

## Understanding the US CDC's 'Reference Value' for Blood Lead Levels in Children

17 April 2013

Recent media reports appear to have fundamentally misunderstood the US Centers for Disease Control and Prevention's (CDC) adoption of a Reference Value for lead in blood for children aged from one to five years and a subsequent CDC report based on the Reference Value. The International Lead Association (ILA) is issuing this statement, based on information available from the CDC, to clarify the current information being reported.

### **How have media reports misunderstood CDC's Reference Value?**

The CDC report estimated that 535,000 US children (approx. 1 in 38) aged 1 to 5 have levels of lead in their blood equal to or greater than CDC's Reference Value of 5 micrograms of lead per deciliter of blood (5  $\mu\text{g}/\text{dL}$ )<sup>i</sup>. Some media have mistakenly reported that 1 in 38 US children aged 1-5 years have lead poisoning, based on CDC's Reference Value. These reports are inaccurate. The CDC does not equate its Reference Value with 'lead poisoning'. Rather, the Reference Value is intended to help proactively "identify high-risk childhood populations and geographic areas most in need of primary prevention" so steps can be taken to avoid further lead exposure (e.g. lead paint abatement)<sup>ii</sup>. The Reference Value of 5  $\mu\text{g}/\text{dL}$  is nine times lower than the blood lead level for which CDC recommends medical intervention (i.e. greater than or equal to 45  $\mu\text{g}/\text{dL}$ )<sup>iii</sup>.

### **What has been the trend in childhood blood lead levels?**

The same CDC report that estimated the number of US children with blood lead levels at or above the Reference Value also stated that "substantial progress has been made over the past four decades in reducing the number of children with elevated blood lead levels (BLLS)," noting that the percentage of children aged 1-5 years with blood lead levels at or above 10  $\mu\text{g}/\text{dL}$  has decreased from 88% to 0.8% over this period, with the greatest reductions occurring "among children in racial/ethnic and income groups that historically were most likely to have BLLs greater than or equal to 10  $\mu\text{g}/\text{dL}$ ."

### **Will the numbers of children included in the Reference Value decrease if the levels of lead in blood are reduced in the general population?**

No. The Reference Value is pegged to the upper 97.5<sup>th</sup> percentile of the US blood lead level distribution for children aged 1-5 years. In other words, as blood lead levels continue to decrease, the Reference Value will be adjusted downward so that it continues to be exceeded by 2.5% of the population in this age group. Thus, the number of children with blood lead values in excess of the Reference Value will always be on the order of 500,000 or more.

## How can people find out more about CDC's recommendations for childhood blood lead levels?

The CDC has produced a factsheet with advice for parents.

<http://www.cdc.gov/nceh/lead/ACCLPP/Lead Levels in Children Fact Sheet.pdf>

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### Notes to editors

#### About the ILA

The International Lead Association is a membership body that supports companies involved in the mining, smelting, refining and recycling of lead. The ILA represents the producers of about 3 million tonnes of lead and almost two thirds of lead production in the western world.

With offices in the UK and USA the ILA provides a range of technical, scientific and communications support and is focused on all aspects of the industry's safe production, use and recycling of lead and helps funds bodies such as the International Lead Management Center and the International Lead Zinc Research Organization. Visit [www.ila-lead.org](http://www.ila-lead.org)

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<sup>i</sup> CDC Morbidity and Mortality Weekly Report 62(13); 245-248 (Apr. 5, 2013), "Blood Lead Levels in Children Aged 1–5 Years — United States, 1999–2010," available at [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6213a3.htm?s\\_cid=mm6213a3\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6213a3.htm?s_cid=mm6213a3_w).

<sup>ii</sup> CDC Response to Advisory Committee on Childhood Lead Poisoning Prevention Recommendations in "Low Level Lead Exposure Harms Children: A Renewed Call of Primary Prevention" at 7 (June 7, 2012), available at <http://www.cdc.gov/nceh/lead/ACCLPP/CDC Response Lead Exposure Recs.pdf>

<sup>iii</sup> CDC Fact Sheet, "Blood Lead Levels in Children: What do parents need to know to protect their children?", available at <http://www.cdc.gov/nceh/lead/ACCLPP/Lead Levels in Children Fact Sheet.pdf>.