

# CHILDHOOD LEAD POISONING PREVENTION PROGRAM 2007-2008 ANNUAL REPORT

The goal of the Southern Nevada Health District Childhood Lead Poisoning Prevention Program (CLPPP) is to eliminate lead poisoning as a significant health risk for children living in the state of Nevada. These efforts started in Clark County, where over 70 percent of the state's population resides and will expand to Northern and rural Nevada by the end of the grant term.

The CLPPP is divided into five workgroups composed primarily of community stakeholders from public and private organizations throughout Nevada. CLPPP staff also participates in all workgroups, which include Screening & Case Management, Surveillance, Primary Prevention, Legislative Affairs, and Evaluation.

During project year II, the program's course changed due to its transition from the health district's Community Health Division to the Environmental Health Division. The following report illustrates accomplishments made by each workgroup that go beyond the specified goals and objectives for grant year II. (See Appendix A for details on set goals

and objectives, as well as completion status.)

## Screening & Case Management

During project year II, 16 cases were opened for children age 72 months and younger with a blood lead level greater than or equal to 10µg/dL. Case management includes monitoring medical care and regular blood tests until the child's blood lead level is less than 10µg/dL. If necessary, the case manager also coordinates treatment and/or hospitalization for an affected child. Education about lead hazards and ways to decrease lead exposure is provided to every family and, when needed, referrals to services are provided. Examples of services include Nevada's Early Intervention Services for developmentally delayed children and the Nevada Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).

An environmental investigation (EI) may be conducted as part of the case management process depending on the circumstances surrounding



the case. Travel outside of the U.S. prior to being screened, living in a home built after 1978, and being in state custody are examples of situations that would prevent an EI from being conducted for a child. For this reason, the number of children with BLLs  $\geq 10\mu\text{g}/\text{dL}$  for this project year may be different from the number of cases opened and also from the number of EIs conducted.

With the approval by Nevada state authorities for the use of the LeadCare II blood lead analyzer, the health district began conducting lead screenings during project year II. The Screening & Case Management team screened children at 10 health fairs. In addition, screenings were conducted in partnership with the Head Start program.

The nursing case manager also worked to build support for the issue of lead exposure through networking. In the last year, key relationships were formed with HMOs, elementary



schools, WIC, Head Start, Nevada Covering Kids & Families and the Nevada Department of Health and Human Services Office of Minority Health.

### ENVIRONMENTAL INVESTIGATIONS

Environmental investigations may be conducted as part of case management when a child age 72 months and younger is found to have a blood lead level  $\geq 10\mu\text{g}/\text{dL}$ . Investigations examine both traditional sources (e.g., paint, tile, windows) and non-traditional sources (e.g., imported candy, toys, jewelry) of lead in a child's home.

During the course of the investigation, certified risk assessors notify parents or guardians about positive readings obtained using an XRF (X-ray Fluorescence) analyzer and provide guidance on lead

hazards. Environmental samples, such as soil, water, food items, etc., are shipped to a lab for testing. Once all results have been received, a final report that includes recommended remediation is produced and mailed to the family.

During this past project period, 15 environmental investigations were conducted. About 80 percent of the homes were built prior to 1978 and the most frequent sources of lead were tile, ceramic dishes and jewelry.

### Surveillance

During the current project year a total of 9,630 children ages 72 months and younger were screened. Every month showed an improvement in screening rates of no less than 26 percent and as high as 212 percent from the

same month the previous year. Overall screening rates increased 73 percent compared to the previous year.

The LeadCare II blood lead analyzer was approved for use in the state of Nevada in February 2008. In just four months, March 2008 through June 2008, 762 children were screened using the LeadCare II analyzer, accounting for almost 20 percent of all screenings performed during those months.

Of all children screened during project year II, 63 percent were identified as being of Hispanic origin. Ethnicity (i.e., Hispanic, non-Hispanic) is based on an analysis of the patient's last name when the lab report is received by the health district, and is not based on self-reports. Racial data is only available for approximately 4 percent of the children screened. Of the children who have available racial data over 60 percent are described as Black or African-American and approximately 28 percent are described as White. Children described as Asian, American Indian, Native Hawaiian, and multi-racial constitute less than 10 percent of the children with available racial data.

An odds ratio analysis was conducted using project year II screening data to determine the risk for lead exposure in Hispanic children. This analysis demonstrated that in Clark

County **non-Hispanic children are more likely than Hispanic children** to have a blood lead level greater than or equal to 5µg/dL. This finding indicates a need for primary prevention efforts targeting non-Hispanic residents of Clark County, along with the ongoing efforts to reach the Hispanic community. Non-Hispanic children include those of African-American, Asian, and Caucasian backgrounds. An analysis to determine the risk of having a blood lead level ≥10µg/dL could not be conducted due to the small number of children that met this criterion.

Of the total number of children screened this year approximately 24.5 percent had a detectable level of lead in their blood.

- 22.8 percent had blood lead levels >0µg/dL and <5µg/dL
- 1.5 percent had blood lead levels ≥5µg/dL and <10µg/dL

- 0.20 percent had levels ≥10µg/dL

During the last year, ZIP Code data was reported for 73 percent of children with a detectable blood lead level. ZIP Codes with the highest screening numbers are 89030, 89115, 89101 and 89110. Not surprisingly this is also where most of the children with a detectable blood lead level reside. Of these four ZIP Codes only 89030 and 89101, overlap with ZIP Codes in Clark County where a significant number of older housing units exist. These data demonstrate that a link between older housing and exposure to lead cannot be made with the data available at this time.

### Primary Prevention

The Primary Prevention Workgroup brings awareness about the issue of lead exposure to the Southern Nevada community through a threefold effort. The goals of the group include

educating the community at large through various outreach activities, increasing screening rates by educating the medical community, and gathering information about the stock of older housing and child care facilities in Clark County.

### COMMUNITY OUTREACH

The Primary Prevention Workgroup has worked diligently during this project year to refine and distribute childhood lead exposure informational materials throughout the southern Nevada community. Educational items include a bookmark and a brochure, both available in English and Spanish. These materials were designed and produced this year in conjunction with the health district’s Public Information Office.

During the past project year 13,330 bookmarks were distributed. A partnership formed with Sierra Health Services (now UnitedHealthcare Services)

### SCREENING TOTALS, CHILDREN AGE 72 MONTHS AND YOUNGER

	Total	ETHNICITY			SEX		
		Hispanic	Non-Hispanic	Unknown	Male	Female	Unknown
Number Screened	9,630	6,025	3,605	0	4,961	4,665	4
BLL 0µg/dL	7,272	4,574	2,698	0	3,710	3,559	3
Detectable BLL	2,358	1,451	907	0	1,251	1,106	1
>0µg/dL and <5µg/dL	2,196	1,362	834	0	1,162	1,033	1
≥5µg/dL and <10µg/dL	144	79	65	0	82	62	0
≥10µg/dL *	18	10	8	0	7	11	0

\* Only children with confirmatory blood lead results are included. Three children who initially tested with a BLL ≥10 µg/dL are not counted above due to subsequent inconclusive blood lead results.



**PARTIAL LIST OF  
OUTREACH ACTIVITIES**

***Health-related Events/Fairs***

- Reformation Lutheran Church Health Fair
- Nevada Infant Immunization Week Kick-Off
- St. Anne’s Fair
- Kindergarten Round-Up
- Latinos Unidos Celebrando Salud Health Fair

***Presentations to Faith-based Organizations***

- Interfaith Council of Southern Nevada
- Clark County Ministerial Association
- Consejo Pastoral de Las Vegas
- Community Interfaith Council

***Presentations to Professional Organizations***

- Nevada Environmental Health Association
- Clark County School District health/science teachers
- American Industrial Hygiene Association, Nevada Section
- Nevada Association of Code Enforcement
- American-Indian Summer Health Institute
- Nevada State Health Division Maternal & Child Health Advisory Board

facilitated a large distribution of bookmarks through the PINK packet program. This program is sponsored by the Southern Nevada Immunization Coalition and provides health information to all new mothers in Southern Nevada. Lead brochures were also distributed through the health district’s main public health center, doctor’s offices, health fairs, and during screening events. The brochures are currently available online and can be downloaded by community members, so these numbers may be an underestimate of actual distribution.

**Primary Prevention**  
Workgroup team members represented the CLPPP at more than 20 community outreach and educational events during the past project year. *(See sidebar for a partial list of these events, which demonstrates the variety of events attended and the diverse populations that were addressed.)*

Education was also provided to students at various levels. Education about the dangers of lead exposure was provided for staff and students at local preschools, fourth graders at a local elementary school, and interns in health care career paths. A total of 16 in-service activities were conducted between July 2007 and June 2008.

The Primary Prevention Workgroup utilized local media outlets to inform the community

about childhood lead exposure. Interviews were conducted with all major TV news channels in Las Vegas. Radio interviews were also pivotal in this outreach effort and included:

- Two Spanish public affairs shows airing on a total of five stations
- Three appearances on “State of Nevada,” a public affairs program broadcasted through Nevada Public Radio
- “Healthier Tomorrow,” a monthly health topic show with a listenership of approximately 12,000 people, about 80 percent of who are African-American

The CLPPP participated in planning and hosting the 2008 Western States Regional Childhood Lead Poisoning Prevention Meeting held at the Las Vegas Hilton Hotel & Casino from June 9-11. The meeting, held in conjunction with the Nevada Environmental Health Association Conference, opened with a video address by Senator Harry Reid, which was arranged by the Legislative Affairs Workgroup.

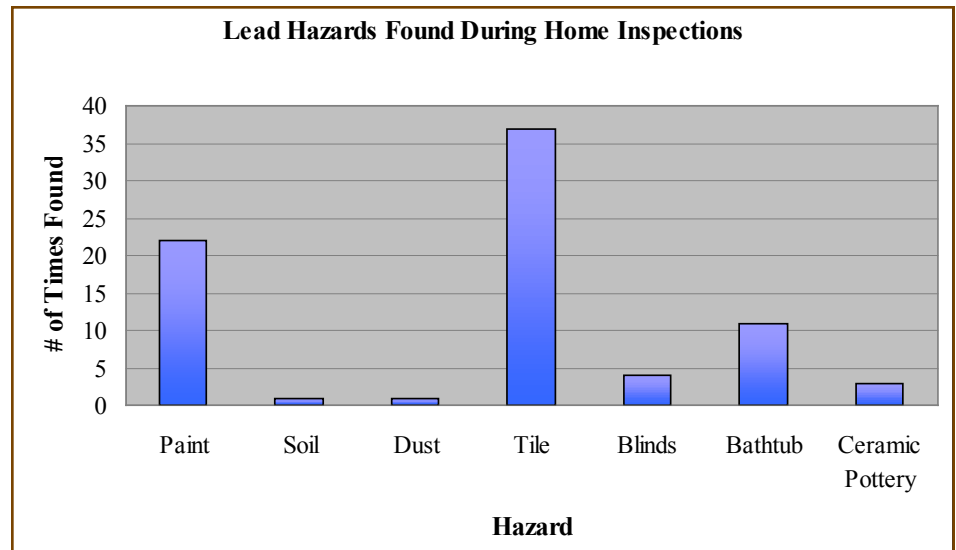
This year important headway was made in working with the Nevada Division of Health Care Financing and Policy (Medicaid). In November 2007, a letter was drafted by the health district for use by Medicaid and was posted on the state website.

The letter provides information for Medicaid recipients about the dangers of lead exposure and the screening benefits to which they are entitled. Health Plan of Nevada, a subsidiary of Sierra Health Services (now UnitedHealthcare Services), also highlighted the issue of lead exposure in its winter 2007 *MedNotes* newsletter to Medicaid providers, as well as their *Healthy News for You* newsletter for Medicaid recipients. In total these newsletters reached over 250,000 individuals.

### HEALTH CARE PROVIDER EDUCATION & OUTREACH

The Primary Prevention Workgroup educated health care providers in Southern Nevada about the importance of screening children for lead. Medical professionals received CLPPP brochures, bookmarks, and any other available materials during these educational events.

A special lead workshop for WIC clinic directors was conducted in Southern Nevada and televised to Elko and Carson City, located in Northern Nevada. Approximately 40 people attended this workshop including directors and state staff. WIC staff also voluntarily developed a Lead Lesson Plan, making the topic of lead exposure an available educational topic to all WIC clinics in the state of Nevada.



Presentations were also conducted for Clark County School District nurses at the April 2008 Nevada Association for the Education of Young Children annual conference. This year the conference had over 500 attendees.

A Continuing Medical Education course was developed and posted on the Area Health Education Center of Southern Nevada (AHEC) website in October 2007. (*A link to this site also exists on the SNHD website.*) Notices about the course were sent to approximately 1,000 pediatricians, family practitioners, general practitioners and gynecologists. Thus far, four health care professionals have participated in this on-line educational opportunity.

English and Spanish versions of a lead poisoning prevention video produced by the New Jersey Department of Health and Senior

Services were identified and, with permission, reproduced for use in Southern Nevada. In February 2008, there was a brief presentation for a group of 150 providers working for Nevada's largest medical group, Southwest Medical Associates. In total, 150 New Jersey lead rap DVDs were distributed to local doctors at this and other educational events held this year. The health district, along with these doctors, agreed to play the videos in their waiting rooms, reaching a large number of members of the public.

### HOUSING BASED PRIMARY PREVENTION

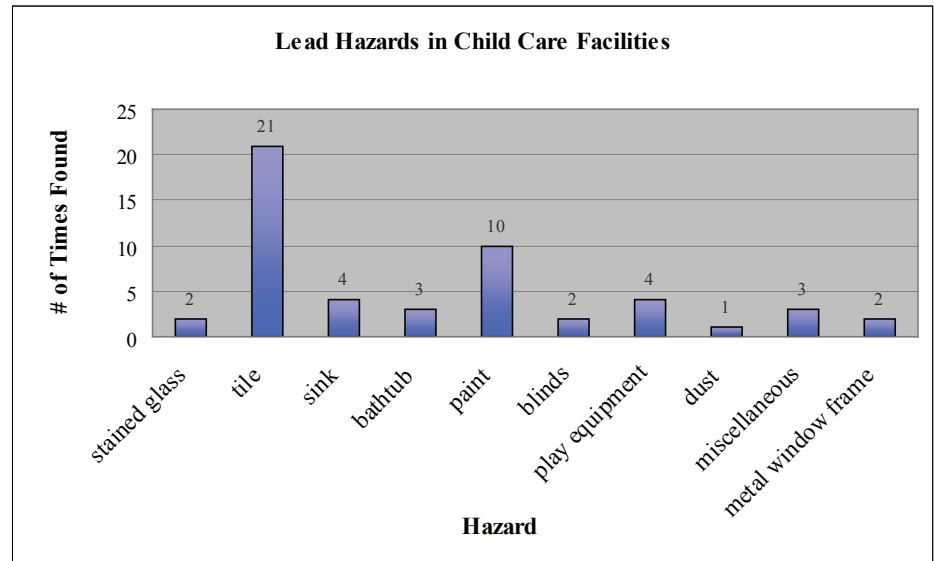
As of June 30, 2008, EPA-certified lead risk assessors from the UNLV Nevada Centers for Environmental Health Surveillance (NCEHS), along with other UNLV personnel, conducted 70 pre-1978 residential environmental lead hazard evaluations. These inspections

were conducted to assess the lead-based paint burden in the Southern Nevada housing stock. In addition to analyzing paint, the team also looked at other potential sources of lead found in the home at the time of the evaluation. Program participants were sent a written report with investigation findings and recommendations approximately 6-8 weeks after the completion of the lead hazard evaluation, in addition to receiving lead brochures and education during the evaluation.

It was originally projected that 150 residential environmental lead hazard investigations would be completed by the end of the project year. Due to delays in recruiting participants and a generally low interest in the community, this goal could not be reached.

The majority of lead sources came from lead-based interior and exterior paint, tile, and bathtubs. There were a few instances when leaded glazed ceramics and blinds were found as sources of lead in the participant's home.

NCEHS staff has also begun assessing the possibility of lead exposure through artificial turf. This project began in June 2008 and is expected to continue during the next project year. Currently, two artificial turf evaluations have been conducted in Las Vegas.



### PRIMARY PREVENTION CHILD CARE ASSESSMENTS

In January 2008, the health district's Environmental Health staff began primary prevention lead hazard screenings of pre-1978 childcare facilities in Clark County. During this project period 46 child care screenings were conducted in eight different ZIP Codes in Clark County.

During child care assessments paint and other potential sources of lead were analyzed. Approximately 67 percent of the child care facilities screened were found to contain at least one lead hazard. The most frequent lead hazards detected were tile and paint. A written report of the child care assessment was provided to each facility approximately 8-12 weeks after the completion of the evaluation.

### Legislative Affairs

The Legislative Affairs Workgroup, chaired by the Nevada Institute for Children's Research and Policy (NICRP) staff, has had several meetings with statewide health authorities as well as with the Nevada Division of Health Care Financing and Policy (Medicaid) in order to determine statewide needs for children regarding lead poisoning prevention.

Two presentations were also made to the Nevada Legislature Interim Legislative Committee on Health Care regarding the needs of the program. The Legislative Affairs Workgroup requested that a CLPPP Interim Report be created to inform and address questions by the Health Care Committee. This report was completed in March 2008. The Legislative Affairs Workgroup continues to review and revise

requests from the Health Care Committee in order to draft acceptable language pertaining to lead testing and reporting.

The Legislative Affairs Workgroup is also assisting health district staff in developing a parent advocacy group that will provide testimony and support during the next legislative session. This project is in the beginning phases and recruitment will begin during the next project year.

Recently, the Legislative Affairs Workgroup participated in a presentation to the Southern Nevada District Board of Health regarding the CLPPP and the legislative initiatives that are being worked on.

## Evaluation

The Evaluation Workgroup participated in all monthly project staff meetings and held quarterly workgroup meetings to discuss progress and implementation challenges. This workgroup significantly contributed to the Interim Report that was completed in March 2008 and distributed to the Southern Nevada District Board of Health and to members of the Nevada Legislature Legislative Committee on Health Care. The report will be sent to all Nevada State legislators during the upcoming legislative session beginning in February 2009, as well as other policymakers statewide.

A member of the Evaluation Workgroup also attended the CDC Lead Poisoning Prevention Training Center in October 2007 to receive detailed training on the program and evaluation implementation.

The Evaluation Workgroup assembled a process evaluation of the CLPPP and in conjunction with health district staff contributed to the CLPPP annual report.

### SUPPLEMENTAL GRANTS

Additional funds were secured to conduct a survey on Hispanic cultural practices and to measure parent/guardian knowledge, beliefs and attitudes about lead poisoning. The groundwork for this project was completed during project year II, however, data collection and analysis will take place during project year III.

The NICRP secured additional funds to create a user-friendly website targeted at parents and to produce a television and radio public service announcement. Both the website and the public service announcement will be available in English and Spanish. Drafts of both the PSA and website were completed in June 2008. Distribution of the PSA and launch of the website will occur during project year III.

A grant submitted to the Nevada Public Health Trust Fund by NCEHS and University

Medical Center Hospital (UMC) was funded to screen approximately 4,500 children. The target population is children who are uninsured or underinsured. Additionally, UMC reports that 90 percent or more of the children that visit their clinics are from minority populations and will benefit from these screenings. Activities for this grant will occur in project year III.

AHEC secured a Lead Outreach grant from the U.S. Department of Housing and Urban Development. During the last year they worked to promote blood lead screenings for children who live in pre-1978 homes. Bus stop promotion ads were produced in English and Spanish and were placed in eight targeted areas in southern Nevada. The focus of these ads was restricted to awareness about the dangers of lead-based paint. Informational ads were also placed in two local newspapers, the *Las Vegas Review Journal* and its Spanish counterpart, *El Tiempo Libre*, and radio advertisements also aired. The newspaper and radio announcements ran for approximately three months.



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