

San Antonio Strategic Plan to Eliminate  
Childhood Lead Poisoning  
By 2010

## Executive Summary

Childhood lead poisoning continues to be a significant – and preventable – environmental health problem for the children of San Antonio. Despite considerable progress toward the goal of eliminating elevated blood lead levels (EBLLs), children continue to suffer the consequences of exposure to this toxic metal.

The San Antonio Childhood Lead Poisoning Prevention Program (SA CLPPP) is committed to eliminating childhood lead poisoning in San Antonio. A result of this commitment is the *San Antonio Strategic Plan to Eliminate Child Lead Poisoning by 2010*. This strategic plan was developed with input from members of the San Antonio Lead Coalition-Lead Safe San Antonio. Committee members worked together to draft the goals, objectives and activities that form the core of a three-year plan. It is anticipated that as SA CLPPP and the committee members continue efforts in the years to come, the strategic plan will be reevaluated, amended and expanded to meet changing circumstances in San Antonio.

This strategic plan describes the scope of the problem, outlines the strategies for prevention and elimination, and sets the course for an increase in the availability of healthy homes for San Antonio families with young children.

Thank you to all who helped in the development of this plan and are working toward the elimination of child lead poisoning in San Antonio. The SA CLPPP is grateful to these members for their ideas, commitment, enthusiasm, patience and passion in developing this strategic plan. We look forward to continuing this work to achieve our mutual goals.

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## Mission Statement

The mission of Metro Health's San Antonio Lead Poisoning Prevention Program is to eliminate childhood lead poisoning as a public health problem in San Antonio by 2010, working together with health, housing, universities, and environmental organizations.

SA CLPPP is working toward the elimination of childhood lead poisoning in San Antonio through outreach, education, surveillance and environmental action.

The *San Antonio Strategic Plan to Eliminate Child Lead Poisoning by 2010* supports the mission of Metro Health to promote optimal health for all residents of San Antonio and its vision that all San Antonions live in safe and healthy communities.

This plan also supports Healthy People 2010, a statement of national health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats over the first decade of the new century. The goals of Healthy People 2010 are to increase quality and years of healthy life and to eliminate health disparities.

# Childhood Lead Poisoning

Lead poisoning can damage nearly every system in the body. Because it often occurs with no obvious symptoms, lead poisoning frequently goes unrecognized. It can cause irreversible learning disabilities, behavioral problems, and at very high levels, seizures, multiple organ failure, coma, and even death.

## Lead Exposure

The major source of lead exposure among children in the U.S. is lead-based paint and lead-contaminated dust found in deteriorating housing. Lead content was phased out of house paint beginning in the 1950s and banned in 1978. However, 249,487 (62%) pre-1978 housing units were counted in San Antonio in the 2000 census, and almost 42% of these were renter occupied.

In addition to lead paint, known sources of lead poisoning include (but are not limited to):

- Hobbies (making stained-glass windows, handling fishing weights, reloading ammunition)
- Home remodeling of pre-1978 homes
- Occupations (recycling, battery manufacturing, radiator repair)
- Drinking water (lead pipes, solder, brass fixtures, and valves can all leach lead into water)
- Home remedies (Azarcón and Greta, which are used for upset stomach or indigestion; pay-loo-ah, which is used for rash or fever).
- Lead glazes on pottery
- Mexican candy

Table 1 (below) indicates the varied sources of lead exposure discovered in environmental investigations/nursing case management visits done in 2006 for children in San Antonio with elevated blood lead levels. Some children are exposed to more than one source.

**Table 1**

### Sources of Lead Exposure for Children with Elevated Blood Lead Levels in 2006

Sources of Exposure	Number of Children
Paint	41
Pica (ingestion of non-food items)	20
Soil	17
Occupational	11
Mexican Candy	9
Pottery	6
Remodeling	4
Folk Medicine	3
Other	4

### **Preventing Lead Poisoning**

Lead poisoning is entirely preventable. The keys to prevention are keeping children from coming into contact with lead and providing educational outreach.

- Lead hazards in a child's environment must be removed.
- The general public and healthcare professionals must be educated about lead poisoning and how to prevent it.
- Children who are at risk for lead poisoning must be tested, monitored and, if necessary, treated.

### **Children at Greatest Risk**

- Children under the age of 6 years old are at higher risk because their digestive systems absorb a far greater percentage (as much as 50%) of any ingested lead than adults do (10-15%), and because they tend to put their hands or other objects into their mouths.
- Children from all social and economic levels can be affected by lead poisoning, although children living at or below the poverty line and who live in older housing are at greatest risk.
- Children of some racial and ethnic groups living in older housing are disproportionately affected by lead.

### **Elevated Blood Lead Level (EBLL) Defined**

Texas adheres to the CDC definition for an "elevated" blood lead level (EBLL): a level at or above 10 micrograms per deciliter ( $\mu\text{g}/\text{dL}$ ) of whole blood. This should not be considered a "safe" level below which no harm is likely to occur, as there is no known "safe" threshold. Rather this is the level at which interventions are triggered, and resources are allocated.

### **Venous vs. Capillary Testing**

Blood is collected for lead testing via either a capillary site (finger stick) or a venous site (a vein). Healthcare providers must be aware of a crucial difference between these two collection techniques: Lead contamination may be present on a child's hands, subjecting the capillary specimen to a false elevated result. An alcohol wipe alone will not remove lead contamination on the skin; a soap and water wash is necessary. Medicaid requires that a child's first lead test be sent to the Department of State Health Services (DSHS) lab for analysis. Initiation of environmental investigation activities requires a "confirmed" elevated blood lead level. Any venous test is considered a confirmed result. However, a capillary test must be "confirmed" by a venous test. Capillary testing can delay interventions.

# San Antonio Statistics

## Texas Screening Plan

In 2001, the TX CLPPP, with the assistance of a Screening Advisory Group, developed a blood lead screening plan for Texas children. That plan recommends that *all* Texas children be tested for lead poisoning at age 12 months and again at age 24 months. This schedule is **required** for children enrolled in Texas Health Steps (Texas Medicaid for needy children).

## EBLLs in San Antonio

Table 2 (below) shows the percentage of children with elevated blood lead levels (at or above 10µg/dL) among all children tested in San Antonio from 2000 to 2006.

**Table 2**

**Tested and Elevated Children in San Antonio Under 72 months of Age  
For 2000-2006**

<b>Year</b>	<b>Tested</b>	<b>Elevated</b>	<b>% Elevated</b>
2000	606	156	26%
2001	14,304	499	3%
2002	15,480	386	2%
2003	16,715	343	2%
2004	19,415	259	1%
2005	20,387	241	1%
2006	11,609	188	2%

## Housing Stock

Because of the use of lead in house paint until 1978, the age of housing stock in a community is an important factor in determining lead exposure risks. Houses built before 1950 may have paint with the highest lead content. After 1950, the amount of lead was progressively reduced until 1978, when all lead was prohibited as an additive in residential paints.

Table 3 (next page) shows the number of units in San Antonio and the year they were built. Also reflected is whether they are rental units.

**Table 3**

**Number, Age, and Occupants of Housing Units in San Antonio**

<b>Year Built</b>	<b>Number</b>	<b>% of Total</b>	<b>Owner</b>	<b>Renter</b>
Pre-1940	26,518	6.54	16,916	9,062
1940-1949	27,975	6.90	18,524	9,451
1950-1959	53,618	13.22	37,212	16,406
1960-1969	60,161	14.83	36,098	24,063
1970-1977	81,215	20.01	40,723	40,492
1979 or newer	156,057	38.50	86,111	69,946
<b>Total</b>	<b>405,544</b>	<b>100.00</b>	<b>235,584</b>	<b>169,420</b>

Source: 2000 Census

**Ways the Public and Parents Can Help Prevent Lead Poisoning**

- Ask a doctor to test your child for lead at 12 and at 24 months or at any time you are concerned that your child may have been exposed to lead.
- Damp-mop floors, damp-wipe surfaces, and frequently wash children’s hands, pacifiers, and toys to reduce exposure to lead contaminated dust or paint chips.
- Avoid bare soil.
- Avoid using home remedies (such as Azarcón, Greta, pay-loo-ah) and cosmetics (such as kohl, alkohol) that may contain lead.
- Take basic steps to decrease your own exposure to lead. For example, if you remodel buildings built before 1978 or if you work or have hobbies that involve working with lead-based products.
- Keep children away from any remodeling projects, especially in older homes.
- Use only pottery stamped “lead-free” for storage and serving of food or juice.

## Primary Prevention Goals

Primary prevention protects children from being exposed to lead. Activities include providing education and increasing the supply of lead-safe housing.

### **Goal 1: Prevent lead poisoning by raising awareness of childhood lead poisoning in San Antonio.**

#### **Long Term Objective:**

Decrease the number of children being exposed to lead hazards from 2007-2010.

#### **Short Term Objective 1.1:**

Increase educational programs on lead poisoning prevention conducted in 2007.

#### **Activities:**

- Develop and conduct family and community education that supports primary prevention activities in places such as churches, teenage parenting programs, daycares, and Head Start programs.
- Develop and conduct professional training activities among primary care providers to increase lead poisoning prevention awareness.

#### **Position(s) Responsible:**

Health Program Specialist

#### **Evaluation Measure:**

The number of community and professional programs conducted.

#### **Short Term Objective 1.2:**

Inform stakeholders and local leaders about lead issues identified by surveillance data.

#### **Activities:**

- Publish and disseminate annual report.
- Conduct quarterly Lead Safe Coalition meetings.

#### **Position(s) Responsible:**

Program Manager

#### **Evaluation Measure:**

The number of annual reports printed and distributed. The number of meetings held.

### **Goal 2: Assure adequate number of lead-safe housing units will be available for families with young children.**

#### **Long Term Objective:**

Increase the number of lead safe housing units in 2007 – 2010.

**Short Term Objective 2.1:**

All people receiving a permit for renovation work will receive a Lead Paint Safety Booklet.

**Activities:**

- Collaborate with the Development Services Department to distribute Lead Paint Safety Booklets and surveys to determine the effectiveness of the booklets.
- Pursue the possibility of offering lead clearance certificates to those adhering to lead safe work practices.

**Position(s) Responsible:**

Program Manager, Health Program Specialist, Lead Coalition

**Evaluation Measures:**

Number of booklets distributed. Number of surveys returned. Number of positive answers on surveys. Number of contacts made to determine feasibility of free clearance tests.

**Short Term Objective 2.2:**

Collaborate with home improvement retailers and other agencies in promoting lead safe work practices awareness.

**Activities:**

- Identify and collaborate with agencies for the distribution of information resources on lead-safe work practices.
- Develop information resources to educate families, building owners and housing rehabilitation workers on lead safe-work practices.

**Position(s) Responsible:**

Program Manager, Health Program Specialist, Lead Coalition

**Evaluation Measures:**

Number of information resources developed, the number distributed and the number of collaborations created.

**Short Term Objective 2.3:**

Determine what is needed to establish regulations regarding the elimination or control of lead hazards in housing units occupied by a child with an elevated blood lead level.

**Activities:**

Lead Coalition to discuss at meetings.

**Position(s) Responsible:**

Lead Coalition

**Evaluation Measures:**

The number of meetings held to develop regulations and implementation of regulations.

## SECONDARY PREVENTION GOALS

Secondary prevention reduces the harmful effects of elevated BLLs after an exposure has occurred. Activities include screening for BLLs, and offering follow up care.

### **Goal 3: Assure at-risk children are screened in San Antonio.**

#### **Long Term Objective:**

Increase the number of at-risk children screened.

#### **Short Term Objective 4.1:**

Identify and target screening for high-risk populations.

#### **Activities:**

- Identify communities at high risk for lead poisoning.
- Screen children <6 years of age with the Lead Care II analyzer.
- For those children with elevated levels, do venipuncture to confirm.

#### **Position(s) Responsible:**

SA CLPPP

#### **Evaluation Measure:**

The communities are identified. Number of previously untested children with elevated lead levels.

### **Goal 4: Assure appropriate and timely case management services for children with elevated blood lead levels in San Antonio.**

#### **Long Term Objective:**

Increase percentage of children with EBLLs receiving appropriate and timely case management services annually between 2007 and 2010.

#### **Short Term Objective 5.1:**

Improve timely and appropriate case management services.

#### **Activities:**

- Hire a full time nursing case manager.
- Establish percentage of cases with timely case management.
- Gather and enter electronic case management and environmental data.

#### **Position(s) Responsible:**

Program Manager, Nursing Case Manager, Administrative Assistant

#### **Evaluation Measure:**

A full time nursing case manager is hired. Percentage of cases with timely case management. Number of cases entered into electronic database.

## SURVEILLANCE GOAL

Surveillance provides information that forms the basis for planning, evaluation, and public support of policies and programs. Activities include developing systems to monitor childhood BLLs, sources of exposure, reduction of lead hazards and availability of lead-safe housing.

**Goal 5: Assure the surveillance system provides the information and data needed to advance prevention activities.**

**Long Term Objective:**

Improve the reliability of the existing surveillance system as an effective tool for identifying the nature and scope of the existing childhood lead poisoning problem, high- risk populations and the effectiveness of the interventions.

**Short Term Objective 6.1:**

Use surveillance data to identify children with EBLLs.

**Activities:**

- Identify children with elevated blood lead levels and promptly forward information to nursing case manager for intervention and follow up.
- Contact reporting entities to discuss proper procedures for prompt reporting of EBLLs.

**Position(s) Responsible:**

Administrative Assistant, Nursing Case Manager

**Evaluation Measure:**

The number of children identified and referred. The number of reporting entities contacted and educated.

**Short Term Objective 6.2:**

Use surveillance data to identify at risk populations.

**Activity:**

- Analyze surveillance data to identify at-risk populations.

**Position(s) Responsible:**

Program Manager

**Evaluation Measure:**

The baseline identified. Percentage of increase in screening rate of at-risk populations.

**Short Term Objective 6.3:**

Use surveillance data to identify areas with high concentrations of pre-1978 housing.

**Activity:**

- Analyze surveillance data to identify zip codes for areas with high concentrations of pre-1978 housing.

**Position(s) Responsible:**

Program Manager

**Evaluation Measure:**

High-risk zip codes identified and listed in screening plan

## Lead Safe San Antonio Committee Members

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