Southern Nevada

Childhood Lead Poisoning Prevention Program

Elimination Plan

Developed by the
Southern Nevada Health District Childhood Lead Poisoning Prevention Program
and
The Nevada Institute for Children's Research and Policy

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FOREWORD

This Elimination Plan is a product of the Southern Nevada Health District's Childhood Lead Poisoning Prevention Program, and is developed as a coordinated effort between the Southern Nevada Health District's Childhood Lead Poisoning Prevention Program, and the Nevada Institute for Children's Research and Policy, a research center within the University of Nevada, Las Vegas School of Community Health Sciences. This document is intended as a framework for program activities, a source of guidance for collaborative entities, and a strategic outline of our objectives.

This document was created in cooperation with a myriad of community partners who share a passion for protecting children from environmental hazards. The goal of protecting our most precious resource is one that cannot be embraced alone, so we invite any interested parties, such as families, physicians, assorted healthcare providers, housing providers, renovators, lead service professionals, environmental organizations, policy makers, local, state, and federal governmental agencies, non-governmental agencies, citizens, and any other agencies who may wish to collaborate with us, to do so.

If you or your organization would like to help protect the children of Nevada from lead exposure, or if you would like additional information about the Southern Nevada Childhood Lead Poisoning Prevention Program, please contact:

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BACKGROUND/OVERVIEW

In July 2006, the Southern Nevada Health District (SNHD) was awarded a grant from the Centers for Disease Control and Prevention (CDC) to establish a comprehensive program to eliminate childhood lead poisoning as a public health concern in Nevada. Toward this goal, the Childhood Lead Poisoning Prevention Program (CLPPP) started in Clark County with the intention of eventually becoming a statewide program. The unique characteristics of the state of Nevada and Clark County in particular, justified the need to create such a program.

Lead Exposure and Child Development

"Lead Poisoning is the most significant and prevalent disease of environmental origin among US children."

-Annual Review of Public Health
Vol.18: 187-210 doi:10.1146/annurev.publhealth.18.1.187

Lead exposure has been identified as the primary preventable environmental health threat to children in the United States. The toxic effects of lead exposure are medically well-established, and believed to have a significant and irreversible deleterious effect on nearly every organ system in the body.

Lead is a metallic element that can be absorbed by the body. A child may ingest lead by swallowing dust or chemicals that contain lead, or by eating foods or other items contaminated with lead. In some cases, lead may also enter the body through inhalation, absorption through the skin, or injection.

Once lead enters the body, it travels through the bloodstream and deposits into the tissues of various organs (i.e. the liver, kidneys, lungs, brain, and muscles, etc.) After several weeks, lead is stored in the bones and teeth, and can remain there for up to 30 years. Lead can then be mobilized from the bones and teeth of an adult female during pregnancy. Since lead crosses the placental barrier, this poses a threat to the unborn baby.

The CDC's blood lead level of concern for children is 10 µg/dL. Any blood lead level greater than or equal to 10 µg/dL in a child is considered an elevated blood lead level (EBLL).

Children six years of age and under are particularly at risk of lead exposure through ingestion because they crawl and play on the ground, and tend to put their hands, toys and other objects in their mouths. Since young children absorb lead more easily and rapidly than adults, they are also at a greater risk of EBLLs.

A very high blood lead level in a child may cause significant damage to the brain, resulting in seizures, coma, and even death. Even if an EBLL does not exist, blood lead levels below the CDC's level of concern have now been associated with a wide range of adverse effects on children's health, including but not limited to: learning impairment, decreased intelligence, behavioral issues and juvenile delinquency, growth impairment, and a host of other damaging effects. In fact, in November 2007 the CDC released a statement declaring that any level of lead is deemed unsafe for children.

Given that most children may not have noticeable symptoms of lead exposure until cognitive abilities are identified as impaired, blood lead testing and lead exposure prevention are extremely important.

Southern Nevada CLPPP

In July 2006, SNHD was awarded a grant from the CDC to establish the CLPPP - a comprehensive statewide program developed to eliminate lead poisoning as a pediatric public health issue in Nevada through screening, surveillance, and primary prevention outreach and education functions. There are several characteristics unique to Nevada, and Clark County in particular, that justify the need for such a program.

Nevada At-Risk

Population Growth

Since 1994, Nevada has been the fastest growing state in the country, with over 70 percent of the state's population residing in Clark County. This rapid and significant population explosion has stretched state and county resources, limiting the ability to meet increasing demands for health and social services, such as blood lead testing and case management services.

Immigration

Minorities constitute 39 percent of Clark County's population, and approximately 26 percent of the population is of Hispanic origin. Population estimates indicate that undocumented immigrants constitute around 40 percent of the foreign-born population of Clark County. This demographic pattern presents concerns for public health initiatives and lead exposure prevention. Undocumented immigrants often do not have medical insurance, occupy older housing, earn lower wages, and may have suffered prior exposure to lead.

Poverty

One challenge of Nevada's large population influx is the increasing number of people living in poverty. The U.S. Census estimated in 2007 that 11 percent of people residing in Nevada lived below the poverty level. Low-income families may not be able to afford health insurance and may not receive preventive medical care such as blood lead screening. As the population of uninsured residents increases, so does the number of unscreened children.

Medicaid

Another factor associated with income is enrollment in Medicaid. The Centers for Medicare and Medicaid Services recognizes that low-income children are at a higher risk for EBLLs than the general population. As a result, they have established blood lead screening requirements as part of their Early & Periodic Screening & Diagnostic Treatment (EPSDT) benefit, a suite of screening and other child wellness services. In these requirements, all Medicaid-eligible children are to be tested for lead at 12 and 24 months of age, or at least once before the age of six years if not previously tested. This requirement means that a large portion of lower-income children are qualified for free screening. Given that of the 172,000

Medicaid enrollees in Nevada, 73 percent are families, children and pregnant women, enforcement of the EPSDT lead testing mandate is essential. However, it is believed that only 1 percent of Medicaid-eligible children in Nevada are being screened for lead exposure.

Traditional vs. Non-Traditional Sources of Lead Exposure

In the past, lead was widely used in such things as household paint, gasoline, pipe solder, and pesticides. These traditional sources of lead exposure are not major contributors to Southern Nevada's lead problem. In fact, environmental investigations indicate that non-traditional sources of lead may generate a disproportionate amount of lead exposure cases. Of the non-traditional sources of lead, the ones found most often during investigations were ceramic tile, imported candies, and risk factors associated with parental occupation.

The cultural practices of some minority groups in Southern Nevada may also contribute to pediatric lead exposure. The use of glazed cooking and eating utensils that contain lead in the glaze, as well as folk remedies containing lead have been documented in Southern Nevada. Use of these materials has resulted in documented cases of children with elevated blood lead levels.

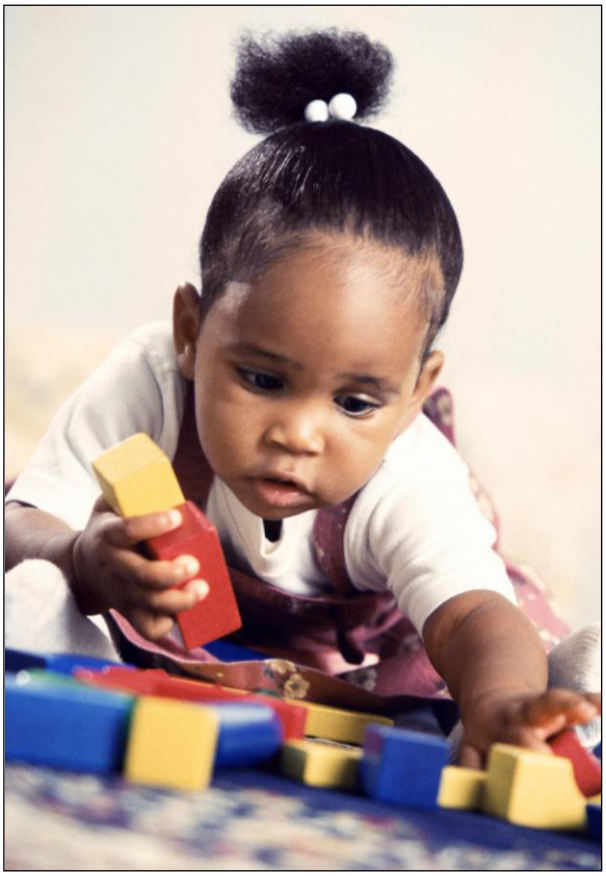
Most housing in Southern Nevada was built post-1978 and lead-based paint was rarely used, making this a minor risk factor for lead exposure. As the CLPPP expands into a statewide program, Northern Nevada's older housing stock may prove to have a more extensive use of lead-based paint. This additional source of lead exposure may create a divergence from risk factors found in Southern Nevada.

GOALS, OBJECTIVES & STRATEGIES

The Southern Nevada Health District Childhood Lead Poisoning Prevention Program has developed a number of goals and related objectives, which form a framework by which to address their overarching goal of elimination of lead poisoning as a threat to the health and well-being of Nevada's children by the year 2010. These goals and objectives are the core of the SNHD CLPPP Elimination Plan.

Goal 1: Strive to eliminate lead poisoning as a public health concern for Clark County's children by 2010

Objective 1: Increase services related to detecting and managing lead exposure in children



Implementation Strategy 1 – Screening

i. Develop a screening plan for BLLs in children up to and including 72 months of age in Clark County
ii. Focus on Medicaid-eligible, underinsured, and uninsured children in Clark County
iii. Utilize LeadCare II to increase screening and education
iv. Increase screening rate for children residing in Clark County

Screening rates for Clark County

Baseline: 2.95%, Calendar year 2006

Calendar Year	Target	Percentage Point Increase from Previous Year
2007	3.95%	1.0
2008	5.95%	2.0
2009	7.95%	2.0
2010	10.95%	3.0
2011	14.45%	3.5

Number of first time blood lead test reports received by the Southern Nevada Health District divided by population estimates for children residing in Clark County aged less than 72 months. Population estimates are based on CDC Wonder data for children 5 years of age and younger.

Implementation Strategy 2 – Case Management

i. Develop a Case Management Protocol
ii. Develop an Environmental Investigation Protocol
iii. Ensure that children with an EBLL receive proper medical attention through available resources
iv. Provide case management and environmental investigations
v. Enter all case related data, including case management and environmental, into the program's database (i.e. STELLAR)

Implementation Strategy 3 – Surveillance

i. Collect and analyze data to identify at risk populations and guide educational efforts
ii. Maintain blood lead screening database
iii. Develop methods to more effectively relay BLL related data
iv. Develop a Blood Lead Data Entry Protocol
v. Develop a STELLAR Report Protocol for obtaining most pertinent screening data
vi. Identify sources for data other than screening
vii. Assist community partners in developing methods to collect relevant data

Objective 2: Assessing the presence of lead in the environment

Implementation Strategy 1 – Assess residential housing built prior to 1978

i. Identify homes built prior to 1978

ii. Contact home owners and offer information on lead hazards and lead inspections
iii. Maintain database of all housing lead inspections

Implementation Strategy 2 – Assess other properties where young children spend time built prior to 1978

i. Identify licensed child care facilities and elementary schools
ii. Identify other properties where young children may spend time
iii. Contact identified properties and schedule lead inspections
iv. Maintain database of all properties where lead inspections are conducted

Implementation Strategy 3 – Expand assessments to properties where young children spend time built post 1978 that may contain non-traditional sources of lead

i. Identify relevant properties
ii. Contact identified properties and schedule lead inspections
iii. Maintain database of all properties where lead inspections are conducted

Objective 3: Increase public awareness about the dangers of lead exposure

Implementation Strategy 1: Educate the general public about the dangers of lead

i. Attend community outreach events
ii. Utilize media to disseminate message (at least English and Spanish media sources)
iii. Target at risk communities and groups
iv. Initiate educational campaigns through faith-based and cultural organizations

Implementation Strategy 2: Develop culturally appropriate outreach and educational materials

i. Provide all educational materials in at least English and Spanish

ii. Evaluate effectiveness of materials developed with different pertinent groups
iii. Develop and test key messages for target audiences, including the general public, medical community, child cares, and real estate related entities
iv. Develop standardized presentations containing accurate and relevant information for parents, providers, specific ethnic and minority groups, community partners, religious groups, etc.

Implementation Strategy 3: Educate medical community

i. Promote established standards for blood lead screenings of at-risk populations (e.g. young children, pregnant women) by healthcare professionals, including OB/Gyn, and health insurers
ii. Track screening rates by provider
iii. Utilize medical and nursing school curriculums as means of distributing information

Implementation Strategy 4: Educate child care providers

i. Develop list of all licensed child care providers
ii. Contact all child care providers to offer educational materials, presentations, blood lead screenings, etc.

Implementation Strategy 5: Educate builders, realtors, contractors, homeowner associations, landlords

i. Develop list of all relevant entities
ii. Contact all relevant entities to offer educational materials and presentations
iii. Bring awareness about requirement for Disclosure Rule - Title X Section 1018 - Disclosure of information concerning lead-based paint upon sale or lease of pre-1978 residential property
iv. Offer Lead Safe Work Practices training on an as needed basis
v. Track disclosure violations and possible violations identified during case investigations, reports from the public, and any other available means.

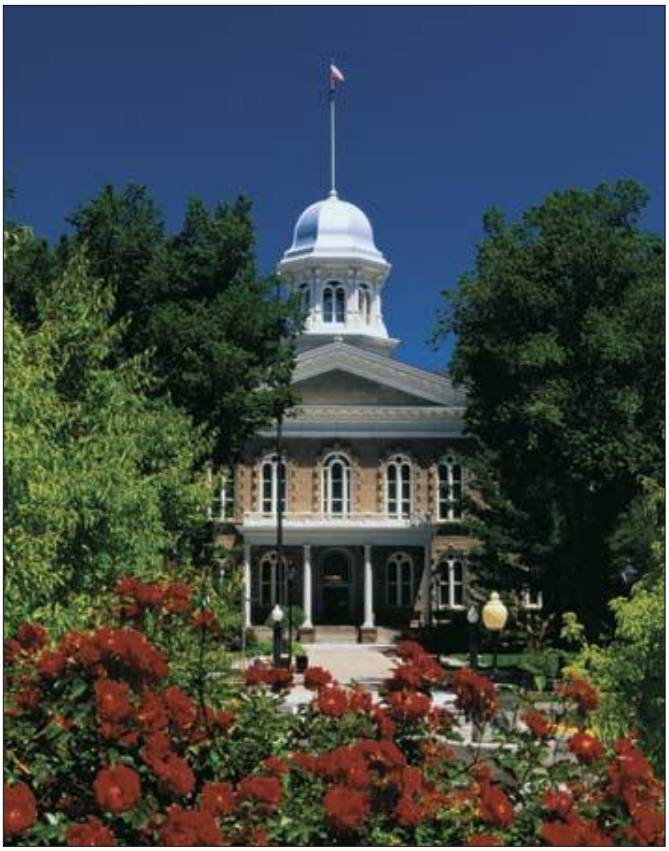
Objective 4: Utilize legislation, regulations, and guidelines at all governmental levels to further program efforts

Implementation Strategy 1: Identify and analyze model legislation and/or regulations from other states and jurisdictions

i. Identify if and how these strategies would work in Clark County
ii. Identify needs in Clark County that can be addressed in state legislation

Implementation Strategy 2: Develop legislation to assist in achieving program goals of screening and lead exposure prevention for at risk populations in the state of Nevada

i. Promote support for proposed legislation among legislators
ii. Provide legislators with details regarding costs and possible implementation difficulties along with solutions



Objective 5: Acquire community support and maintain inter-agency communication

Implementation Strategy 1: Engage relevant organizations as CLPPP partners

i. On a continual basis, identify community organizations and governmental agencies that have a stake in child health and environmental safety issues
ii. Invite identified organizations and agencies to participate in the CLPPP SAC, workgroups, and activities

Implementation Strategy 2: Implement methods by which current and potential program members can network and become informed about the program's progress

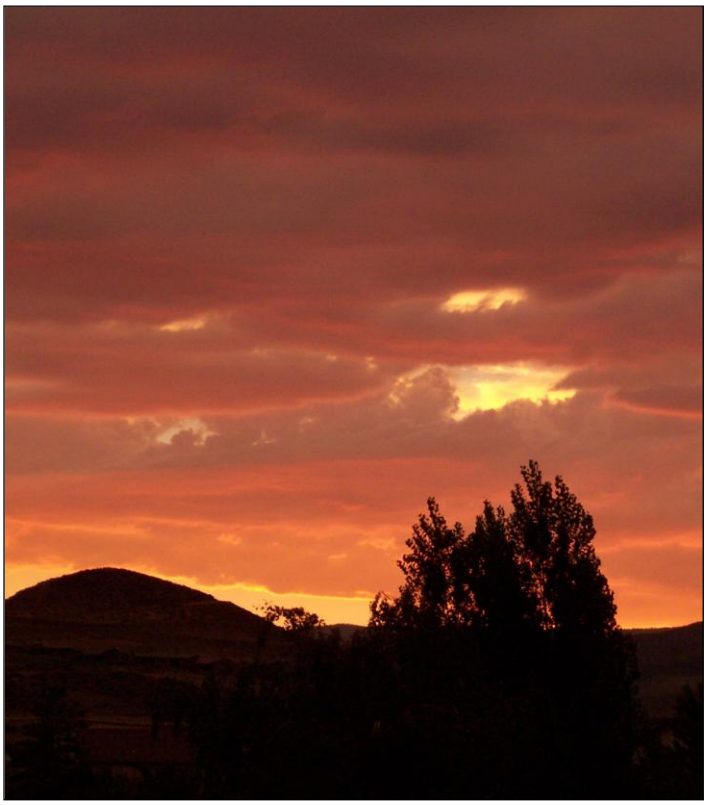
i. Develop website for member use
ii. Hold quarterly SAC meetings and regularly scheduled workgroup meetings
iii. Provide meeting minutes, newsletters, current statistical data, etc.

Implementation Strategy 3: Coordinate outreach efforts

i. Develop up-to-date calendar of activities to communicate current outreach activities

Goal 2: Eliminate lead poisoning as a public health concern for Northern and rural Nevada's children by 2010

Objective 1: Expand all strategies implemented in Clark County to Northern and rural Nevada



Implementation Strategy 1: Assess particular needs for specific regions to modify program activities to fit those needs

Implementation Strategy 2: Develop and strengthen relationships with key stakeholders who will provide expertise about key concerns in these areas

Implementation Strategy 3: Continue to include stakeholders/officials from these areas in SAC meetings and special State and Local Health Officers meetings

Goal 3: Establish a sustainable lead program in the state of Nevada by June 30, 2011

Implementation Strategy 1: Develop strategic partnerships and promote sustainability

i. Identify potential partnerships
ii. Develop Strategic Advisory Coalition (SAC) composed of community stakeholders
iii. Solicit participation and promote collaboration with private and public agencies at the national, state and community agencies
iv. Actively seek additional program funding from public and private sources

Implementation Strategy 2: Develop a Healthy Homes program to address lead exposure and other health issues

i. Seek funding
ii. Collate data regarding Healthy Homes issues including but not limited to asthma triggers, mold, vermin, indoor air qualities, etc.
iii. Determine scope of problem based on available data for the state and different regions

Implementation Strategy 3: Find resources for individual community members and property owners affected by lead

i. Identify and develop sustainable funding strategies for lead hazard controls

Implementation Strategy 4: Develop legislation to support BLL screenings and lead exposure prevention for at risk populations in the state of Nevada

i. Promote support for proposed legislation among legislators
ii. Provide legislators with details regarding costs and possible challenges in implementation, along with solutions

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