# Health Outcomes in the Communities Surrounding the Inglewood Oil Field

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# Purpose Community Health Assessment

1. Provide a snapshot of health outcomes in the Inglewood Oil Field communities from data collected by the County or the State

2. Conduct community survey to examine health concerns
   - Health conditions (asthma, respiratory illness)
   - Environmental factors (odors, noise)
   - Input from CAP health working group

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# Community Health Assessment - Five Components

1. Analysis of death rates & patterns
   County death certificates
2. Analysis of rates of low-birth-weight births
   County birth certificates
3. Analysis of rates of birth defects
   CA Birth Defects Monitoring Program
4. Analysis of cancer rates & patterns
   USC Cancer Registry
5. Planned community survey (Summer 2011)

# Census Tracts Near the Inglewood Oil Field

**Legend**

- study area
- 1.5 mile buffer
- selected census tracts

Estimated population:

PEPS 2007 = 152,035
Census 2000 = 146,461

Prepared by LA County Department of Public Health, Office of Health Assessment and Epidemiology, 12/2010

# Race/Ethnicity of the Populations

## Inglewood Oil Field Communities

## Los Angeles County

# Death Rates

From 2000-2007, the yearly death rate was:

731.9 per 100,000 persons in the Oil Field communities;

751.7 per 100,000 persons in LA County

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# Death Rates are Highest in BOTH the Oil Field Communities and LA County for These Conditions

| African American | Asian/ Pacific Islander | Caucasian | Hispanic |
|---|---|---|---|
| All causes<br>Colorectal cancer<br>Coronary heart disease<br>Diabetes<br>HIV<br>Homicide<br>Motor vehicle crashes<br>Pancreatic cancer<br>Stroke | | Emphysema/COPD | Liver disease |

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# Differences in Death Rates Between the Oil Field Communities and LA County

| Death Rates | African American | Asian/ Pacific Islander | Caucasian | Hispanic |
|---|---|---|---|---|
| **Higher** in Oil Field Communities | HIV | | Pneumonia/ Influenza | |
| **Lower** in Oil Field Communities | Coronary heart disease<br>Diabetes<br>Emphysema/COPD<br>Homicide<br>Liver disease<br>Lung cancer<br>Stroke | | | |

# Rates of Low Birth Weight Babies

From 2000-2007, the yearly rate of low birth weight babies was:
7.2 per 100 live births in the Oil Field communities;
7.0 per 100 live births in LA County

# Analysis of Birth Defects Registry

- California Birth Defects Monitoring Program analyzed all birth defects occurring 1990-2002
- No difference in rates for Oil Field communities and LA County for 28 of 29 categories of birth defects
- Babies born in the Oil Field communities between 1990-7 were 1.2 times as likely to be born with a limb defect as babies countywide

(Limb defects are not associated with exposure to petroleum products or benzene)

# Analysis of Cancer Registry

- USC Cancer Surveillance Program analyzed 5 blood-related cancers
  (Some blood-related cancers have been linked to petroleum products)

- Analysis by race/ethnicity to examine potential disparities

- Time period divided into 1972-1999 and 2000-2005 to explore most recent trends

# Analysis of Cancer Registry

- No elevated rates of Acute Myelogenous Leukemia (AML) or 3 other types of blood-related cancers for any race/ethnic group
  - AML is the type of cancer linked to petroleum products (occupational studies)

- From 2000-2005, 2 cases above expected number for Chronic Myelogenous Leukemia (CML) in non-Hispanic Caucasians
  - No studies have found a conclusive link between CML and petroleum products
  - CML associated with high exposure to ionizing radiation, radiation therapy, or a large number of medical x-rays*

*Linet et al. (2006) The Leukemias. 3rd Ed.

# Community Health Survey

- Projected Launch Date: Mid-2011

  (Postponed to better evaluate effects of drilling based on feedback from residents)

- Approximately 1,000 adults living near the Oil Field will be interviewed by telephone

- Will provide a snapshot of current health conditions and quality of life concerns identified in the health working group
  - Health conditions (asthma, respiratory illness, etc.)
  - Odors, noise, traffic, etc.

# Limitations to These Analyses

- Cannot confirm whether oil drilling activities are associated with these health outcomes
- Do not take into account important determinants of health such as:
  - Behavioral risk factors (smoking, physical activity, etc.)
  - Social factors (education, income, access to care, etc.)
  - Environmental exposures (traffic-related pollution, etc.)
- Cannot establish causal relationships between emissions and specific health outcomes

# Resources

- Toxics Epidemiology Program

  http://www.lapublichealth.org/tox

  (213) 738-3220

- South Coast Air Quality Management District (SCAQMD)

  http://www.aqmd.gov