, the Program responded to numerous data requests from such sources as:

- MPH students
- City of Miami
- Agency for Housing and Urban Development
- Florida International University
- Parents
- Physicians



Screening

Ensuring all children at risk are screened for lead poisoning is a top priority for the Florida CLPPP. The Program makes continual efforts to reach physicians in order to reinforce their crucial role in protecting children from lead poisoning and identifying children in need of treatment and case management.

Florida CLPPP developed and published statewide screening guidelines in 2001. The document recommends that health care providers screen children under six years old who are Medicaid eligible, immigrants, refugees, adopted from outside the U.S., in foster care or living in identified target zip codes. It strongly recommends that health care providers utilize a lead risk questionnaire to determine if a child has risk factors for lead poisoning and needs a blood lead test. In the updated case management guidelines the Program also reminds physicians who receive a lab report for a child with a blood lead level above 20µg/dL to report the case immediately to the county health department to coordinate the initiation of case management and environmental investigations.

Many county health departments in Florida including the Pinellas County Health Department Lead Intervention Team, the Duval County Health Department and the Miami-Dade County Health Department offer blood lead tests for children 0-6 years of age. These tests are administered on a walk-in basis (no appointment necessary) in several locations throughout the state and clients are charged based on their ability to pay.

Reducing the Incidence of Unsatisfactory Blood Lead Samples for Testing

CLPPP has observed that the high incidence of unacceptable blood lead samples is a major barrier to identifying children with lead poisoning. To address this problem, the Program investigated the cause of unsatisfactory samples and developed a protocol to educate providers on the proper technique for collecting capillary blood lead samples. Distribution of the laminated one-page protocol will take place in 2004.

Outreach Activities to Increase Screening Rates by Private Providers

CLPPP is always seeking opportunities to educate physicians on the importance of screening at-risk children. In 2003 CLPPP undertook several activities to engage physicians in screening. Highlights include:

- Quarterly newsletters including blood lead screening of children were mailed to physicians in Pinellas and Hillsborough counties.
- Grand Round educational presentations were conducted in Duval and Miami-Dade counties.
- Pinellas CLPPP developed and distributed prenatal lead screening guidelines to health care providers in the Clearwater area of Pinellas County which serves immigrants from Hidalgo, Mexico, where environmental lead risks hazards are widespread.
- Miami-Dade CLPPP published articles in the CHD Epidemiology Monthly newsletter.
- A partnership was established with the Florida Alliance to Eradicate Childhood Lead Poisoning/Project Against Lead (PAL) to reach physicians through the American Academy of Pediatrics.
- Miami-Dade CLPPP Coordinator presented to orientation sessions for the Medipass program.
- Duval CHD provided health education information to parents at local clinics to increase awareness and screening in high risk zip codes.
- Duval CHD worked with three WIC clinics in Duval County to provide screening to children and pregnant women.

Case Management

The Florida CLPPP recommends that children with elevated blood lead levels at or above 10µg/dL receive case management as defined in the Florida Department of Health's "Quick Reference for Diagnostic and Follow-Up Activities for Confirmed Venous Blood Lead Levels \geq 10µg/dL Found in Children <72 Months Of Age." In Florida, comprehensive case management includes providing health education about lead poisoning prevention, nutrition, hazard reduction and household cleaning tips. Case management also involves ensuring proper medical follow up and coordinating environmental health investigations to determine the source of lead exposure. The goal of these case management activities is to reduce exposure and maintain the blood lead levels below the level of concern.

Prompt and effective case management of children with elevated blood lead levels is a primary concern of the Florida CLPPP. The Program supports Department of Health (DOH) Maternal and Child Health (MCH) nurses, Children's Medical Services (CMS), and Environmental Health staff at local county health departments in the provision of comprehensive case management services to all children with blood lead levels above of 20µg/dL and to children with two or more venous blood lead levels of 15-19µg/dL at least 3 months apart. Services are coordinated in each county by the identified case management coordinator.

New Case Management Guidelines

In 2003, the Florida CLPPP worked with interagency partner, MCH, to update the statewide case management guidelines. The updated guidelines are documented in the Florida Department of Health's "Quick Reference for Diagnostic and Follow-Up Activities for Confirmed Venous Blood Lead Levels \geq 10µg/dL Found in Children <72 Months Of Age." This guidance document, commonly referred to as the "case management guidelines", includes the practices outlined in the March 2002 CDC publication entitled, "Managing Elevated Blood Lead Levels Among Young Children".

Partnership with FL DOH Division of Children's Medical Services

With the leadership of FL DOH Children's Medical Services program, CLPPP furthered its interagency partnership with the CMS program in 2003. CMS provides children with special health care needs a family-centered, managed system of care. Children with special health care needs are those children under age 21 whose serious or chronic physical or developmental conditions require extensive preventive and maintenance care beyond that required by typically healthy children. CMS revised their lead screening policy. The policy allows providers to refer children with confirmed blood lead levels of 10µg/dL or greater to CMS. CMS will provide medical and nursing case coordination if the referred child meets CMS eligibility. The partnership will enable CLPPP to begin redirecting its focus from case management to primary prevention. An announcement of the updated policy was sent to all county health departments via an Interoffice Memorandum from Bonnie Sorenson M.D. M.B.A., Deputy State Health Officer and S. Elizabeth Ford, M.D., M.B.A., Deputy Secretary, CMS. The protocol for referral to CMS is documented in the updated case management guidelines mentioned above.

Training

In 2003, CLPPP hosted a Lead Risk Assessor/Inspector training to increase the number of EPA certified risk assessors available at county health departments. Nine county health department employees attended a three day training workshop in order to perform environmental health investigations for children with blood lead levels above the level of concern.

Efforts to Allow County Health Department's to Cover the Cost of Risk Assessor Certification

Environmental Investigation is an important part of identifying and eliminating the sources of lead for lead poisoned children. Florida's case management guidelines recommend that children with a blood lead level of 20µg/dL or persistent levels above 15µg/dL receive an environmental investigation. Environmental Investigations should be conducted by certified risk assessors trained through the Environmental Protection Agency's (EPA) Lead Based Paint Training and Certification Program. Unfortunately, the cost of training and certification is a barrier to providing this service since individuals currently are paying out-of-pocket for the cost of training and certification. In 2003 the Florida CLPPP proposed legislation to enable county health departments to expend funds to cover the cost of training and certification related to the provision of environmental investigations. The proposal was approved by the Florida legislature in 2004.

Development of a Lead Poisoning Prevention Education Checklist in English and Spanish

The Miami-Dade CLPPP developed a checklist of recommendations concerning lead poisoning prevention and treatment in English and Spanish for their clients. The checklist serves as a means to remind clients and case managers of the specific recommendations tailored to individual cases, which includes nutritional, environmental, medical follow-up and other relevant information. The checklist will be mailed to clients after the initial phone call, home visit and home inspections are complete. A copy of the checklist is also kept in the client file.

Additional Case Management Activities

In support of the Healthy People 2010 goal, Pinellas CHD and other CHDs have made efforts to intensify education to families with children identified with high-normal blood lead levels (6-9µg/dL). Prompt contact with families increases the likelihood that the Program will be able to work with the family to identify the source of exposure and prevent further exposure.



Education and Outreach

Education and outreach efforts of the CLPPP focus on the dangers of lead poisoning to two groups most at risk for serious effects of lead poisoning; children younger than 6 years old and pregnant women. High risk communities, parents, pregnant women, medical and public health professionals, educators, community organizations, child care providers, and the general public are the target audiences for educational programs about lead poisoning. Topics include: introduction to lead poisoning, identification of sources of exposure, recognition of harmful effects of lead poisoning in children and adults (both short-and long-term) and dissemination of resources for prevention. As part of innovative lead poisoning prevention initiatives, the Program teaches communities risk reduction strategies such as proper hygiene practices, specialized home cleaning techniques, nutrition and/or dietary practices to reduce lead absorption.

Publications

The Florida CLPPP wrote and/or contributed to articles published in the following newspapers, magazines and newsletters during 2003:

- Dade County Medical Association newsletter and journal
- MDCHD Epidemiology Monthly Newsletter
- City Limits Magazine (September/October 2003) "Politics of Paint"
- St. Petersburg Times

New Brochures

The following brochures were developed by CLPPP in 2003:

- Providing a Barrier Between your Children and Lead Hazards: Planting Appropriate Ground Cover
- Lead Poisoning Prevention Guidelines For Prenatal Care Providers
- Adult Lead Poisoning, Preventing Take-Home Lead Exposure
- What Every Shooter Should Know About Lead Hazards in Firing Ranges
- What You May Not Know about Your Teeth and Lead (English and Spanish)
- What Renters, Buyers, Sellers, and Renovators Should Know About Lead –Based Paint Hazards
- Warning: Lead Hazards in Stained Glass Windows and Products

TV and Radio

In 2003, CLPPP participated in the following television and radio spots:

- Miami-Dade CLPPP Epidemiologist, Maria Bustamante, was interviewed about lead poisoning prevention on the Spanish TV station.
- Dr. Tiffany Turner, Program Coordinator, Duval County CLPPP conducted a radio and television interview outlining the hazards associated with lead-based paint.
- Duval CHD presented lead poisoning prevention information on a Latin Radio talk show.

Presentations

Over the past year, the Program conducted outreach activities to educate parents, communities, and professionals about the dangers of lead poisoning. Program staff across the state spoke to medical and housing professionals, landlords, teachers, parents, childcare providers and community members at community based organizations, health fairs, public health conferences, housing agencies and neighborhood associations.

Press Releases

- October 23, 2003: CLPPP and AHCA put forth a press release announcing National Lead Poisoning Prevention Week.
- November 23, 2003: CLPPP and the Department of Agriculture and Consumer Services put forth a press release addressing the recall of toy necklaces containing hazardous concentrations of lead. The release was triggered by the findings of a middle school student's science fair project. Kudos to Ali Botet, the middle school student that made the discovery, and her mother Lori Theisen, a county health department epidemiologist in Florida, for their dedication to protecting children from lead!

Governors Proclamation

As part of National Lead Awareness Week, Governor Jeb Bush acknowledged those observing National Lead Awareness Week. The proclamation focused on lead-based paint, as it is the most common source of childhood lead exposure, and highlighted the importance of targeted screening by public and private health care providers.



Collaboration for Primary Prevention

The elimination of childhood lead poisoning cannot be accomplished in isolation by one activity or entity. CLPPP works in collaboration with many partners at the federal, state and local level to coordinate the provision of case management services, education and outreach, screening, and lead abatement. The year 2003 marked the beginning of the formal coordination of state and local partners in the development of a plan to eliminate of childhood lead poisoning. As previously mentioned, the United States Department of Health and Human Services' Healthy People 2010 strategy for improving the Nation's health includes eliminating elevated blood lead levels in young children aged one to five years old. An advisory committee was convened in late 2003 to address this challenge. The Program is working with the committee to develop a jurisdiction wide strategic plan to meet the elimination goal. The plan will be complete in late 2004.

In 2003, the Program also worked as part of local coalitions in Miami-Dade, Duval, Hillsborough and Pinellas counties. These coalitions consist of city government officials, county and city housing authorities, local non-profit organizations, medical providers and other stakeholders interested in preventing childhood lead poisoning. It is our hope that the combined efforts of individual stakeholders at the local level will result in the development of lead poisoning prevention policies and leverage scarce funding for lead hazard abatement.

State Collaboration Highlights

- **FL DOH Office of Maternal and Child Health (MCH):** CLPPP has a close interagency relationship with the MCH in the Florida Department of Health. MCH staff provide continued support of CLPPP program goals including case management and the elimination of childhood lead poisoning.
- **FL DOH Division of Children's Medical Services (CMS):** CMS worked with CLPPP and MCH to establish a referral system allowing eligible lead poisoned children to receive medical case management from CMS. This effort will enable CLPPP staff in high risk areas to increase time spent coordinating primary prevention activities.
- **Kiwanis:** The Florida chapter of Kiwanis has been proactive in determining their role in protecting children for lead poisoning. CLPPP provided several Kiwanis clubs with educational information and partnered with Kiwanis volunteers to distribute educational information at health fairs in high risk areas.
- **The Agency for Health Care Administration (AHCA):** In 2003, the Bureau of Medicaid Services worked diligently with CLPPP to update the Memorandum of Understanding to facilitate data sharing between AHCA and FL DOH. In addition, AHCA undertook various activities to educate private providers and families about the importance of blood lead screening for children under age six.

Local Collaboration Highlights

Pinellas County

- **Pinellas County Licensing Board for Day Care and Family Day Care Homes:** Pinellas County CLPPP collaborates with this board and inspects day care centers.
- **Minority Health Division of Pinellas CHD.** The Minority Health Division at Pinellas CHD addresses minority health issues. Pinellas CLPPP works closely with this division to provide lead poisoning education to youth and parents at grass roots organizations, churches, and health fairs throughout the community.

- **Pinellas County Head Start and Early Head Start:** In Pinellas County, CLPPP works with Head Start and Early Head Start to screen children in high-risk areas.

Duval County

- **Jacksonville Housing Partnership:** Duval County Health Department worked with the Jacksonville Housing Partnership to obtain a 2.3 million dollar Lead Hazard Control Grant to remediate lead-based paint hazards in Duval County.
- **City of Jacksonville:** An alliance was formed with the City of Jacksonville to inspect homes prior to performing renovations and to perform a clearance inspection after renovations to ensure a lead-safe environment.
- **Local City and County Housing Authority:** Local city and county housing authorities administer the Section 8 voucher program and other public housing programs. All housing authorities are required to abide by the federal lead-based paint regulations. Duval County CLPPP conducted risk assessments for lead hazards on public housing properties at a reduced cost.

Miami Dade County

- **Miami-Dade Weed and Seed:** Weed & Seed is a non-profit community based organization that works for the betterment of residents in Liberty City and Little Haiti to alleviate the ills associated with crime, drugs, trafficking, environmental and health related issues. Miami-Dade CLPPP works with Weed and Seed to address lead poisoning in these high risk areas.
- **Partnership Against Lead/Florida International University:** Information was provided to PAL regarding physicians that provide screening during well baby visits. Collaboration will help increase the screening of Medicaid eligible children in high risk zip codes in Miami.

2003 Childhood Blood Lead Surveillance Data Analysis

Blood Lead Screening Test Data

Throughout the year, data are systematically collected through the statewide laboratory surveillance system. Information routinely gathered and analyzed is related to blood lead screening activities, case reporting and case management of lead poisoned children.

Analyses conducted for the year 2003 revealed that a total of 152,784 screening test (capillary, venous and unknown) results for children under age six in Florida were submitted to the CLPPP. Twenty laboratories reported blood lead level screening test results. Of these laboratories, 50% are based in Florida. Moreover, at least 90% of test results were reported electronically. The State Laboratory in Jacksonville, which receives the majority of its blood samples from county health departments, tested 14,581 samples, or 8% of all screening results reported to CLPPP. This indicates that an overwhelming majority of the testing for lead poisoning in children under age six in the state of Florida was done by private laboratories.

Of the total number of screening tests performed, 2% (2,730) indicated elevated blood lead levels ($>10 \mu\text{g}/\text{dL}$). In addition, 8% (11,923) of the tests conducted had results between 6 – 9 $\mu\text{g}/\text{dL}$ of lead in the blood. Although these results were not considered “elevated” according to the case definition, they may indicate the availability of lead in the environment of a child.

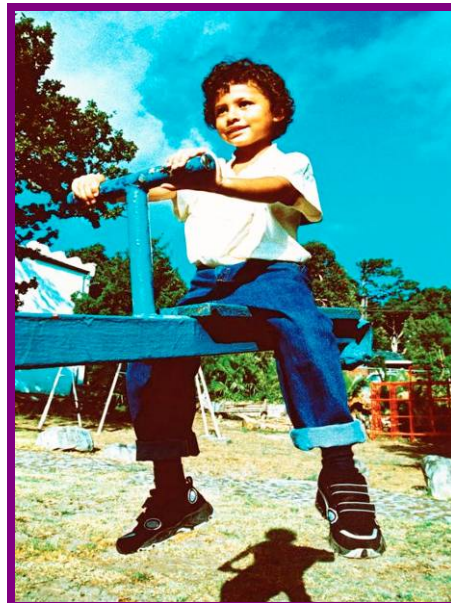
Of 1,378 children who reportedly had elevated blood lead levels on a preliminary blood test (venous, capillary and unknown), 56% never received the recommended follow-up blood test. Many situations make it difficult to arrange or provide follow up screening. Some the children did not receive follow up tests because the family chose not to follow the health department’s or physician’s recommendations. The transient nature of the high-risk population in Florida also makes it difficult to assure follow up testing. Many families in the high-risk populations frequently change residence, making it difficult for case managers to contact families for follow up. The percentage of children that did not receive follow up may also be influenced by the number of children that required a confirmatory blood lead level test provided and reported to the program after the end of the calendar year discussed in this report. However, of the children who did have a confirmatory test performed, 89% received this confirmatory blood test within the recommended time frame detailed in the state guidelines. Of the children who did get a follow-up test, only 31% had elevated blood lead levels on repeat tests. The high percentage of children who no longer had elevated blood lead levels in repeat tests may be the result of false positive preliminary test results. False positives are commonly caused by contamination of the specimen at the moment of taking the blood sample or during analysis. False positive results place an undue burden on all aspects of the screening and case management system. The Program seeks to reduce the occurrence of false positives in 2004.

There were 1,990 tests submitted by reporting laboratories that were classified as “unsatisfactory”; therefore unsuitable for processing. Some possible reasons for unsatisfactory blood samples include insufficient quantity of blood, no laboratory slip submitted, contaminated sample, or clotted blood. The unsatisfactory samples can be used as an indicator of the quality of the health care being provided at the point of service. Of children who received an unsatisfactory blood lead level test result, 780 (39%) received a follow up test. Twenty-six of the 780 children had a second follow up test classified as “unsatisfactory”. Frequent unsatisfactory blood lead samples place a burden on the screening and case management system as a whole and can be a barrier to identifying lead poisoned children.

All sixty-seven counties in Florida conducted blood lead level screening tests on children less than six years of age. In 2003 lead poisoning screening results were reported for 141,428 children in Florida. However, most of the reported test results came from children in seven of the more populous counties. The counties with the highest number of children screened include Miami-Dade (27%), Broward (15%) and Hillsborough (8%). Of the total number of children screened in the state in 2003, 73% were from the eight high risk counties (Broward, Miami-Dade, Duval, Hillsborough, Orange, Palm Beach, Pinellas, and Polk) These counties have the largest number of pre-1950 housing, largest population of young children, and the largest segment of Medicaid-eligible children.

Another population considered at higher risk due to lower socio-economic status is Medicaid eligible children. Federal regulation requires Medicaid eligible children to be screened for lead poisoning at 12 and 24 months of age, and between the ages of 36 months and 72 months of age if they have not been previously screened for lead poisoning. In Florida, approximately 477,600 children under six were eligible for Medicaid in 2003. CLPPP collects data on the Medicaid status of children screened for lead. The Program's laboratory data indicates that an estimated 54,462 (39%) of the total number of children screened in 2003 were Medicaid eligible. However, 84,777 (60%) of blood lead tests reports from laboratories had an unknown Medicaid status. The large percentage of children with unknown Medicaid status limits the program's ability to determine the true percentage of Medicaid children being screened. Attaining data regarding the Medicaid status of children screened for lead is a large priority for the program in the upcoming year. Toward this end AHCA and CLPPP recently established a data sharing agreement to assure both programs are able to more accurately assess the number of Medicaid children receiving blood lead tests.

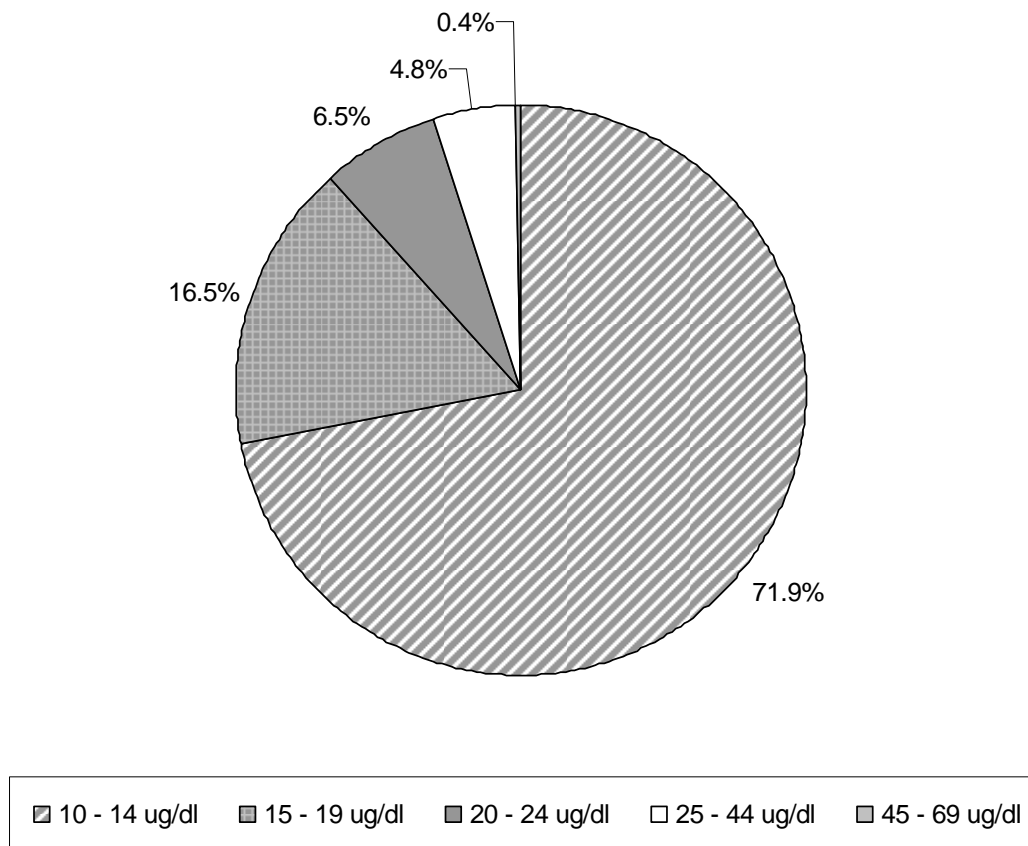
In the upcoming year, CLPPP plans to calculate statewide screening rates for refugee populations, another group considered at higher risk for lead poisoning.



Surveillance Data on Confirmed Cases of Children Under Age 6 in Florida in 2003

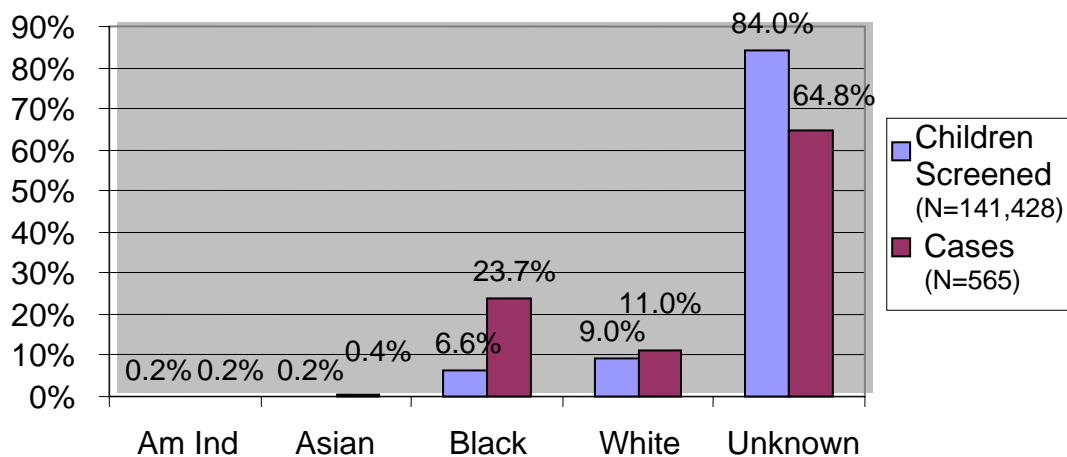
There were 565 newly confirmed cases of childhood lead poisoning in the state of Florida in 2003. Figure 1 presents the total number of confirmed cases by elevated blood lead level (EBLL) category. Of the total cases, 53% were male, 43% were female and 4% were unknown. Five percent of the cases were ages 0 – 11 months, 52% were between 12 – 35 months, and 43% were between 36 to 72 months.

Figure 1. Percent of confirmed cases of childhood lead poisoning in the state of Florida by category of elevated blood lead levels, 2003



The race and ethnicity of children screened is important information for the Program. This information can be captured and reported on from the CLPPP database. Of the cases in 2003 with an identified race documented in their records, 134 or 24% were African American. Of the records for 2003 with the ethnicity identified, 100 or 18% were Hispanic. However, 65% of the cases did not have any race identified and 77% did not have ethnicity identified. This lack of data causes limitations on the Program's ability to estimate the distribution of cases by race and ethnicity in the state of Florida, however the percentage of children less than 72 months of age screened for lead poisoning and cases of lead poisoning by race are illustrated in Graph 1. Completeness of data is a priority for the upcoming year.

Graph 1. Percentage of children <72 months screened for lead poisoning and cases of lead poisoning by race, Florida, 2003



Forty-two percent of the confirmed cases were reportedly receiving Medicaid at the time of the testing. However, 58% of the cases' records did not indicate their Medicaid status. Once again, improving the completeness of the information documented on all cases is a high priority for the upcoming year. The data sharing agreement with Medicaid should help CLPPP and AHCA to more accurately determine the number of Medicaid children receiving blood lead tests.

Table 1 on the following page presents the number of confirmed cases of childhood lead poisoning in the eight counties with the highest number of reported cases. Miami-Dade reported 29% of all confirmed cases in the state in 2003. The percentage of cases detected of the total number of children screened in Miami-Dade County was 0.4% and Broward County was 0.3%.

Table 2 on the following page presents the general incidence rate of lead poisoning based on population estimates from the Florida Legislature's Office of Economic and Demographic Research (EDR). Rates per 10,000 children less than six years of age in the state and in each of the eight high-risk counties are listed.

Table 1. Number of confirmed cases of childhood lead poisoning in high risk counties in Florida, 2003 (N=565)

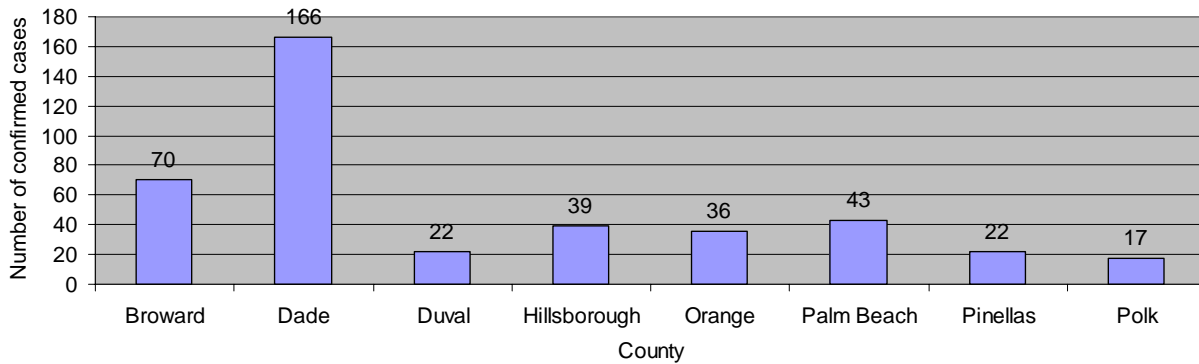


Table 2. Childhood Lead Poisoning Incidence Rates in High Risk Counties

	Incidence Rate per 10,000 children <6
State	4.35
Miami-Dade	8.88
Broward	5.43
Palm Beach	5.24
Hillsborough	4.38
Orange	4.33
Pinellas	3.95
Polk	3.86
Duval	3.01

Table 3. Newly Confirmed Cases of Lead Poisoning in Children Under Age 6 by Blood Lead Level Category and by Florida County

2003	Elevated Blood Lead Levels (EBLLs)					Total
	10 to 14 µg/dL	15 to 19 µg/dL	20 to 24 µg/dL	25 to 44 µg/dL	45 to 69 µg/dL	
County						
ALACHUA	3	1	0	0	0	4
BAKER	2	0	0	0	0	2
BREVARD	1	3	1	0	0	5
BROWARD	58	7	3	2	0	70
CITRUS	2	0	0	0	0	2
CLAY	1	0	0	0	0	1
COLLIER	9	2	3	2	0	16
COLUMBIA	1	1	1	0	1	4
DADE	124	24	11	7	0	166
DUVAL	17	2	1	2	0	22
ESCAMBIA	3	1	3	0	0	7
FLAGLER	1	0	0	0	0	1
GADSDEN	3	1	0	0	0	4
HARDEE	1	2	0	1	0	4
HENDRY	1	1	0	0	0	2
HIGHLANDS	1	2	1	0	0	4
HILLSBOROUGH	26	8	3	1	1	39
HOLMES	0	1	0	0	0	1
INDIAN RIVER	3	1	0	0	0	4
JEFFERSON	1	0	0	0	0	1
LAFAYETTE	1	0	0	0	0	1
LAKE	3	2	0	0	0	5
LEE	4	1	0	0	0	5
LEON	1	2	0	0	0	3
LIBERTY	1	0	0	0	0	1
MADISON	2	0	0	0	0	2
MANATEE	8	3	0	0	0	11
MARION	6	0	0	2	0	8
MARTIN	1	0	0	0	0	1
OKALOOSA	3	1	0	0	0	4
OKEECHOBEE	2	1	0	0	0	3
ORANGE	29	3	1	3	0	36
OSCEOLA	4	1	0	0	0	5
PALM BEACH	31	9	2	1	0	43
PASCO	3	1	0	0	0	4
PINELLAS	15	3	3	1	0	22
POLK	12	2	1	2	0	17
PUTNAM	3	0	0	0	0	3
SAINT JOHNS	1	0	1	0	0	2
SAINT LUCIE	9	3	1	1	0	14
SANTA ROSA	2	0	0	0	0	2
SARASOTA	0	1	0	0	0	1
SEMINOLE	0	2	0	1	0	3
SUMTER	3	0	0	0	0	3
SUWANNEE	0	0	1	0	0	1
UNION	0	1	0	0	0	1
VOLUSIA	4	0	0	1	0	5
Total	406	93	37	27	2	565

Table 4. Number of Children under the age of six years old Screened for Lead Poisoning by Test Type and by Florida County

County	Blood Lead Test Type			Total
	Unknown	Capillary	Venous	
ALACHUA	325	1304	222	1851
BAKER	36	51	50	137
BAY	204	25	139	368
BRADFORD	11	268	11	290
BREVARD	146	504	747	1397
BROWARD	4207	9992	6975	21174
CALHOUN	18	10	31	59
CHARLOTTE	63	118	266	447
CITRUS	70	190	75	335
CLAY	57	408	240	705
COLLIER	60	122	1387	1569
COLUMBIA	47	512	164	723
DADE	12439	5102	19998	37539
DESOTO	6	194	42	242
DIXIE	4	242	5	251
DUVAL	1090	2040	2298	5428
ESCAMBIA	94	309	674	1077
FLAGLER	7	234	100	341
FRANKLIN	6	73	11	90
GADSDEN	89	9	266	364
GILCHRIST	4	183	3	190
GLADES	5	41	12	58
GULF	7	106	1	114
HAMILTON	3	192	14	209
HARDEE	21	112	389	522
HENDRY	143	152	280	575
HERNANDO	37	99	114	250
HIGHLANDS	261	80	116	457
HILLSBOROUGH	4285	1885	4475	10645
HOLMES	27	104	26	157
INDIAN RIVER	16	910	140	1066
JACKSON	5	25	8	38
JEFFERSON	13	2	45	60
LAFAYETTE	2	12	20	34

County	Blood Lead Test Type			Total
	Unknown	Capillary	Venous	
LAKE	145	605	596	1346
LEE	1407	256	1044	2707
LEON	380	70	606	1056
LEVY	118	322	24	464
LIBERTY	4	1	12	17
MADISON	41	13	173	227
MANATEE	223	37	1487	1747
MARION	105	808	1016	1929
MARTIN	179	422	170	771
MONROE	118	10	89	217
NASSAU	11	19	33	63
OKALOOSA	209	143	352	704
OKEECHOBEE	179	42	115	336
ORANGE	898	1493	5628	8019
OSCEOLA	357	221	954	1532
PALM BEACH	2305	3476	3172	8953
PASCO	972	601	801	2374
PINELLAS	552	4159	1915	6626
POLK	1645	1607	1378	4630
PUTNAM	125	87	193	405
SAINT JOHNS	27	434	67	528
SAINT LUCIE	571	509	755	1835
SANTA ROSA	87	6	139	232
SARASOTA	226	635	753	1614
SEMINOLE	215	476	653	1344
SUMTER	24	332	47	403
SUWANNEE	9	158	118	285
TAYLOR	36	29	87	152
UNION	8	42	9	59
VOLUSIA	308	452	970	1730
WAKULLA	21	23	67	111
WALTON	36	19	81	136
WASHINGTON	22	89	3	114
STATE	35371	43206	62851	141428

Florida CLPPP – Future Directions

The CLPPP is poised to increase all efforts to eliminate childhood lead poisoning in the state of Florida. Activities to meet our goal of elimination will involve developing additional partnerships, leveraging funds and establishing policy and legislation to allow improvements in screening, surveillance, primary prevention, and especially lead source identification and reduction. Early identification of lead-poisoned children through blood screening is also crucial to preventing childhood lead poisoning. Specific goals for continued progress are listed below and strategies for reaching those goals will be presented in Florida's Strategic Plan to Eliminate Childhood Lead Poisoning. The plan will highlight activities to increase blood lead screening and provide targeted education. Collaborations between housing professionals, medical providers, and the public will also be highlighted in the plan.



Goals for Continued Progress

- To ensure all children at risk are screened for lead poisoning.
- To ensure the most effective use of statewide surveillance data.
- To provide families, communities, and medical professionals with the knowledge and tools needed to protect children from lead poisoning.
- To develop a lead source surveillance database, coordinate lead source identification activities and target lead hazard remediation efforts to minimize childhood exposure to all lead hazards.
- To establish regulations and policies at the state and local levels to support the creation and maintenance of lead safe housing for families with young children.
- To increase the use of public and private funds for primary prevention activities and lead source identification and remediation efforts.

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This report was supported by Cooperative Agreement number US/CCU422868 from the
Centers for Disease Control and Prevention