

Strategic Plan Lead Education and Awareness Project

September 2008



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WHO WE ARE

The health councils were created in 1983 by Florida Statute to identify, address and resolve health care issues of local concern. Each health council is a private, non-profit organization governed by a Board of Directors. The Board members are appointed by County Commissioners to represent the concerns of health care consumers, providers and purchasers.

The Health Council of West Central Florida, Inc. (HCWCF) serves Hardee, Highlands, Hillsborough, Manatee and Polk counties. The Council has extensive experience working with for-profit and non-profit agencies, public health organizations, consumers and professionals. Collaboration and cooperation are critical to the success of our mission.

We have three strategic goals: (1) influence the accessibility of health care and social support systems through *comprehensive health planning*; (2) provide *education* about essential community health challenges and solutions; and (3) participate as a collaborative partner to address current and emerging health issues to develop and sustain efficient and cost effective *service delivery* systems.

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Introduction

The Health Council of West Central Florida received a grant from the Environmental Protection Agency (EPA) for a project entitled Lead Education and Awareness Project (LEAP) for the purpose of raising community awareness and reducing the incidence of childhood lead poisoning in Hardee, Highlands and Polk Counties.

Florida ranks eighth in the nation for the estimated number of children with elevated blood lead levels. Lead poisoning is a serious threat to a child's behavioral and cognitive development, leaving life long implications.

The service area was chosen for this project based upon the age of the housing stock, rates of elevated blood levels, and immigrant populations present in the counties. Immigrant populations may bring food, candy, pottery and toys from other countries which may contain lead putting children at risk for lead poisoning.

In addition, natural disasters can exacerbate the risk of lead exposure by damaging housing. Repairs and renovations to older homes that do not follow lead safe practices can create a lead hazard where one did not exist before the disaster. The project area was severely impacted by multiple hurricanes in 2004, leading to potentially greater risk of exposure in some homes where no lead hazard existed before the damage.

Furthermore, except for some funds received by Polk County, most rural counties are not targeted by Florida CLPPP (Childhood Lead Poisoning Prevention Program) efforts, and it is hoped that best practices identified in this process may be replicated in other rural areas of Florida.

LEAP chose to develop a long-term Strategic Plan to address lead education and prevention issues and to identify activities that would extend beyond the period of the grant.

A Task Force was formed to help identify issues and areas of focus to be addressed in the Plan. The Health Council will continue to monitor activities related to the plan for two years following completion of the grant activities on September 30, 2008.

A variety of individuals and agencies were invited to participate as Task Force members including all three county health departments, Florida Southern College's Department of Nursing, County Cooperative Extension Offices, Healthy Start, Heartland Rural Health Network, Healthy Families, real estate industry, housing agencies, physicians, local health care foundations, children's advocacy organizations, social service clubs, environmental engineering firms, and other health care alliances. While many expressed an interest in

participating, scheduling problems and other commitments made it impossible for representation from all groups throughout the process. Some offered their assistance with specific portions of the project when unable to commit to the Task Force. A list of Task Force members is included at the end of this document.

I. Overview of the Area

Geographically, the area is in central west Florida. The service area includes highly diverse geographic, demographic, and economic factors.

The major cities in Hardee County are Bowling Green, Wauchula and Zolfo Springs. Highlands County cities include Avon Park, Lake Placid and Sebring. Polk County's major cities include Bartow, Lakeland and Winter Haven.

While the three counties covered by this project are contiguous and may generally be considered rural in nature, recent and sustained growth has affected some of the more urban centers, particularly in Polk County. The information provided below is designed to provide a snapshot of the area, but care should be used due to the variations in the age of the data available and the formulas used in the calculations.

A. Geographic and Economic Indicators

The total service area includes 3,540 square miles with individual county size ranging from 637 square miles to 1,875 square miles. Population densities in the area range from a low of 45 persons per square mile to nearly 300 persons per square mile (see Table 1).

**Table 1
Population Density by County**

County	Square Miles	Total Population 2006	Population Density (persons per square mile)	Rank in State* (out of 67 counties)
Hardee	637	28,621	44.9	51
Highlands	1,028	97,987	95.3	40
Polk	1,875	561,606	299.5	19
Total Area	3540	688,214	194.41	N/A

Source: Central Florida Regional Planning Council, 2008

* Florida Statistical Abstract, 2006

1. Population Characteristics

Table 2 describes age and race characteristics of the general population of each county. Hardee County has the highest percent of individuals less than 18 years of age and Highlands County has the lowest.

Blacks range from a low of 8% in Hardee County to a high of 14% in Polk County. Hispanics, who can be of any race, range from a low of 13% in Polk County to a high of 36% in Hardee County.

Table 2
General Population Characteristics

County	% Under 18 Years Old	% White	% Black	% Hispanic
Hardee	26	52	8	36
Highlands	19	71	9	15
Polk	24	69	14	13

Source: University of Florida, Bureau of Economic and Business Research, 2006

Migration estimates show continuing growth in both Highlands and Polk counties when allowing for both in- and out-migration. Hardee County has a stable population.

2. Poverty and Economic Indicators

Table 3 illustrates economic indicators which show the average cost for single-family homes ranges from \$193,274 (Highlands) to \$208,174 (Polk) and median household income ranges from \$27,762 (Hardee) to \$35,069 (Polk). Please note that the real estate market has changed since 2005, and actual median prices today may be lower.

The percentage of people in poverty ranges from a low of 13.9% in Highlands County to a high of 20.6% in Hardee County. Unemployment figures show less change, but Hardee County does have a higher rate of unemployment than the other counties in the project area.

**Table 3
Economic Indicators by County**

County	Average price of a Single Family Home 2005 in \$	Median Household Income 2003 in \$	Percent of People Below Poverty Level 2003	Unemployment Rate 2005
Hardee	195,221	27,762	20.6	5.3
Highlands	193,274	29,382	13.9	4.0
Polk	208,174	35,069	14.0	4.0

Source: Florida Statistical Abstract, 2006

Note: Federal poverty level in 2003 was equal to \$18,400 for a family of four plus \$3,140 for each extra person in the household.

Agriculture is a major industry in the region as well as phosphate mining. Some of the larger cities have more diverse economies, offering employment opportunities in government, retail, healthcare, utilities, tourism, technical services and small business ownership.

As is the case in most of Florida, public transportation is limited in the project area. Long commutes may be necessary to find work, or to access needed services. The lack of personal transportation can be a major barrier in getting and maintaining employment.

The impact of migrant and seasonal farm workers has a direct influence on the economy of the region. Florida provides work for in-state migrant and seasonal farm workers, and it also attracts out-of-state migrants. An estimate of the impact of migrant workers and their families is provided in Table 4.

**Table 4
Migrant and Seasonal Farm Worker Population Estimates by County**

County	Unaccompanied Migrant and Seasonal Farm Worker (MSFW) Population Estimate	Accompanied MSFW and Household Members
Hardee	2,481	4,163
Highlands	3,579	6,005
Polk	3,910	6,560
Total Project Area	9,970	16,725

Source: "The Need for Farmworker Housing in Florida"; Shimberg Center for Affordable Housing, University of Florida; September 10, 2004

Overall health status is affected by access to health care. Estimates of the percentage of the population that are uninsured or eligible for Medicaid for each county are presented in Table 5.

**Table 5
Estimated Uninsured Residents and Medicaid Eligible by County**

County	% Uninsured	% Medicaid Eligible
Hardee	19.9	23.1
Highlands	15.8	13.1
Polk	19.1	14.8

Source: Florida Agency on Healthcare Administration, 2003

Table 6 describes the number of recipients of public assistance and social security by county. Recipients of Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), and recipients of all types of social security are indicated.

**Table 6
Public Assistance and Social Security Recipients by County**

County	Recipients of Supplemental Security Income		Recipients (# of families) of Aid to Families with Dependent Children		Social Security Recipients-All Types ¹	
	#	%	#	%	#	%
Hardee	844	3	318	1	4,075	14
Highlands	2,098	2	548	1	30,090	31
Polk	14,675	3	3,561	1	115,495	21

Source: Florida Statistical Abstract, 2006

¹ Social Security includes retired and disabled workers, spouses, children and widows/widowers.

II. Overview of Lead Poisoning

Lead is a heavy metal that is abbreviated as Pb on the periodic table. Lead poisoning is caused by ingesting or inhaling substances that contain lead. Lead is generally detected in the blood in children, or in the bones in the case of long-term exposure. There is no safe level of exposure determined by science,

but the Centers for Disease Control and Prevention (CDC) have established a confirmed blood lead level equal to or greater than 10 micrograms per deciliter (µg/dL) as the level at which action should be taken. This does not mean that lower levels of exposure are “safe”, merely the level at which it makes sense from a public health perspective to devote resources to treatment and secondary prevention.

We have known for a long time that lead is poisonous. Lead poisoning was recognized in painters, plumbers and lead production workers in the 1700’s. The first recorded U.S. case of lead poisoning was in 1914 when a child was exposed to the lead from the paint on his crib. While extremely rare, a child in Minneapolis died of lead poisoning in 2006 from ingesting a charm (99% lead) that was a promotional item distributed with a popular athletic shoe.

France, Belgium and Germany banned white-lead paint in 1909. The United States did not begin addressing lead until 1970’s with the passage of the Lead Poisoning Prevention Act followed by the removal of lead from gasoline in 1976, and the removal from paint in 1978.

At the federal level, several agencies have jurisdiction over different aspects of lead, including the Environmental Protection Agency (EPA), the Department of Housing and Urban Development (HUD), Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), and the Occupational Safety and Health Administration (OSHA). Some state and local governments have enacted additional laws, regulations and policies.

Federal Response

Amendments to the Clean Air Act of 1970: National health-based standards for air pollutants were set, including automobile emissions, and required states to submit new air quality plans.

Lead Poisoning Prevention Act of 1972: Provided grants to communities to detect, treat and eliminate lead-based paint poisoning. Prohibited the use of lead-based paint in residential structures constructed or rehabilitated with federal funds.

Safe Drinking Water Act of 1974: Required EPA to determine safe levels of chemicals in drinking water which do or may cause health problems. These non-enforceable levels, based solely on possible health risks and exposure, are called Maximum Contaminant Level Goals. Since lead contamination generally occurs from corrosion of household lead pipes, it cannot be directly detected or removed by the water system. Instead, EPA requires water systems to control the corrosiveness of their water if the level of lead at home taps exceeds an Action Level.

Lead Contamination Control Act of 1988: Authorized CDC to initiate program efforts to eliminate childhood lead poisoning in the U.S. Provided funding to local health departments to screen children for elevated blood levels, provide medical and environmental follow-up and develop neighborhood-based efforts to prevent childhood lead poisoning.

Title X of the 1992 Housing and Community Development Act: The Residential Lead-Based Paint Hazard Reduction Act: Developed a comprehensive federal strategy for reducing lead paint hazard exposure. Provided the authority for the following regulations by amending the Toxic Substances Control Act (TSCA) to include Title IV (Lead Exposure Reduction).

- Lead Renovation, Repair and Painting Program Rule (Standards for Renovation Activities in Homes with Lead-Based Paint (402(c)): Established standards for individuals and firms conducting renovation activities that create lead-based paint hazards in target housing and child-occupied facilities.
- National Lead Laboratory Accreditation Program (405(b)): Established protocols, criteria, and minimum performance standards for laboratory analysis of lead in paint, dust, and soil.
- Hazard Standards for Lead in Paint, Dust, and Soil (403): Established standards for lead-based paint hazards and lead dust cleanup levels in most pre-1978 housing and child-occupied facilities.
- Training & Certification Program for Lead-Based Paint Activities (402/404): Ensured that individuals conducting lead-based paint abatement, risk assessment, or inspection are properly trained and certified, that training programs are accredited, and that these activities are conducted according to reliable, effective and safe work practice standards.
- Pre-Renovation Education Rule (406(b)): Ensured that owners and occupants of most pre-1978 housing are provided information concerning potential hazards of lead-based paint exposure before certain renovations are begun on that housing.
- Disclosure Rule (1018): Required disclosure of known lead-based paint and/or lead-based paint hazards by persons selling or leasing housing constructed before the phase-out of residential lead-based paint use in 1978.
- Lead-Based Paint Debris Disposal: Regulatory Status of Waste Generated by Contractors and Residents from Lead-Based Paint Activities Conducted in Households.

Federal Guidance on Screening and Follow-up Care

- State Medicaid Manual: Part 5-Early and Periodic Screening, Diagnosis and Testing (EPSDT)

- CDC recommendations for Lead Poisoning Prevention in Newly Arrived Refugee Children
- CDC MMWR Report: "Recommendations for Blood Lead Screening of Youth Enrolled in Medicaid: Targeting a Group at High Risk"

State of Florida Response

- Lead poisoning became a notifiable disease in 1992. A case is defined as a venous blood sample result greater than or equal to 10 µg/dL or blood lead levels greater than or equal to 10 µg/dL from two capillary tests taken within three months of one another. Laboratories have a 72-hour time frame in which to report an elevated blood lead level.
- The Florida Childhood Lead Poisoning Prevention Project (CLPPP) was established in 1992. Surveillance, screening, case management, protective policy, primary prevention and community outreach and education are the focus of the program.
- In 2006 the Department of Health began requiring reports of all blood lead levels including those levels less than 10 µg/dL.
- In 2006 the Polk County Health Department received some funding to coordinate case management and promote blood lead screening under the CLPPP.
- In 2008 Florida adopted the "Childhood Lead Poisoning Screening & Case Management Guide".
- Proposed legislation in 2008 to create a Lead Control Program which would take over EPA's Lead Based Paint Training and Certificate Program. Florida would be able to reduce fees charged to individuals and contractors for certification, keep fees collected and be eligible for up to \$300,000 to implement the program. Bill did not pass, but attempts will likely be made to bring it to the next legislative session.

Local Government Response

A review of municipal codes of Hardee, Highland and Polk counties, as well as many of the cities located within the tri-county area, indicated no lead-specific codes. All reviewed codes addressed peeling or chipping paint on structures, but none specifically mentioned the need for lead-safe work practices when addressing failing paint.

A. Sources of Lead

Lead is most commonly found in paint, dust and lead contaminated soil. Lead can also be found in water supplies, particularly private wells, or in homes with older plumbing including lead solder on pipes. Mini-blinds, imported food, toys, pottery, candy, jewelry, cosmetics and home remedies have also been found to contain lead. Some occupations and hobbies can be sources of “take home lead”, such as construction and renovation, battery manufacturing, demolition, painting, working with stained glass, pottery making, and target shooting.

Lead-based paint was banned in 1978 except in certain industrial applications. Homes built before 1978 are more likely to have lead-based paint, and pre-1950 homes have the greatest risk. Some homes built after 1978 may contain lead from paint that was in supply for several years after the ban.

Although lead paint is the most common source of lead poisoning, the most common *pathway* for exposure is lead contaminated dust. Dust is released from paint when windows and doors are opened and closed, and dry dusting and vacuuming can in fact spread dust throughout a house. Dust from “take home exposures” can also be a source so care must be exercised in changing out of clothes used near lead, and washing those clothes apart from other items.

Lead in soil most often exists near roadways, factories and engine repair shops. Leaded gasoline was still in use in some vehicles until the early 1980’s. Lead settled in soil is difficult to remove, and children may come in contact with it when playing outdoors.

In addition, it is estimated that nationwide, up to 35% of cases of children with elevated blood lead levels can be attributed to exposure from items decorated or made with lead.

B. Symptoms and Effects of Lead Poisoning

Children are at the greatest risk of lead poisoning. Hand-to-mouth activities are common and this increases the chance of ingesting lead dust. The developing nervous system in children under six years of age makes this age group more susceptible to the effects of toxins. Lead is not metabolized; it is directly absorbed, distributed and excreted. Once absorbed, lead is distributed in the blood, soft tissue (kidney, liver, brain, and bone marrow) and the bones and teeth. Absorption in the digestive tract is dependent upon the presence of calcium, iron, fat and protein which is why good nutrition is essential in the prevention of lead poisoning.

Pregnant women can also be at risk of the effects of lead poisoning. If a woman was exposed to lead as a child, the lead that did not excrete may still

be stored in her bones. As her body demands more calcium and iron from the bone to support the pregnancy, lead may be excreted at the same time impacting the fetus.

As previously mentioned, lead poisoning is preventable, and there is no safe level of lead exposure. Lead can affect the central nervous system, can interfere with the body's ability to carry oxygen to the cells, and can affect the body's ability to use calcium. Effects can be life long and many symptoms may be attributable to other causes, making diagnosis impossible without a blood lead level test.

Low levels of exposure can lead to:

- Lowered IQ
- Hyperactivity
- Inability to concentrate
- Learning disabilities
- Behavioral problems
- Reduced growth
- Constipation

Moderate exposure:

- Fatigue and pallor
- Anorexia
- Abdominal pain
- Irritability and malaise
- Iron deficiency

Severe levels of exposure can cause:

- Neurological impairments (stumbling)
- Anemia
- Hearing problems
- Seizures
- Headaches
- Coma
- Death

Other effects of lead:

- Delayed puberty in girls
- High blood pressure
- Memory and cognition impairments

- Reproductive problems
- Renal impairment
- Dental caries in children and periodontal bone loss in adults

Blood lead level testing can be done either by a finger stick (capillary test) or drawn from a vein (venous). Capillary tests are easier to do and are less traumatic to a child, but capillary results may need to be confirmed with a venous test or a follow-up capillary test within a specified amount of time.

C. Risk Factors

Risk factors for childhood lead poisoning include:

- Children under six years of age (9 months to 2.5 years has greatest risk)
- Living in housing built before 1978
- Low income
- Poor nutrition
- Refugees, immigrants and children adopted from foreign countries
- An adult in the home who has work or hobby which exposes family to "take home dust"

Table 7
Age of Housing Stock (Single Family Homes)

County	1939 and Earlier	1940's	1950's	1960's	1970's	1980's	1990's
Hardee	773	459	995	1191	2369	2074	1959
Highlands	1063	1125	2619	4984	11286	16017	11752
Polk	9573	7669	20,034	27344	47129	58284	56343
Total	11,409	9,253	23,648	33,519	60,784	76,375	70,054

Source: Florida Housing Data Clearinghouse

Shaded area shows housing stock most likely to contain lead paint

Table 8
Total Number Children under Age Six, Number in Poverty, And Percent in Poverty

County	Children under Age 6	Children under Age 6 in Poverty	% Children in Poverty
Hardee	2,382	778	33
Highlands	5,469	1,606	29
Polk	36,142	7,704	21
Tri-County Total	43,993	10,088	23

Source: U.S. Census, 2000 Poverty Status for Individuals

Table 9
Percent Foreign Born Residents

County	2000 Census	American Community Survey- 2005
Hardee	17.5 %	No data
Highlands	9.1%	10.9%
Polk	6.9%	9.4%

Source: US Census, 2000 and American Community Survey, 2005

Table 10
Percent of Population over 5 years of Age
Who Don't Speak English in 2000

County	Percent
Hardee	5.0
Highlands	1.7
Polk	0.9
Statewide	1.9

Source: Florida CHARTS, 2008

D. Screening Guidelines

Guidelines for the State of Florida indicate that healthcare providers should screen a child at 12 and 24 months of age, and a child of 3 to 6 years of age who has not previously been screened, if the child meets ONE of the following criteria:

- Child living in high-risk area defined by his or her zip code. High risk area is a census block group with 27% pre-1950 or 74% pre-1970 housing. The Florida Department of Health has geographic information maps for high-risk areas with a list of associated zip codes.
- Child having a sibling who has been lead poisoned or resides in a building where a person has been lead poisoned.
- Child who is Medicaid eligible. This is a federal requirement.
- Child who exhibits delayed cognitive development or other symptoms of lead poisoning.
- Child who is from outside of the U.S.
- Child who is in foster care.
- Child who is a refugee or immigrant. Refugee children between the ages of 6 months and 16 years should be screened upon entry to the U.S.
- Child whose parent or caretaker indicated "yes" or "don't know" to at least one of the questions on the Lead Poisoning Risk Assessment Questionnaire. (See Attachment 1)

While all Medicaid eligible children are required to be screened at 12 and 24 months of age, actual rates of screening are hard to determine. Florida is in the process of developing specific reports of screening rates among Medicaid clients, but they were not available at the time of this plan's development. It is recognized that the target for screening all one and two year old Medicaid clients is not being met, and strategies are being developed at the State level to improve compliance with this effort.

For purposes of illustration, the number of Medicaid eligibles and the number of screenings conducted are indicated in Tables 11 and 12; but care should be used in comparing the information as data comes from different years and different sources.

**Table 11
Medicaid Eligible 0 to 5 years
By County as of June 30, 2008**

County	Number Children Age 0-5 with Medicaid
Hardee	1,690
Highlands	3,355
Polk	22,351

Source: State of Florida Agency for Health Care Administration, 2008

Screening rates have varied throughout the tri-county area between 2002 and 2006. While Polk County has, overall, had a steady growth in screening, Hardee and Highlands County have had more erratic patterns of screening. Please note that these figures include all screenings, including those done by private physicians, not just Medicaid or Health Department related cases.

**Table 12
Reported Screenings by County, 2002-2006**

County	2002	2003	2004	2005	2006
Hardee	523	510	558	496	234
Highlands	519	442	384	392	572
Polk	4,253	4,555	4,537	5,231	6,853

Source: Florida Department of Health Childhood Lead Poisoning Prevention Program; 2006 Annual Surveillance Report; April, 11, 2008

In addition, children not enrolled in Medicaid may not get screening due to the lack of a health care provider. Health resources are limited in Hardee and Highlands County in particular. Table 13 provides an overview of family practice physicians and pediatricians in the target area based on licensure data.

Table 13
Number of Family Practice Physicians and Pediatricians

County	Family Practice	Pediatricians
Hardee	2	3
Highlands	14	9
Polk	64	55

Source: Florida Charts, 2008

E. Elevated Blood Lead Levels in the Project Area

Lead poisoning is reportable disease under Chapter 64D-3 of the Florida Administrative Code. A confirmed case is defined as an individual with a blood level greater than or equal to 10 µg/dL from a venous specimen, or a blood level greater than or equal to 10 µg/dL from two capillary specimens taken within three months on one another.

While the actual number of cases may appear small, there are great fluctuations in Hardee and Highlands County cases and rates in all three counties per 100,000 population are on average higher than the State rate.

Table 14
Cases of Lead Poisoning in Children < 6

County	2003		2004		2005		2006	
	#	Rate	#	Rate	#	Rate	#	Rate
Hardee	5	194.1	3	116.9	0	0.0	2	77.6
Highlands	1	18.8	7	126.3	3	52.6	4	67.5
Polk	24	59.9	19	45.6	14	32.3	9	19.9
Florida	549	44.6	462	36.4	339	26.1	258	19.5

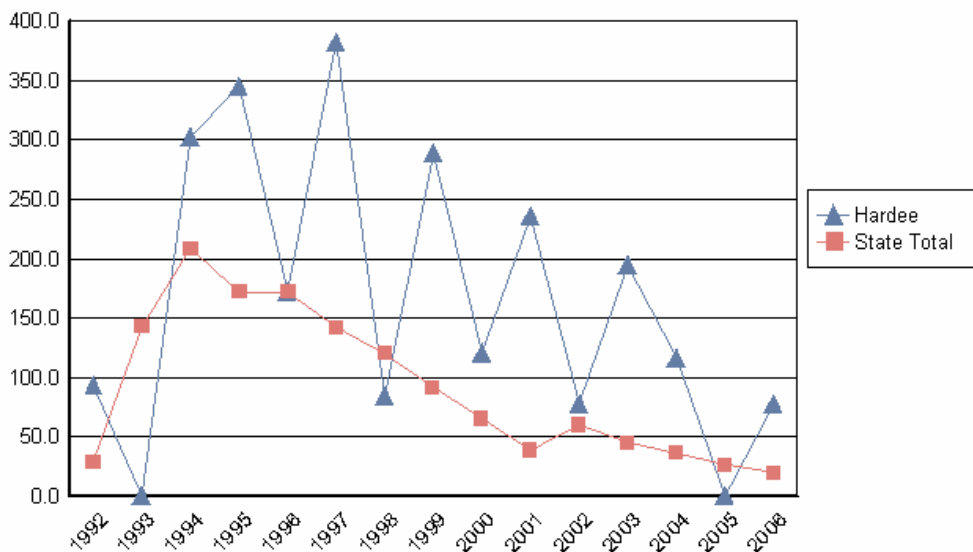
Source: Florida Charts, 2008

Table 15
Cases of Lead Poisoning - All Ages

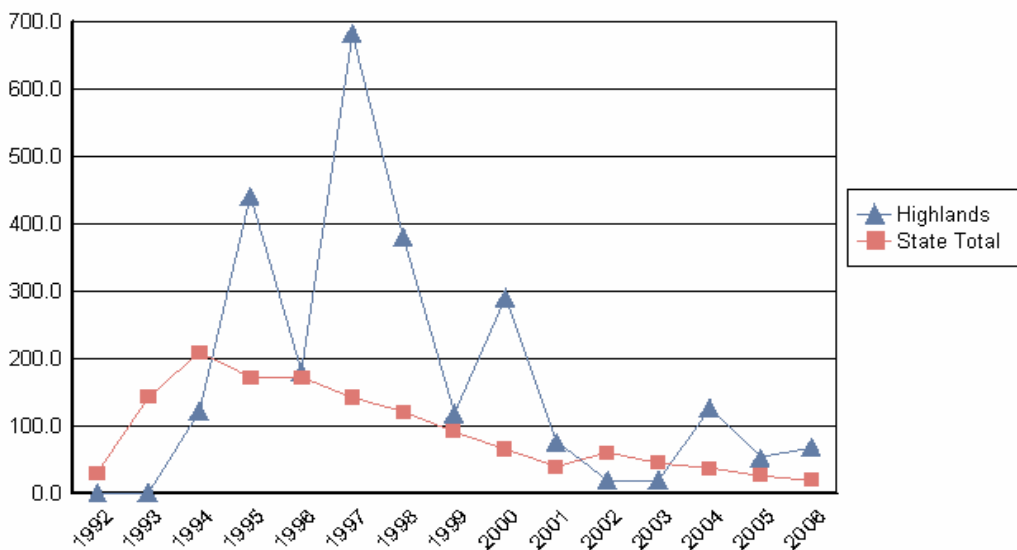
County	2003		2004		2005		2006	
	#	Rate	#	Rate	#	Rate	#	Rate
Hardee	5	18.2	3	10.0	0	0.0	2	7.3
Highlands	4	4.4	9	9.7	5	5.3	4	4.1
Polk	29	5.6	22	4.1	15	2.8	9	1.6
Florida	813	4.7	642	3.6	495	2.7	373	2.0

Source: Florida Charts, 2008

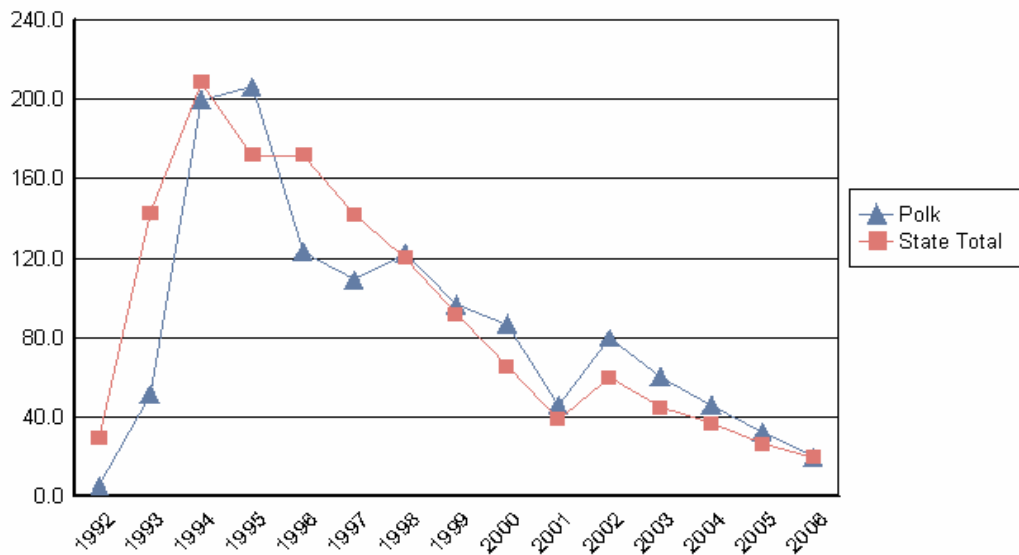
Graph 1: Hardee County Lead Poisoning < 6
Single-Year Rates per 100,000 Population



Graph 2: Highlands County Lead Poisoning < 6
Single-Year Rates per 100,000 Population



**Graph 3: Polk County Lead Poisoning < 6
Single-Year Rates per 100,000 Population**



F. Environmental Testing and Treatment

The treatment of lead poisoning includes behavioral, medical and environmental interventions. Actual treatment protocols depend on the level of exposure as described in Table 16.

**Table 16
Blood Lead Levels and Recommended Actions**

Child's blood lead level:	It means that:	What you can do:
is below 10 mcg/dL	Your child's blood lead level is not high at this time. Your child will need another lead test in a year.	Have your child tested every year. Keep your child away from lead in your home. Give your child healthy foods (calcium and iron).
is between 10 and 14 mcg/dL	Your child's blood lead level is high. Your child will need another blood test in a few months. You will get a phone call and a letter in the mail	Ask your doctor when your child should have his or her next blood test and make sure you bring the child back for the follow-up test Protect your child from lead in your home.

Child's blood lead level:	It means that:	What you can do:
	<p>gathering information on your child's behavior, eating habits and the places your child lives or visits.</p> <p>You will be given information about lead and how to reduce your child's risk of more exposure.</p> <p>You may be provided with referrals to help your child including assessments for developmental delays.</p> <p>All children under the age of 6 living in the home should also be tested.</p>	<p>Give your child healthy foods. Children under 5 years old with high blood lead levels may be able to receive free healthy foods through the WIC program. Call the Health Department to find out more.</p>
<p>VENOUS blood lead level is between 15 and 19 mcg/dL for the first time</p>	<p>Your child's blood lead level is very high.</p> <p>Your child will need another blood test in two months.</p> <p>A lead inspector will visit all the places your child spends time (home, family member's homes, day care) to determine where the lead is.</p>	<p>A lead investigator can help you learn how to protect your child from lead.</p> <p>Give your child healthy foods. Children under 5 years old with high blood lead levels may be able to receive free healthy foods through the WIC program. Call the Health Department to find out more.</p>
<p>VENOUS blood lead level is 15 mcg/dL or higher twice, 90 days apart but within a year; or your child's venous blood lead level is between 20 and 44 mcg/dL</p>	<p>Your child is dangerously lead poisoned.</p> <p>Your child may need treatment to bring down the level of lead in his or her blood, which will begin with a full check up from your doctor or from a lead clinic.</p> <p>A lead inspector will visit all the places your child</p>	<p>Protect your child from lead in your home.</p> <p>Give your child healthy foods. Children under 5 years old with high blood lead levels may be able to receive free healthy foods through the WIC program.</p> <p>Give child any medicine or vitamins recommended by your doctor.</p>

Child's blood lead level:	It means that:	What you can do:
	<p>spends time (home, family member's homes, day care) to determine where the lead is.</p> <p>You and your doctor will then decide which treatment is best for your child. It may include medicine or iron and vitamin supplements to reduce the level of lead in your child's blood.</p>	
Over 45 mcg/dL	Your child may have to go to the hospital for more tests and treatment.	Follow doctor's recommendations.

If an environmental assessment is required (which may occur with a second elevated blood lead level over 10 µg/dl), a lead inspector will visit all the locations a child frequents including their home, day care or school, caregiver or relative's home. Several options for sampling the environment are available. Both paint and soil may be tested as well as household items and toys.

Sampling techniques include paint scrapings, soil sampling, dust wipe testing, chemical testing, and X-ray Fluorescent analyzers (XRF).

Paint scrapings and dust wipes require training in order to have valid results. In paint scrapings specific dimensions of suspect paint must be removed and all layers of paint must be sampled. This is time consuming and can damage the surface being tested. Dust wipe testing also requires specific procedures to assure that the sample is collected appropriately, but generally does not disturb the surface. Samples must be mailed to a certified lab for analysis, taking several days to get results.

Chemical test kits are available at paint and hardware stores. The EPA does not recommend the use of these kits at this time due to wide variations in accuracy of the tests. In March 2008, EPA described criteria for lead test kits to meet (5% false negative rate and 10% false positive rates). Manufacturers have been invited to send commercially available kits for evaluation which will result in performance information that consumers can use in determining effectiveness of various kits, making this a more viable choice for lead assessment in the future.

An XRF analyzer gives immediate results without disturbing the surface. The XRF does require some training for the use, calibration and maintenance of the

machine and can be expensive to purchase. At this time there are no XRF machines available to Health Departments in the tri-county area. In addition the Polk County Health Department is the only health department in the tri-county area with a lead inspector. Additional staff trained in lead inspection and risk assessment within the public health sector would improve the ability to respond to cases of children with elevated blood lead levels.

If the source of lead exposure is detected, efforts need to be made to reduce the risk of continued exposure. Depending upon circumstances, this can include removing the child from the lead source; total removal of the lead source (abatement), interim measures to reduce the impact of exposure including wet cleaning practices; sealing off areas where lead is present; and encapsulating lead paint (this requires a specially formulated product known as an encapsulant).

Abatement is the most complete and costly level of lead removal, and is used when the primary purpose of the work being performed is the removal of lead hazards.

The cost of lead remediation or abatement can be high depending upon the amount of work required. There are few resources available to assist homeowners with lead removal in the tri-county area. Some other municipalities have funds available through low interest loans or grants to low income households wishing to remove lead, but this is not readily available in the tri-county area.

In addition, some health savings accounts allow funds to be used for the removal of lead if a child has an elevated blood lead level, but this is not an choice for many people.

Lead safe work practices can be used when the goal of the work is for something other than the removal of lead, such as weatherization, remodeling or energy efficiency improvements. Renovators, including individual homeowners should get training on the use of lead safe work practices to minimize the chance of spreading lead dust.

EPA issued a rule requiring the use of lead safe work practices and other actions aimed at preventing lead poisoning. Beginning in April 2010, contractors performing renovation, repair and painting projects that disturb lead-based paint in homes, child care facilities and schools built before 1978 must be certified and must follow lead-safe work practices.

A list of EPA-certified Inspection, Risk Assessment, Remediation, and Abatement contractors serving the tri-county area appears in Table 17. Please note that there is no list of contractors or individuals trained in lead-safe work practices at this time, and consumers should request documentation of training

from contractors hired to perform work on older properties, or get training for work they do themselves.

Table 17
EPA Certified Lead Based Paint Inspector, Risk Assessor, Remediation and Abatement Firms Serving the Tri-County Area (as of 5/21/07)

Business Name	Services	City	Phone
Aerostar Environmental Services, Inc.	Inspection, Risk Assessment, Remediation, Abatement	Jacksonville, FL	904-565-2820
Asbestos Certified Technicians, Inc.	Remediation, Abatement	Land O' Lakes, FL	813-996-3350
Associated Consulting Professionals, Inc.	Inspection, Risk Assessment, Remediation, Abatement	Oldsmar, FL	727-773-9200
Cooper and Associates	Remediation, Abatement	St. Petersburg, FL	727-327-3822
Cross Construction Services, inc.	Remediation, Abatement	Lutz, FL	813-907-1013
Cross Environmental Services, Inc.	Remediation, Abatement	Crystal Springs, FL	813-783-1688
Darcco Environmental, Inc.	Remediation, Abatement	Jacksonville, FL	904-398-6200
Decon Environmental & Engineering, Inc	Remediation, Abatement	Ft. Lauderdale, FL	954-485-8800
Evans Environmental and Geological Sciences & Management	Inspection, Risk Assessment	Miami Lakes, FL	305-374-8300
J.J. Sosa & Assoc.	Inspection, Risk Assessment, Remediation, Abatement	Tampa, FL	813-626-8156
Jeffery W. Harris	Inspection, Risk Assessment	Mascotte, FL	352-429-8122
OHC Environmental Engineering	Inspection, Risk Assessment	Tampa, FL	813-626-8156
PB03 Environmental Testing and Services	Inspection, Risk Assessment	DeBary, FL	386-668-4545
Professional Service Industries, Inc.	Inspection	Pensacola, FL	850-434-1000
Tierra Consulting Group, Inc.	Inspection, Risk Assessment	Pompano Beach, FL	954-941-9837
Universal Engineering Sciences	Inspection, Risk Assessment	Jacksonville, FL	904-296-0757

Business Name	Services	City	Phone
American Management Resources Corporation	Inspection, Risk Assessment	Ft. Myers, FL	239-936-8266
Mihir Environics	Inspection, Risk Assessment	Tallahassee, FL	850-422-1255
Adviron Environmental Systems	Inspection, Risk Assessment, Remediation, Abatement	Hollywood, FL	954-961-0034
Jeffrey Thomas Murphy Builders, Inc.	Remediation, Abatement	Lake Worth, FL	561-963-7386
Neighborhood Housing & Development Corporation	Inspection, Risk Assessment, Remediation, Abatement	Gainesville, FL	352-380-9119

Note: The Health Council of West Central Florida does not recommend use of specific businesses on this table. Please contact the United States Environmental Protection Agency at (404) 562-8998 to report unethical business practices of businesses listed above. For updates to this list call 1-800-241-1754.

III. Strategic Plan Matrix

The Task Force identified problems, focus areas, actions and responsible parties to address lead awareness and education in the tri-county area. Table 18 identifies items completed during the course of the grant period and work that will continue past the expiration of the grant. The Health Council will monitor activities related to this project for two years and will offer technical assistance to community partners.

**Table 18
Strategic Plan Matrix**

Problem Area	Focus	Action	Responsible Parties	Status
A. Blood lead level testing of at-risk children below acceptable levels	1. Educate physicians and other health care providers	a. Develop Physician Tool Kit and distribute to family practice doctors, pediatricians and community-based care sites.	Health Council of West Central Florida (HCWCF)	Completed
		b. Schedule presentations at medical society and association meetings on the importance of lead testing and Medicaid requirements.	Trainers who completed Train the Trainer	Ongoing
		c. Train parish nurses to their raise awareness.	HCWCF, Trainers	Completed
		d. Train Florida Southern College's School of Nursing students.	HCWCF, Florida Southern College students	Completed

Problem Area	Focus	Action	Responsible Parties	Status
		e. Develop community projects for BSN and MS level nursing students around lead poisoning education.	Florida Southern College students	Ongoing
	2. Educate parents to ask for blood lead level tests when child is one and two years of age	a. Develop and conduct Train the Trainer sessions in the tri-county area to provide a core group of individuals who can assist in educating the community.	HCWCF	Three sessions completed
	3. Additional resources for testing uninsured and undocumented children	a. Provide State with information as requested and assist in education of community as needed.	HCWCF	Ongoing
		b. Seek funding sources for additional funds to promote and conduct lead screenings.	Health Departments, State of Florida, HCWCF	
B. Need for increased prevention	1. Educate parents about need for good nutrition and cleaning practices	a. Encourage WIC offices to give out information about the importance of nutrition in preventing lead poisoning.	WIC staff, Health Departments	
		b. Encourage teen and other pregnancy programs to focus on nutrition and wet cleaning as a means of prevention.	Health Departments, Healthy Start, churches, social service agencies	

Problem Area	Focus	Action	Responsible Parties	Status
	2. Reduce lead hazards using home-based strategies	a. Train public health, child and family serving staff in visual inspection techniques, cleaning methods, signs and symptoms of lead poisoning.	Healthy Start, Health Departments, child protective agencies	
C. Need for more effective means of testing for lead, particularly in toys and household items	1. Lack of an XRF machine in the area	a. Seek funding source to purchase at least one XRF for County Health Department use and training for staff. b. Encourage code enforcement personnel to become certified in lead sampling techniques.	HCWCF Local officials, supervisors	In process
D. Need for more awareness of lead safe work practices	1. Offer lead safe work practices training 2. Support efforts by the State of Florida to pass legislation to create a Lead Control Program including certified training program 3. Code enforcement and weatherization agencies	a. Conduct two trainings. a. Educate community and members of the legislature about the proposal. a. Invite staff to trainings.	HCWCF/Contractor Legislative Committee of the Health Councils, Inc., community members HCWCF	Completed In process Completed

Problem Area	Focus	Action	Responsible Parties	Status
	4. Homeowners	a. Educate home owners about lead safe work practices for work they do themselves as well as asking for lead safe practices and proof of certification from contractors hired.	Local homebuyer assistance programs, building permitting departments	
E. Lack of resources to assist with lead remediation or abatement	1. Develop funding	a. Investigate the use of community reinvestment act for lead safety loans. b. Investigate the development of housing trust funds for the renovation of older properties for low income families. c. Develop partnerships with certified abatement and lead-safe work practices contractors for occasional low- or no-cost assistance for low-income families.	Local housing agencies, community development offices Local housing agencies, community development offices Local housing agencies, churches, social service providers	
F. Cultural practices and language barriers	1. Agencies serving immigrant populations	a. Train staff and volunteers. b. Provide lead education materials for low literacy and Spanish speaking populations	HCWCF, Trainers HCWCF	In process In Trainer resource packets

Attachment 1
Lead Poisoning Risk Assessment Questionnaire

A “yes”: or “don’t know” response to any question indicates the child is at risk for lead poisoning and should receive a blood lead test and appropriate follow-up.

Question	Yes, No, or Don't Know
1. Does your child live or regularly visit (once a week or more) any house or building built before 1978?	
2. Does your child live in or regularly visit any house or building that has recently undergone renovation?	
3. Does your child frequently come into contact with an adult whose job or hobby involves lead? <u>Examples:</u> <i>Occupations:</i> building renovation; battery factory or recycling; auto or radiator repair; highway bridge sandblasting or painting; welding metal structures; or wire cable cutting. <i>Hobbies:</i> refinishing furniture; home renovation; casting bullets; auto battery or radiator repair; making stained glass; ceramics; toy soldiers; dive weights or fishing weights	
4. Does your child have contact with cosmetics, kohl, candies, spices, jewelry, ceramic dishware and/or home (or folk) remedies not made in the United States; and/or leaded crystal, imported ceramics or pewter dishes?	
5. Does your child play in loose soil, near a busy road or near any industrial sites such as a battery recycling plant, junk yard or lead smelter?	
6. Have you seen you child eat dirt or put his/her mouth on painted surfaces, paint chips, toys, jewelry or vinyl mini-blinds?	
7. Has your child recently visited or lived in another country for an extended period of time?	

Source: Florida Department of Health “Childhood Lead Poisoning Screening and Case Management Guide”; January, 2008.

Glossary

Abatement or abatement project means any measure or set of measures designed to permanently eliminate lead-based paint hazards.

Clearance examination means an activity conducted following lead-based paint hazard reduction activities to determine that the hazard reduction activities are complete and that no soil-lead hazards or surface dust-lead hazards exist in the dwelling unit or worksite. The clearance process includes a visual assessment and collection and analysis of environmental samples.

Clearance levels mean the maximum allowable concentrations of lead on environmental surfaces. For post-abatement clearance the maximum level of lead in dust on horizontal surfaces are as follows: floors 100 micrograms per square foot, window sills 500 micrograms per square foot using dust wipe sampling methodology.

Encapsulant means a substance that forms a barrier between lead-based paint and the environment using a liquid-applied coating, with or without reinforcement materials, or an adhesively bonded covering material.

Encapsulation means the application of an encapsulant.

Inspection means a surface-by-surface investigation to determine the presence of lead-based paint and the provision of a report explaining the results of the investigation.

Interim controls means a set of measures designed to temporarily reduce human exposure or likely exposure to lead-based paint hazards, including specialized cleaning, repairs, maintenance, painting, temporary containment, ongoing monitoring of lead-based paint hazards or potential hazards, and the establishment and operation of management and resident education programs.

Lead-based paint hazard means any condition that causes exposure to lead from lead-contaminated dust, lead-contaminated soil, or lead-contaminated paint that is deteriorated paint or is present in accessible surfaces, friction surfaces, or impact surfaces that would result in adverse human health effects as identified by the Director.

Lead-contaminated dust means surface dust in a residential dwelling or child-occupied facility that contains an area or mass concentration of lead at or in excess of 100 micrograms per square foot.

Lead-contaminated soil means bare soil on residential real property or on the property of a child-occupied facility that contains lead at or in excess of 400 parts per million (400 milligrams per kilogram).

Risk assessment means an onsite investigation to determine the existence, nature, severity, and location of lead-based paint hazards and the provision of a report by the individual or the firm conducting the risk assessment, explaining the results of the investigation and options for reducing lead-based paint hazards.

Visual assessment means looking for, as applicable: deteriorated paint, visible surface dust, debris and residue as part of a clearance examination.

Visual lead-hazard screen means a visual assessment to determine the presence of deteriorated paint or other potential sources of lead-based paint hazards in a residential dwelling or child-occupied facility. Visual lead-hazard screen includes a written report explaining the results and limitations of the assessment. The written report will be provided to the person requesting the inspection, the residents of the dwelling, and the owner of the dwelling or child-occupied facility. A certified visual lead-hazard advisor shall retain a copy of the report in his or her files for three years.

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