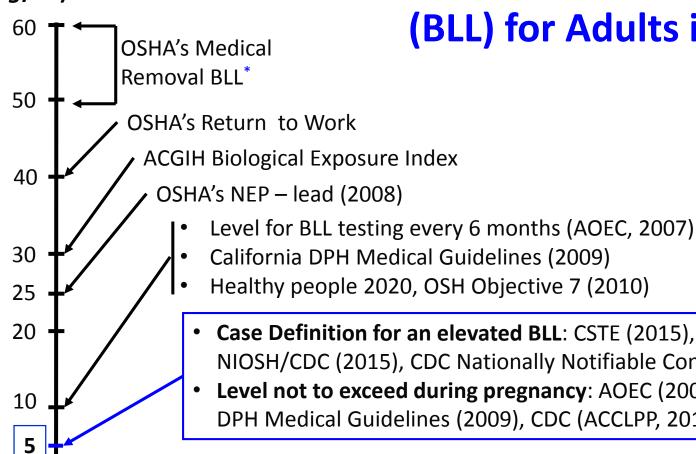
## **Blood lead concentration** $(\mu g/dL)$

## **Reference Blood Lead Levels** (BLL) for Adults in the U.S.



- California DPH Medical Guidelines (2009)
- Healthy people 2020, OSH Objective 7 (2010)
- Case Definition for an elevated BLL: CSTE (2015), ABLES/ NIOSH/CDC (2015), CDC Nationally Notifiable Condition (2016)
- Level not to exceed during pregnancy: AOEC (2007), California DPH Medical Guidelines (2009), CDC (ACCLPP, 2010)

2009-2010 average BLL among adults (National Report on Human Exposure to Environmental Chemicals)

\*The OSHA Lead Standards state that the examining physician has broad flexibility to tailor protections to the worker's needs.







## Source Documents for Reference Blood Lead Levels in slide 1

- 1. Occupational Safety and Health Administration (OSHA). Lead Standards: http://www.osha.gov/SLTC/lead/
- 2. American Conference of Governmental Industrial Hygienists (ACGIH). Biological Exposure Indices: http://www.acgih.org/Products/beiintro.htm
- 3. OSHA Instruction: National Emphasis Program (NEP) on Lead: http://www.osha.gov/OshDoc/Directive\_pdf/CPL\_03-00-0009.pdf "Inspections will also be conducted in establishments where reported employee blood lead levels were at or above 25 µg/dL"
- 4. Association of Occupational and Environmental Clinics (AOEC). Medical Management Guidelines for Lead-Exposed Adults, Revised 04/24/2007. CSTE Medical Management Guidelines Added October 2013, see Pages 16-17: http://www.aoec.org/documents/positions/ mmg revision with cste 2013.pdf
- 5. Kosnett MJ et al. Recommendations for Medical Management of Adult Lead Exposure. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1849937/
- 6. California Department of Public Health (CDPH) Medical Guidelines for the Lead-Exposed Worker: http://www.cdph.ca.gov/programs/olppp/Documents/ medgdln.pdf
- 7. Department of Health and Human Services. Healthy People 2020 Occupational Safety and Health objective 7 (OSH-7): http://www.healthypeople.gov/2020/topics-objectives/topic/occupational-safety-and-health/objectives and operational definition in http://www.healthypeople.gov/node/5049/data\_details

- 8. Council of State and Territorial Epidemiologists (CSTE) Position Statement 15-EH-01. Public Health Reporting and National Notification for Elevated Blood Lead Levels.
  - http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/2015PS/2015PS Final/15-EH-01.pdf
- Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH), Adult Blood Lead Epidemiology and Surveillance (ABLES) case definition for an elevated blood lead level: http://www.cdc.gov/niosh/topics/ABLES/description.html
- 10. CDC. National Notifiable Diseases Surveillance System (NNDSS). Nationally Notifiable Non-Infectious Conditions. Lead, Elevated Blood Levels 2016 Case Definition: http://wwwn.cdc.gov/nndss/conditions/ lead-elevated-blood-levels/case-definition/2016/

11. CDC. Advisory Committee on Childhood Lead Poisoning Prevention

- (ACCLPP): Guidelines for the Identification and Management of Lead Exposure in Pregnant and Lactating Women: http://www.cdc.gov/nceh/lead/publications/LeadandPregnancy2010.pdf These guidelines recommend follow-up activities and interventions beginning at blood lead levels (BLLs)  $\geq 5 \, \mu \text{g/dL}$  in pregnant women. The essential activity in management of pregnant women with BLLs  $\geq 5 \, \mu \text{g/dL}$  is removal of the lead source, disruption of the route of exposure, or avoidance of the lead-containing substance or activity.
- 12. National Toxicology Program (NTP). Health Effects of Low-level Lead Evaluation: http://ntp.niehs.nih.gov/go/36443
- 13. CDC. National Report on Human Exposure to Environmental Chemicals. http://www.cdc.gov/exposurereport/ Updated tables, February 2015: http://www.cdc.gov/biomonitoring/pdf/FourthReport\_UpdatedTables\_Feb 2015.pdf

