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Pellets in the Appendix

Ibrahim Zardawi, M.D., and Eranga Siriweera, M.D.

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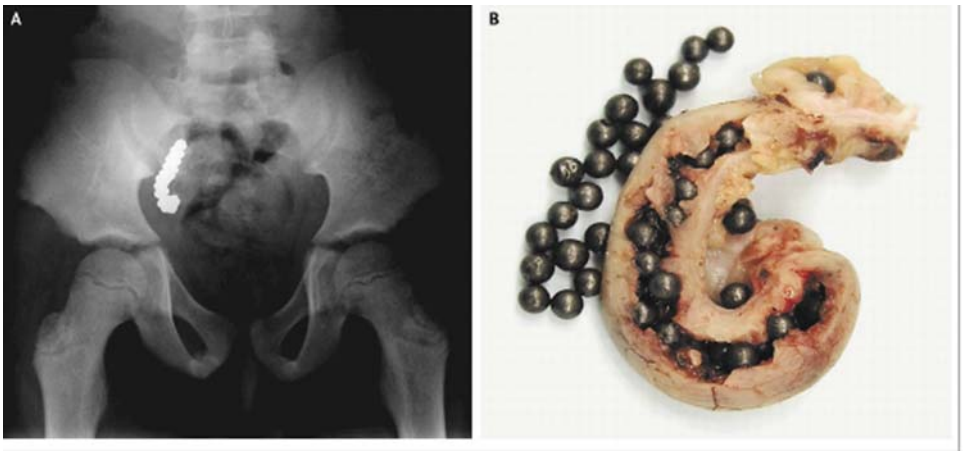

An 8-year-old hyperactive boy was admitted to the hospital after having been found to have elevated blood lead levels, ranging from 17.4 to 27.4 µg per deciliter (reference range, <10) over a period of 2 years. An abdominal radiograph revealed large numbers of small, hyperdense foci in the right lower quadrant. The entire family reported that they regularly ate geese that were killed with lead pellets from a shotgun, and the children reported that they had been eating the pellets as part of a game to make them disappear. The patient and his siblings underwent bowel washout. A follow-up radiograph of the patient revealed that pellets were still present in the gastrointestinal tract, in either the cecum or the appendix (Panel A). Laparoscopic appendectomy was performed. The appendix weighed 27.5 g (normal weight, 4 to 5 g), measured 55 mm in length, and had an average external diameter of 7 mm with a wall thickness of 2 mm. A total of 57 lead pellets were recovered from the lumen (Panel B). Microscopical examination of the appendix showed minor changes with a focus of submucosal calcification and fibrosis. No acute inflammation was observed.

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Budget Cuts Adversely Affect More than Half of State and Local Lead Poisoning Prevention Programs Nationwide

COLUMBIA, MD (August 1, 2013) – A new survey conducted by the National Center for Healthy Housing (NCHH) documents the significant impact of federal public health funding cuts on Healthy Homes and Childhood Lead Prevention Programs, including the elimination of 57 percent of programs nationwide. The survey outcomes fuel NCHH's resolve to persist in efforts that restore federal funding to these programs.

In May 2012, Congress reduced the budget for the U.S. Centers for Disease Control and Prevention (CDC) Healthy Homes and Childhood Lead Poisoning Prevention Programs from $29 million in FY11 to $2 million in FY12, effectively eliminating grants to state and local health departments for lead poisoning prevention.

As a response to the budget cuts, NCHH conducted an online survey to gauge the impact of the loss of CDC funding for Healthy Homes and Childhood Lead Poisoning Prevention Programs. This survey demonstrates how the slashing of CDC's budget for Healthy Homes and Childhood Lead Poisoning Programs has reverberated across the country, forcing state and local health departments to cut well regarded and effective services that are essential to public health.

The analysis of the online survey is based on responses from a total of 22 state programs and shows that more than half of the positions funded by CDC grants have been either eliminated or shifted to other duties due to the federal budget cuts. The positions lost include those focused on preventing lead poisoning, providing services to children who have already been exposed to lead and enforcing state and local laws that require homes to be made lead-safe.

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Budget Cuts Nationwide (continued)

The loss of the safety net provided by this vital public health work force is a serious concern for state and local program administrators. States and local programs are competing for alternative sources of funding and reimbursement for these services, with varying degrees of success.

"Public health departments have prevented childhood lead poisoning for over two decades. They have come to the aid of families with children who have been exposed to lead and also work to prevent the disease," said Rebecca Morley, executive director of National Center for Healthy Housing. "Our survey revealed that as a result of federal cuts to these programs, the public health workforce has been severely impacted. Americans will receive fewer services in the area of lead prevention."

Low levels of lead exposure have been linked with negatively impacting school performance and test scores, as well as serious health-related issues like physical and cognitive ability. Lead exposure without early intervention by state and local health departments often results in increased long-term costs and complications to communities and families in health, education, and emergency services.

The most vulnerable populations are also the most likely to suffer from the lack of services available to prevent and track lead exposure, additionally compounding the potential services needed to resolve the issues in the future. A Morbidity and Mortality Weekly Report released in April 2013 showed children belonging to families with a low income (130 percent of poverty level) are more than three times as likely as children in higher income families to have high blood lead levels. Non-Hispanic black children are more than twice as likely as non-Hispanic white children to have blood lead levels at or above 5 µg/dL. The report shows long-standing disparities persist and resources are needed in areas and communities where children are most at risk.

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Salem, Mass. Contractor Faces Penalty for Violating Lead Renovation Rule at Kittery, Maine Site

News Release U.S. Environmental Protection Agency New England Regional Office

(Boston, Mass. – Aug. 12, 2013) – James J. Welch & Co., Inc., based in Salem, Mass., faces a penalty of $28,125 for allegedly violating a requirement designed to protect children from exposure to lead-based paint during painting and other renovation activities.

The alleged violations occurred during a renovation project at the former Frisbee School in Kittery, Maine, at which JJ Welch was the primary contractor. The Kittery site was, at the time of the renovation, a child-occupied facility subject to EPA's Renovation, Repair and Painting (RRP) Rule.

The violation was brought to EPA's attention via an anonymous tip, after which EPA and Maine Dept. of Environmental Protection performed an inspection of the site in Feb. 2012. Based on the inspection, EPA determined that JJ Welch did not ensure that a company hired as a subcontractor to replace windows at the school complied with the required work practice requirements of the RRP Rule, including failure to assign a certified renovator to the work site; failure to cover ground with plastic sheeting; and failure to contain waste from the renovation activity.

EPA's RRP Rule is designed to prevent exposure to lead-based paint and/or lead-based paint hazards. The rule requires individuals performing renovations for compensation at most pre-1978 housing and child-occupied facilities to be properly trained. There are certification and training requirements for individual renovators and firms performing renovations to ensure that safe work practices are followed during renovations.

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Salem, Mass. Contractor Faces Penalty for Violating Lead Renovation Rule at Kittery, Maine Site (continued)

The rule became effective on April 22, 2010 and allows for the assessment of penalties that may reach up to a maximum of $37,500 per violation per day.

Infants and young children are especially vulnerable to lead paint exposure, which can cause developmental impairment, reading and learning disabilities, impaired hearing, reduced attention span, hyperactivity and behavioral problems. Adults with high lead levels can suffer difficulties during pregnancy, high blood pressure, nerve disorders, memory problems and muscle and joint pain.

More information:

- Lead paint RRP Rule (http://www.epa.gov/lead/rrp/index.html)
- Why lead is a health hazard (http://www.epa.gov/lead/learn-about-lead.html)

Submitted by:

Edward C. Knapik, RS
Assistant Sanitarian
Newtown Health District

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Nigeria: Doctors treat lead-poisoned children

by MICHELLE FAUL

August 3, 2013 .LAGOS, Nigeria (AP) — The Nigerian village that suffered one of the world's worst recorded incidents of lead poisoning is now habitable and doctors can start treating more than 1,000 contaminated children, a doctor and a scientist from two international agencies said Friday.

For some, it already is too late to reverse serious neurological damage, said Dr. Michelle Chouinard, Nigeria country director for Doctors Without Borders, told The Associated Press on Friday. Some children are blind, others paralyzed and many will struggle at school with learning disabilities, she said.

Doctors Without Borders uncovered the scandal in 2010 but nothing was done until this year about the worst-affected village, Bagega, because the federal government did not provide a promised $3 million, the group said.

The poisoning caused by artisanal mining from a gold rush killed at least 400 children, yet villagers still say they would rather die of lead poisoning than poverty, environmental scientist Simba Tirima told the Associated Press Friday. Villagers make 10 times as much money mining as they do from farming in an area suffering erratic rainfall because of climate change, he said.

"That's a big, big worry. But I am joyful that for the kids who will be born in Bagega, we have at least removed one of the major strikes against them because they have so many strikes against them — nutritional problems, diseases ..." said Tirima, who is the field operations director in Nigeria for TerraGraphics International Foundation.

The Moscow, Idaho-based foundation advised Nigeria's northern Zamfara state government and oversaw the 5 ½-month cleanup, or remediation, of Bagega that ended two weeks ago.

There, people were exposed to mindboggling rates of lead contamination: Some residential soil with up to 35,000 parts per million of lead and the processing area with over 100,000 parts per million, Tirima said. The United States considers 400 parts per million safe for residential soil.

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Nigeria: Doctors treat lead-poisoned children (continued)

At the peak of the gold rush, Tirima said, more than 1,000 itinerant miners and followers were camped around the village — deep in the countryside, beyond the reach of paved roads and electricity and quite cut off in the rainy season when dirt roads become impassable.

The entire human population of 6,000 to 9,000 was exposed, including some 1,500 children under the age of 5. Human Rights Watch said the death toll of 400 was only an estimate as villagers initially tried to hide the deaths, fearing the government would stop their illegal mining. The group said it was the worst epidemic of its kind in modern history.

The government released money for the cleanup in February, Doctors Without Borders began prescreening in March and found that nearly every one of 1,010 children tested need therapy, Chouinard said. Of them, 267 are severely contaminated and will get chelation — where medication binds the lead to a child's blood and helps them to eliminate it faster from their system.

All the children had more than the international standard maximum of 10 micrograms per deciliter of lead in their blood. Some had as much as 700 micrograms per deciliter, she said. The children will have to be treated for one to two years, she said.

The more basic methods used to get at gold helped cause the poisoning. Some women used hammers to beat open rock ore. Others used some of the 60 grinding mills at a processing area adjacent to the village and water reservoir, Tirima said.

Many took the rocks that carried high concentrations of lead into their homes for processing. The poisoning was facilitated because the particular lead compounds are very toxic and easily absorbed into the body, unlike other forms of lead, Tirima explained. His TerraGraphics Foundation has trained dozens of Nigerians to clean up any future contamination.

Government officials initially reacted by trying to enforce a ban on illegal mining. When that did not work, they promised to find other sources of income for villagers, but nothing has happened in a country where corruption is endemic.

Tirima pointed to mounting evidence linking lead poisoning to crime waves and said he fears for the community when their poisoned children grow up.