



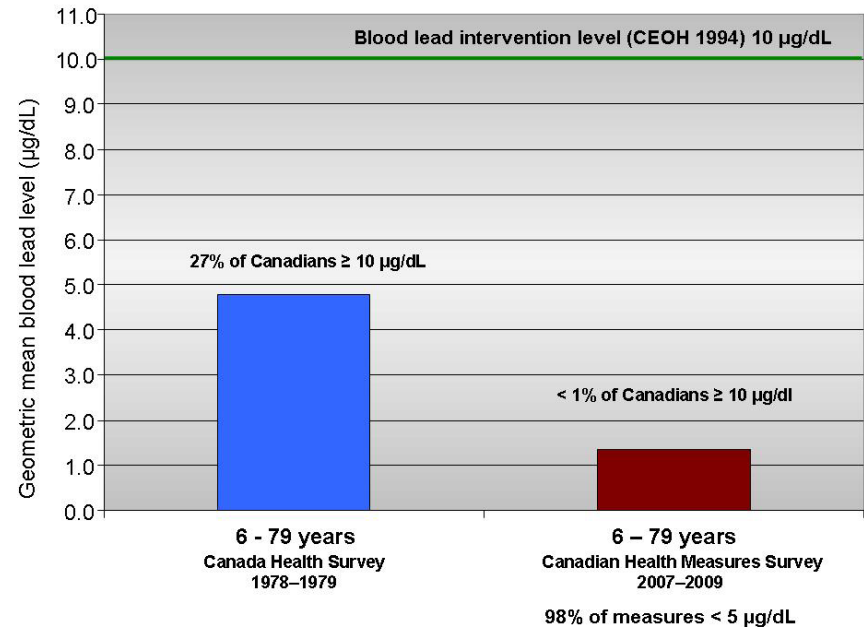
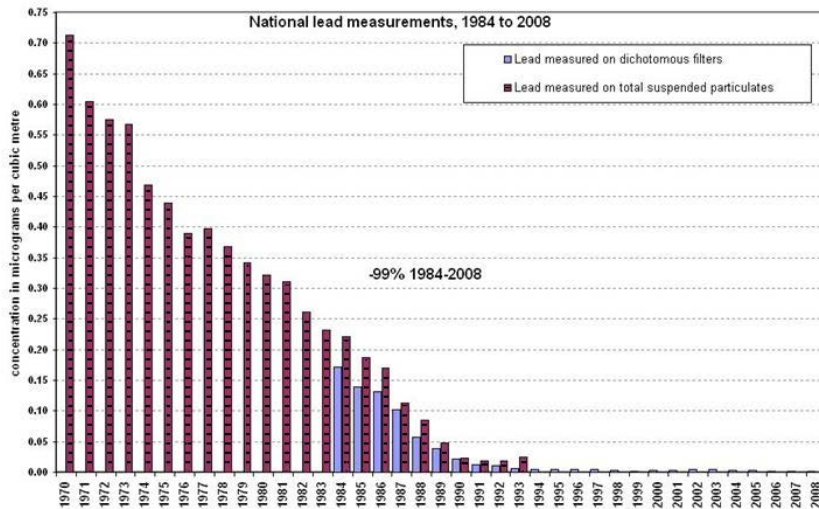
Managing Human Health and Exposure to Leaded Gasoline: A Good News, Bad News Story

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March 2014



Good news!

Over the last 30 years, lead levels in ambient air are down and average blood lead levels in Canadians have dropped



Bad news: No safe level of exposure to lead

Health Canada 2013: *Health effects are occurring below 10 µg/dL. There is sufficient evidence that BLLs below 5 µg/dL are associated with adverse health effects. Health effects have been associated with BLLs as low as 1-2 µg/dL, levels that are present in Canadians, although there is uncertainty associated with effects observed at these levels.*

US Centres for Disease Control 2012: *Adverse health effects of BLLs less than 10 µg/dL in children extend beyond cognitive function to cardiovascular, immunological, and endocrine effects. The absence of an identified BLL without deleterious effects combined with the evidence that these effects...appear to be irreversible, underscores the critical importance of primary prevention.*

German Human Biomonitoring Commission 2010: *It is not possible to identify a threshold BLL below which there are no cognitive deficits.*

World Health Organization 2010: *It is not possible to establish a new .. tolerable intake that would be health protective.*

US EPA National Ambient Air Quality Standard for Lead 2008: *There is now no recognized safe level of Pb in children's blood and studies appear to show adverse effects at ...Pb levels as low as 2 µg/dL*



Avgas: 17% of Canadian anthropogenic atmospheric lead emissions

Canadian atmospheric lead emissions in 2009

~260 tonnes (EC 2011)

