NIOSH UPDATE

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NIOSH POSTS NEW DATABASE RESOURCE ON RATES, TRENDS IN ELEVATED BLOOD LEAD LEVELS

The National Institute for Occupational Safety and Health (NIOSH) today posted a new interactive, Web-based resource to help users identify, monitor, and address harmful overexposures to lead. The web page provides data on cases of elevated levels of lead in the blood of adults, and trends in those cases over time. It also allows users – particularly occupational and environmental health professionals and researchers – to create customized data products from those data.

The new Web page can be found at
wwwn.cdc.gov/niosh-survapps/ables/default.aspx.

The new resource draws from cases reported by 40 states under the NIOSH-funded Adult Blood Lead Epidemiology and Surveillance (ABLES) program. The resource includes:

- An interactive database from which the user can create customized charts and tables of data for the years 2002 through 2008, using such parameters as year, state, industry sector, age group, gender, the type of exposure (occupational or not) that led to an elevated blood lead level, and blood lead levels of 25 micrograms of lead per deciliter of blood (*u*g/dL) and 40 *u*g/dL.

- Charts showing the incidence and prevalence rates of adults, ages 16 or older, with blood lead levels at or above 25 micrograms of lead per deciliter of blood, from 1994 through 2005. Until 2009, the ABLES reporting system used 25 *u*g/dL as a benchmark for reporting cases, based on the U.S. Centers for Disease Control and Prevention's (CDC) choice of that level as a benchmark at or above which CDC recommended public health intervention to prevent adverse health effects. The benchmark now used by CDC is 10 *u*g/dL, and the new NIOSH web resource will be updated to include cases at or above that benchmark. The incidence rate is the rate of new cases among a given population during a defined time period. The prevalence rate is the rate of all cases among a given population during a defined time period.

- A pie chart illustrating the percentages of reported elevated blood lead cases, 2002-2008, according to specific industry sectors. Manufacturing accounts for the preponderance of cases, 71 percent.

Elevated blood lead levels are a benchmark for lead exposures that pose risks for serious impairment and damage to the body's nervous, hematologic, reproductive, renal, cardiovascular, and gastrointestinal systems. The majority of elevated blood lead cases are work-related.

(more)

National prevalence rates of elevated blood lead cases decreased by 47 percent from 1994 to 2005. However, cases still persist, and recent research suggests that adverse health effects are associated even with lower lead exposures.

"With this new Web page, we are pleased to make data from the ABLES program more accessible, more understandable, and more useful to our partners as a tool for protecting workers' health," said NIOSH Director John Howard, M.D. "Although the U.S. has made great progress in controlling work-related lead exposures since the enactment of the Occupational Safety and Health Act, we must remain vigilant in recognizing and addressing this occupational hazard."

The NIOSH-funded ABLES program began in 1987 as a program to build states' capacity to initiate, expand, or improve adult blood lead surveillance programs which can accurately measure trends in adult blood lead levels and which can effectively intervene to prevent lead over-exposures. More information on ABLES can be found at **http://www.cdc.gov/niosh/topics/ABLES/ables.html** .

Lead is used in many industries, including construction, mining, and manufacturing. In each of these industries, workers are at risk of being exposed to lead, by breathing it in, ingesting it, or coming in contact with it. It is often used to make batteries, alloys, and other metal products. Years ago, lead was also used regularly in paint, ceramics, caulk, and pipe solder among other things. Because of its potential health problems, the amount of lead used in these products today has lessened or has been removed.

More information about the health effects of lead, types of applications, and ways to reduce occupational exposures can be found at **http://www.cdc.gov/niosh/topics/lead/**.