## "A Full Picture Of Lead Case Management Efforts In Los Angeles County"





Maternal, Child & Adolescent Health
Programs
Childhood Lead Poisoning Prevention
Program (CLPPP)

Established in 1991



## **Objectives**

At the end of this presentation, the participant will be able to:

- State "case" definition.
- State the two leading sources of lead exposure in Los Angeles County.
- List three commonly reported signs & symptoms.
- List three core public health nursing interventions.



#### **Vision Statement**

# Healthy Lead-Free Environments for Children

## **Healthy People 2020: Environmental Health (EH)**





#### EH Objective 8.2: Reduce the mean blood lead levels in children

Baseline:	1.8 µg/dL was the average blood lead level in children aged 1 to 5 years in 2003–04
Target:	1.6 µg/dL average blood lead level in children aged 1 to 5 years
Target-Setting Method:	10 percent improvement
Data Sources:	National Health and Nutrition Examination Survey (NHANES), CDC/NCHS
Data:	HP2020 data for this objective
	Details about the methodology and measurement of this HP2020 objective



#### **Case Definition**

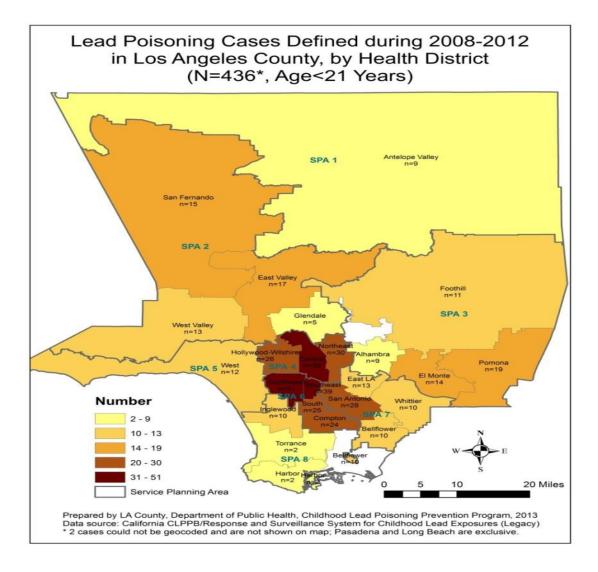
 One venous blood lead level (BLL) greater than or equal to 20 micrograms(mcg)/dL

OR

One venous blood lead level (BLL) 15-19mcg/dL

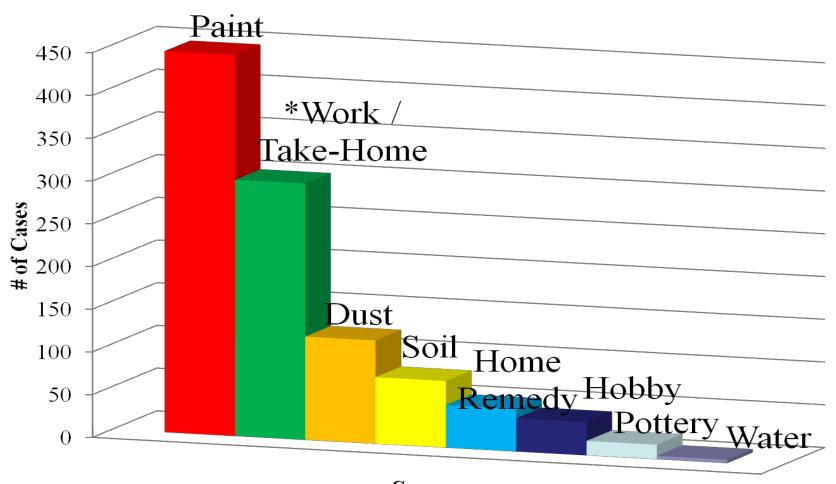


## **Number of Defined Cases by Health District**





## Number of Defined Cases by Source of Lead Exposure, Ages<21, Between 2006 and 2010 (n=535)





## **Commonly Reported Signs and Symptoms**

Client may exhibit signs and symptoms such as:

- Nausea, Vomiting
- Abdominal pain
- Loss of appetite
- Weight loss
- Anemia

- Headache and fever
- Insomnia
- Irritability
- Hyperactivity
- Short attention span





## **Adverse Effects of Lead Poisoning**

- Behavior problems (i.e. school drop outs)
- Low sperm count in male adults
- Miscarriages
- Developmental delays
- Muscle weakness
- Lethargy
- Seizures
- Encephalopathy or death

- Low IQ scores
- Learning disabilities
- Hyperactivity
- Hearing and speech impediment
- Interferes with bone formation and maturation
- Hypertension
- Decrease in visual acuity



Nervous System



## The Public Health Nurse (PHN) Team





#### **PHN Core Interventions**

- Case Management
- Collaboration and Coordination
- Provider Outreach
- Disease Investigation & Case Finding
- Health Teaching & Follow-up
- Surveillance



## **Major Goals of Case Management**



- Identify sources of lead exposure
- Interrupt the pathways of lead exposure
- Ensure a reduction in elevated blood lead levels
- Reduce the effects of lead exposure
- Increase public awareness of lead exposure and lead hazards



## **Collaboration and Coordination**

- Contact the laboratory and the doctor
- Provide information and guidance on case management services
- Refer case for Environmental Health (EH) investigation
- Collaborate with the EH Inspector and primary care provider (PCP) on findings





## **Disease Investigation**

- Conduct a home visit and risk assessment
- Interview the family and gather case information
- Assess patient's health and nutritional status
- Identify household members at-risk
- Make referrals for health services and resources





## Health Teaching, Referral, and Follow-up

 Educate the family on facts, ideas and skills that will increase knowledge and change behavior

Assist families to identify and access necessary

resources





### Surveillance

- Conduct ongoing collection of geographical and patient health information through PHN interview, assessment and documentation
- Share the data, develop laws, policies and power structure that will positively impact childhood lead poisoning prevention



## **Outreach**

- Review blood lead screening requirements, retesting schedules, and medical guidelines with the primary care provider (PCP)
- Inform the PCP of the available trainings and lead awareness materials
- Provide technical support as needed
- Participate in community outreach



## **Case Closure Criteria**

One venous BLL≤ 5mcg/dL.

There must be a consistent decrease in BLLs.

Reference: Matrix: Management Guidelines for Children by Blood Lead Level (BLL)



#### **Website Information**

- California Department of Public Health (2007). Childhood Lead Poisoning Prevention Program.
   Retrieved December 21, 2011 from <a href="http://www.cdph.ca.gov/programs/CLPPB/Pages/healthinfo-CLPPB.aspx">http://www.cdph.ca.gov/programs/CLPPB/Pages/healthinfo-CLPPB.aspx</a>
- California Department of Public Health (2007). Frequent asked questions. Retrieved December 21, 2011 from http://www.cdph.ca.gov/programs/CLPPB/Pages/FAQ-CLPPB.aspx
- California Department of Public Health (2007). Lead poisoning overview. Retrieved December 21, 2011 from http://www.cdph.ca.gov/programs/CLPPB/Pages/LeadPoisoningOverview.aspx
- California Department of Public Health (2007). Management Guidelines on Childhood Lead Poisoning for Healthcare Providers. Retrieved December 21, 2011 from <a href="http://www.cdph.ca.gov/programs/CLPPB/Documents/Provider%20mgmt%20guides.pdf">http://www.cdph.ca.gov/programs/CLPPB/Documents/Provider%20mgmt%20guides.pdf</a>
- Healthy People 2020 (2012). *Environmental health*. Retrieved December 24, 2012 from http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=12
- LA County Department of Public Health- LEAD (2009). Childhood Lead Poisoning Prevention Program. Retrieved December 21, 2011 from <a href="http://publichealth.lacounty.gov/lead/index.htm">http://publichealth.lacounty.gov/lead/index.htm</a>



## Childhood Lead Poisoning Prevention Program Contact Telephone Numbers

Program General Office (800) LA-4LEAD or (800)524-5323

Nursing Case Management Unit (323)869-7195



#### **BINGO**

- One venous BLL greater than or equal to 20 mcg/dL is called what?
- What is the # 1 source of lead exposure in LA county?
- True or False, work/take-home is a source of lead exposure?
- Which is NOT a commonly reported sign & symptom of lead poisoning: nausea, vomiting, weight gain, or irritability?
- Which health district has the highest case count?
- Interrupting the pathways of lead exposure is a major goal of which PHN intervention?
- Contacting the laboratory and the doctor to confirm the blood lead level results is an example of which PHN intervention?



#### **BINGO**

- One venous BLL greater than or equal to 20 mcg/dL is called what? Case Definition
- What is the # 1 source of lead exposure in LA county? Paint
- True or False, work/take-home is a source of lead exposure?
   True
- Which is NOT a commonly reported sign & symptom of lead poisoning: nausea, vomiting, weight gain, or irritability?
   Weight gain
- Which health district has the highest case count?
- Interrupting the pathways of lead exposure is a major goal of which PHN intervention? Case Management
- Contacting the laboratory and the doctor to confirm the blood lead level results is an example of which PHN intervention? Collaboration & Coordination