



**PREVENTING EXPOSURE OF TRIBAL CHILDREN
& COMMUNITY MEMBERS TO LEAD HAZARDS**

PREVENTING EXPOSURE OF TRIBAL CHILDREN & COMMUNITY MEMBERS FROM LEAD HAZARDS

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EPA Region IX - Communities & Ecosystems
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CHILDHOOD LEAD POISONING *IS & SHOULD BE* ENTIRELY PREVENTABLE

- ✘ *No Child Should Have Lead Poisoning.* Approximately 250,000 children in US aged 1-5 years old have blood lead levels > 10 micrograms of lead/deciliter of blood (level that US Centers for Disease Control recommends initiation of public health actions);
- ✘ Factsheet: *“What you need to know about lead poisoning;”*
- ✘ <http://www.epa.gov/lead/pubs/chancefactsheet.pdf>
- ✘ R9 Tribes have included in tribal newspaper/newsletter; mailed to community members; posted at tribal offices, schools, clinics, HeadStart & community locations.



NATIONAL LEAD POISONING PREVENTION WEEK: OCTOBER 24-30, 2010

- ✘ EPA observes *National Lead Poisoning Prevention Week* to focus on importance of informing parents, guardians, care providers & children about dangerous health effects of lead exposure, especially lead-based paint hazards in & around pre-1978 residential housing;
- ✘ National 2010 theme, "*Lead-Free Kids for a Healthy Future*," underscores importance of how parents/ guardians can reduce child's exposure to lead hazards & prevent adverse health effects.



NATIONAL LEAD POISONING PREVENTION WEEK: OCTOBER 24-30, 2010

- ✦ *Protecting Health of Children & Families*
- ✦ *Testing Housing for Lead Hazards:* Ask about a lead hazard inspection before buying/renting pre-1978 housing (especially if family has young children);
- ✦ *Have Young Children Tested:* Ask doctor/clinic to test your young child for lead poisoning even if they seem healthy;
- ✦ *Get the Facts:* Information to prevent lead poisoning: www.leadfreekids.org. EPA's, CDC's & HUD's [lead poisoning prevention week poster \(PDF\)](#) (1 pg).



HEALTH EFFECTS OF LEAD POISONING

- ✘ *Most at risk:* lead poisoning especially harmful to children under 6 years old who are exposed;
- ✘ When lead absorbed in body, interferes with development/functioning of organs particularly kidneys, red blood cells & central nervous system, and causes serious damage depending on severity of lead exposure;
- ✘ Lead poisoning can result in slowed development, learning or behavior problems, lowered intellect (IQ), and/or hearing loss;
- ✘ Lead may cause a range of adverse health effects, from behavioral problems/learning disabilities to seizures/death.



SYMPTOMS OF CHILDHOOD LEAD POISONING

- ✘ *Symptoms of lead poisoning:* Headache, stomach ache, nausea, tiredness and/or irritability;
- ✘ Most children with lead poisoning do not show *any* noticeable symptoms unless blood lead levels are extremely high. Because lead poisoning often has no obvious external symptoms, it frequently is unrecognized and *not* treated;
- ✘ Symptoms of lead poisoning akin to flu symptoms; the only way to confirm if child is lead poisoned is by medically-safe blood lead screening.



PREVENTING LEAD POISONING

- ✘ *Options to treat lead poisoning are limited: prevent lead poisoning before it occurs. Prevent lead poisoning with proper:*
- ✘ *Lead Safety:* Hire certified professional to safely remove lead sources at pre-1978 housing/child-occupied facilities; ensure that children/pregnant women do not stay inside pre-1978 housing when renovations are conducted;
- ✘ *Personal Care:* Wash child's hands frequently especially before eating/sleeping. Wash child's toys/chewable surfaces, purchase "*lead free*" products (mini-blinds, cookware), and wet mopping and drying floors/surfaces;



PREVENTING LEAD POISONING

- ✦ *Nutrition:* Serve foods high in iron content (eggs, cooked beans, red meats); calcium (cheese, yogurt, cooked greens) & vitamin C (citrus fruits, green peppers, tomatoes). Adequate nutrient intake minimizes lead absorption in child's body;
- ✦ *Caution:* US Food & Drug Administration webpage says "FDA advises that parents, care providers & others not allow children/pregnant women to eat candy imported from Mexico at this time. Information & advisories on lead in candy...from FDA at www.fda.gov or 1-888-463-6332." <http://www.cdc.gov/nceh/lead/tips/candy.htm>



BLOOD LEAD SCREENING: PROTECTING CHILDREN FROM LEAD POISONING

- ✘ *Blood Lead Screening*: The only reliable way to detect childhood lead poisoning is by medically-safe blood lead screening;
- ✘ Children 6-24 months old absorb more lead; screening is important to ensure child's health. All children under age 6 should have lead levels determined by doctor/clinic even if child acts, seems & looks healthy;
- ✘ Privacy of individually-identifiable health information is *strictly protected* under penalty of federal law by US Dept Health & Human Services' Office of Civil Rights:
<http://www.hhs.gov/ocr/privacy/>



SOURCES OF LEAD

- ✘ Lead (*toxic metal*) was used in products in & around homes: lead-based paint, vinyl mini-blinds, leaded crystal, dishware, pottery coatings, stained glass & lead shot/bullets/fishing sinkers.
- ✘ Lead, rarely found in source water, enters tap water from corrosion of plumbing materials: drinking water. Pre-1986 homes more likely to have lead pipes/ fixtures/solder, but new homes also a potential risk: legally- “*lead free*” plumbing may contain up to eight (8) percent lead;



SOURCES OF LEAD

- ✘ Motor vehicles *were* major source of lead air emissions; due to EPA efforts to reduce leaded gasoline, vehicular lead emissions are greatly declined in the past 20 yrs. Today industrial processes, primarily metal processing, are major source of lead air emissions. Highest air concentrations of lead usually near lead smelters. Other stationary sources: waste incinerators, utilities, lead-acid battery manufacturers;
- ✘ Many homes built < 1978 have lead-based paint. Generally, the older your home, the more likely it has lead-paint. Soil around housing can have lead from sources like deteriorated exterior paint, past use of leaded gas in cars, or past housing renovations;



SOURCES OF LEAD

- ✘ Household dust can pick up lead from deteriorating lead-paint, from past renovations or from soil tracked into a home.
- ✘ If you work with lead, you can bring it home on hands/clothes. Important to shower/change clothes before going home. Wash lead-contaminated work clothes separately from family clothes/towels/bedding.
- ✘ To protect consumers, US Consumer Product Safety Commission banned use of lead-based paint in housing as of 1/1/1978. All housing built *after* 1/1/1978 is assumed “*lead free*.”



EXTENT OF LEAD-BASED PAINT IN US HOUSING

- ✗ HUD national survey (*Lead & Allergens in Housing*) estimates that 38 million permanently-occupied US housing units (40% of all US housing units) contain *some* lead-based paint applied before residential use of lead-based paint was banned in 1978.
- ✗ “*Housing units*,” single-family homes, manufactured housing & multi-unit dwellings like apartments. Vacant housing, group housing (prisons, hospitals, dormitories), hotels/motels, military bases & housing where children are not permitted to live (housing exclusively for elderly) are *not* included.



COMMON SOURCES OF LEAD POISONING DUE TO LEAD-BASED PAINT HAZARDS (LBP)

- ✘ Deteriorating lead-based paint (peels, chips, cracks);
- ✘ Lead-contaminated dust;
- ✘ Lead-contaminated residential soil;
- ✘ Lead-based paint hazards can be found in various places inside and outside pre-1978 housing including:



LEAD-BASED PAINT (LBP) AT PRE-1978 HOUSING/CHILD-OCCUPIED

- ✖ Lead-based paint/LBP hazards most often at pre-1978 housing/child-occupied facilities (schools, daycare, preschool, HeadStart);
- ✖ Greatest exposure risk is poorly-maintained LBP (peels, chips, cracks), lead dust, lead-in-soil contaminants;
- ✖ Younger children most susceptible to ingest lead dust/LBP chips (from hand-to-mouth behavior);
- ✖ Colorado River Indian Tribes identified lead-based paint at HeadStart building & remediated by removing LBP hazards.



LEAD DUST

- ✗ Harmful, invisible dust created when windows/doors or surfaces with lead-based paint wear down from repeated friction (abrasion) - opening or closing windows/doors.
- ✗ Children most often poisoned by ingesting lead dust or lead-based paint chips by hand-to-mouth transmittal.
- ✗ Pregnant women who inhale lead dust can transmit lead poisoning to fetus thus causing serious health damage.
- ✗ Lead dust can spread throughout home when walls/painted surfaces are sanded/scraped/torn down. Only trained professionals should safely remove lead-based paint surfaces in pre-1978 housing/child-occupied facilities.



LEAD-IN-SOIL CONTAMINATION

- ✖ Soil around pre-1978 housing/child-occupied facilities may be contaminated from chipped exterior lead-based paint;
- ✖ Playing on bare soil, children can accidentally ingest lead-contaminated soil, or bring it indoors where exposure can occur (including exposure to infants);
- ✖ Hoopa Valley Tribe assessed/excavated/disposed of 16 cubic yards of lead-contaminated soil at tribal housing area, removing potential source of lead exposure to area residents. Largely BIA funded since BIA was original owner of housing.



EPA REQUIREMENT TO REDUCE LEAD HAZARD RISKS & USE LEAD SAFE WORK PRACTICES

- ✘ Common renovation activities like sanding, cutting & demolition can create hazardous lead dust/chips by disturbing lead-based paint;
- ✘ 4/22/2008: EPA issued rule requiring the use of lead-safe practices & other actions to prevent lead poisoning;
- ✘ 4/22/2010: contractors performing renovation/repair/painting projects that disturb LBP at pre-1978 homes, child care facilities, and schools must be certified & follow specific work practices to prevent lead contamination. Dangerous work practices banned.



EPA REQUIREMENT TO REDUCE LEAD HAZARD RISKS & USE LEAD SAFE WORK PRACTICES

- ✘ EPA requires that firms performing renovation/repair/painting projects that disturb lead-based paint in pre-1978 homes, child care facilities and schools be certified by EPA (or delegated State or tribe) and that they use certified renovators trained by EPA-approved training providers in lead-safe work practices.
- ✘ Individuals can become certified renovators by taking an eight-hour training course from EPA-approved training provider.



EPA REQUIREMENT TO REDUCE LEAD HAZARD RISKS & USE LEAD SAFE WORK PRACTICES

- ✘ Effective 4/22/2010, any contractor compensated for renovation/repair/painting activities at pre-1978 housing or child-occupied facilities must be trained and certified in lead-safe work practices; must be certified either by EPA (or State or tribe having program delegation);
- ✘ Rule applies to builders/painters/plumbers/ electricians or any business receiving compensation for renovation work (such as hardware stores that sub-contract work);
- ✘ Rule applies if it involves “more than six sq. feet on the inside” or “more than 20 sq. feet on the outside.”



SPECIFIC WORK PRACTICES NOW PROHIBITED BY FEDERAL EPA REGULATION

- ✘ Avoid renovation methods that generate large amounts of lead-contaminated dust. There is no way to fully eliminate dust, but some methods generate less dust. Contractors may use various methods to reduce dust generation.
- ✘ Certain methods generate so much lead-contaminated dust that their use is *specifically prohibited by federal regulation*:
 - ✘ (a) Open flame burning or torching;
 - ✘ (b) Sanding, grinding, planing, needle gunning, or blasting with power tools and equipment not equipped with a shroud and HEPA vacuum attachment;
 - ✘ (c) Using heat gun at temperatures $> 1100^{\circ}\text{F}$.



EPA REQUIREMENT TO REDUCE LEAD HAZARD RISKS & USE LEAD SAFE WORK PRACTICES

- ✘ Renovators must comply with new certification, training, pre-renovation notification & lead-safe work practice standards; as part of proper notification, renovators need to provide this pamphlet:
<http://www.epa.gov/lead/pubs/renovaterightbrochure.pdf>
- ✘ EPA Factsheet (January 2010. EPA 325-F-009-005, Office of Enforcement & Compliance Assurance, EPA HQ).
- ✘ <http://www.epa.gov/compliance/resources/newsletters/civil/enfalert/leadpaint.pdf>



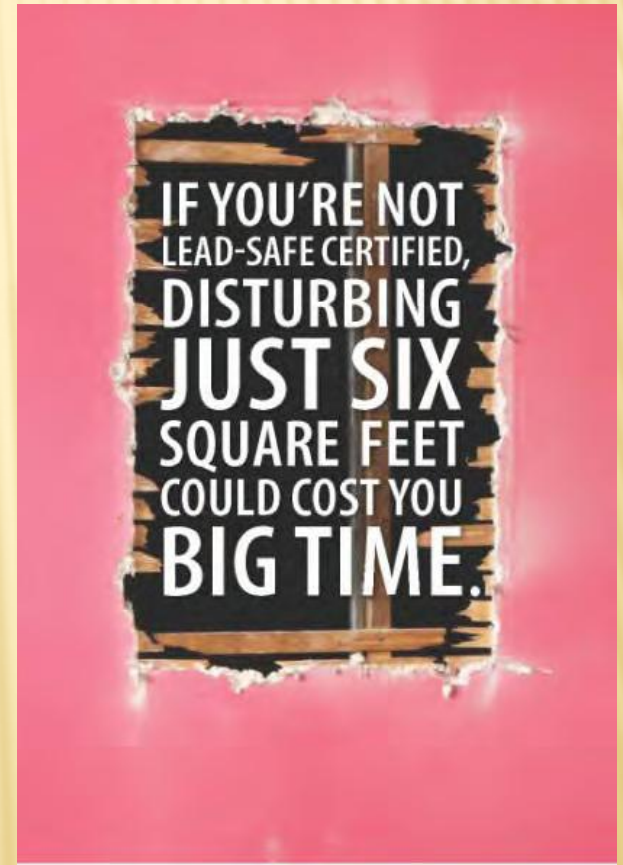
EPA REQUIREMENT TO REDUCE LEAD HAZARD RISKS & USE LEAD SAFE WORK PRACTICES

Trained contractors must:

- post warning signs;
- restrict occupants from work areas;
- contain work areas to prevent dust & debris from spreading;
- provide on-site training in lead-safe work practices to uncertified workers (only one worker per site needs to be certified);
- conduct thorough cleanup & verify that cleanup was effective;
- keep required records.

Program delegation to tribes is possible.

- Suspect possible violations? Contact EPA.
David Tomsovic. 415-972-3858.
Email: tomsovic.david@epa.gov



REPORTING SUSPECTED VIOLATIONS OF EPA'S NEW REQUIREMENT ON LEAD-SAFE WORK PRACTICES

- ✘ Report violation to appropriate to EPA regional office;
- ✘ Protecting environment and health from lead hazards is a joint responsibility. To report suspected environmental violations: www.epa.gov/tips
- ✘ Region IX Federal Renovation, Repair, and Painting (RRP) Rule Tip & Complaint Form
- ✘ <http://www.epa.gov/region9/toxic/lead/tips-complaints.html>



LEAD IN DRINKING WATER & OTHER EXPOSURE ROUTES

- ✗ Children exposed to lead from many sources (lead-based paint, gasoline, solder, consumer products, toys, toy jewelry, imported candy) via several paths (air, food, water, dust, soil);
- ✗ Lead-based paint: most prevalent and dangerous high-dose source of lead exposure for young children;
- ✗ Drinking Water: Lead pipes placed in homes < 1930 often contain lead, released in drinking water as it passes through old pipes. @ 10 to 20 % of a non-lead poisoned child's total lead contact comes from drinking water.
- ✗ <http://www.cdc.gov/nceh/lead/tips/water.htm>



EXPOSURE ROUTES

- ✖ Candy:
<http://www.cdc.gov/nceh/lead/tips/candy.htm>
- ✖ Toys & Toy Jewelry:
<http://www.cdc.gov/nceh/lead/tips/toys.htm>
- ✖ Prevention Tips from US Centers for Disease Control: <http://www.cdc.gov/nceh/lead/tips.htm>
- ✖ Note: list is partial in identifying sources of exposure to lead.



EPA TRIBAL LEAD GRANTS: PREVENTING CHILDHOOD LEAD POISONING IN INDIAN COUNTRY

- ✘ EPA's tribal partners in AZ, CA & NV have achieved significant progress in preventing childhood lead poisoning in Indian Country; success stories of Region IX tribes: <http://www.epa.gov/region9/toxic/lead/lead-child-indiancountry/>
- ✘ 2000-2011: Region IX awarded TSCA grants to 16 federally-recognized tribes/consortia in AZ, CA & NV.



EPA TRIBAL LEAD GRANT FUNDING: PREVENTING CHILDHOOD LEAD POISONING IN INDIAN COUNTRY

- ✘ Grants under U.S. Toxic Substances Control Act (TSCA) authorize EPA funding to enable federally-recognized tribes /consortia in achieving three key objectives:
- ✘ 1) inform tribal members and tribal community residents on health hazards from lead especially health risks from exposure to lead-based paint/LBP hazards;
- ✘ 2) screen children between 18 -72 months old of age to identify elevated blood lead levels;
- ✘ 3) conduct lead hazard evaluations at pre-1978 tribal housing/ pre-1978 child-occupied facilities to identify potential LBP hazards.



REGION IX TRIBAL LEAD GRANTEES: PREVENTING CHILDHOOD LEAD POISONING IN INDIAN COUNTRY

- × Big Valley Rancheria Tribes
- × Fallon Paiute-Shoshone Tribe Community
- × Graton Rancheria
- × Hopi Tribe
- × Inter-Tribal Council of AZ
- × Pyramid Lake Paiute Tribe
- × South Fork Band
- × Yavapai-Prescott Tribe
- Colorado River Indian
- Gila River Indian
- Hoopa Valley Tribe
- Hopland Band
- North Fork Rancheria
- Soboba Band
- Washoe Tribe
- Yurok Tribe



PREVENTING CHILDHOOD LEAD POISONING IN INDIAN COUNTRY: TRIBAL SUCCESS STORIES

- ✘ Region IX tribes have many '*success stories*' on preventing childhood lead poisoning in Indian Country:
- ✘ Conducting lead-based paint hazard evaluation at tribal HeadStart building that identified potential lead hazards from paint on exterior areas. LBP hazards remediated by tribe to avoid exposure risk to children/staff;
- ✘ Remediating lead hazards in soil at tribal housing area. Soil from sites at housing area (including children's play areas & family gardens) contained hazardous levels of lead. Tribe took action to control access to lead-contaminated areas until soil remediation efforts were undertaken in coordination with EPA/BIA. Lead-contaminated soil safely removed off site.
- ✘ Efforts eliminated potential exposure to LBP hazards and thus possible lead poisoning.



GAP GRANTS: COMPANION TOOL TO PREVENT CHILDHOOD LEAD POISONING IN INDIAN COUNTRY

- ✘ GAP funding covers same key objectives as TSCA tribal lead grants:
- ✘ 1) inform tribal community on health hazards due to exposure to lead especially lead-based paint;
- ✘ 2) screen children between 18-72 months old to identify elevated blood lead levels;
- ✘ 3) conduct lead hazard evaluations at pre-1978 tribal housing/pre-1978 child-occupied facilities.
- ✘ More information: contact EPA Region IX Tribal Program Office (GAP project officer).



EPA HQ'S LEAD WEBPAGE INFORMATION

- + Facts about lead
- + Health effects of lead
- + Where lead is found
- + Where lead is likely to be a hazard
- + How to check your family and home for lead
- + What you can do to protect your family
- + Are you planning to buy or rent a home built before 1978?



EPA HQ'S LEAD WEBPAGE INFORMATION

- + What you can do to protect your family
- + Are you planning to buy or rent a home built before 1978?
- + Renovating, repairing or painting a home, child care facility or school with lead-based paint
- + Other EPA pamphlets on lead



EPA LEAD PAMPHLETS

- + Lead in Your Home: A Parent's Reference Guide (PDF) (67 pp)
- + Testing Your Home for Lead in Paint, Dust, and Soil (PDF) (20 pp)
- + Finding a Qualified Lead Professional for Your Home (PDF) (2 pp)
- + Lead Poisoning and Your Children (PDF) (2 pp)
- + Lead Poisoning and Your Children (en español) (PDF) (2 pp)



EPA LEAD PAMPHLETS

- + Protect Your Family From Lead in Your Home (PDF) (17 pp)
- + Protect Your Family From Lead in Your Home (en español) (PDF) (8 pp)
- + Ten Tips to Protect Children from Pesticide and Lead Poisonings around the Home (PDF) (2 pp)
- + Tri-Fold Brochure for Building Managers (PDF) (2 pp)
- + Lead and a Healthy Diet (PDF) (10 pp)



EPA REGION IX CONTACT

- ✘ Tribal Lead Poisoning Prevention (Grants, Technical Assistance, General Information): *David Tomsovic*, Toxics Office, Communities & Ecosystems Division, 415-972-3858, tomsovic.david@epa.gov
- ✘ *Thank you! Please share this information widely; we hope it assists your tribe, tribal communities & tribal partners to protect health of children & residents in Indian Country.*

