US ERA ARCHIVE DOCUMENT

Use of California Environmental Health Tracking Data to Investigate Environmental Health Disparities

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Division of Environmental and Occupational Disease Control



Funding provided by the CDC Environmental Health Tracking Program

Environmental Health Disparities in California

- Disparities in Environmental Exposures/Hazards (e.g. traffic, pesticides, air pollution) documented by race/ethnicity, income
- Health and Environmental Surveillance can play a key role in identifying localized impacts: but only if neighborhood-level data exist.

Barriers to Local Data

- Small number of health events (e.g. cancer)
- Unstable rates
- Confidentiality Restrictions

Solutions

- Movement towards providing web-based mapping services publically available to display local rates of disease and local environmental data
- Examples:
 - Adverse Reproductive Outcomes
 - Asthma
 - Traffic and Pesticides

www.catracking.com

California Environmental Health Tracking Program EHIB

View: Intranet | Internet

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Last Edited: 11/25/08 Open, edits

CALIFORNIA ENVIRONMENTAL **HEALTH TRACKING** PROGRAM

The California Environmental Health Tracking Program: Improving Public Health With Better Information

TEXT AND DATA ARE PRELIMINARY. FOR REVIEWERS ONLY, PLEASE DO NOT CIRCULATE.

CONTACT US

California Environmental Health Tracking Program

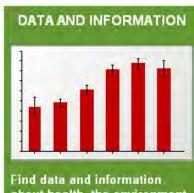
850 Marina Bay Pkwy, P-3 Richmond, CA 94804

(510) 620-3038 E-Mail Us



""DRAFT" PLEASE DO NOT CIRCUIT ATE

The California Environmental Health Tracking Program (CEHTP) is working to improve public health by delivering science-based information on the trends and distributions of diseases, environmental threats, and the often complex relationship between them.





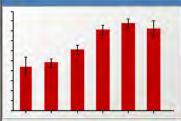


Topics include pesticide use, traffic, and more.



use and understand the data? Review concepts in Tracking, statistics, environmental health, and more.





DATA & INFORMATION

- * How Do I Find Data Here?
- ** Where are the Data From?
- ** How Can I Request Data?

RELATED PAGES

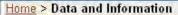
- → Tools & Services
- → Background Concepts

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Data and Information

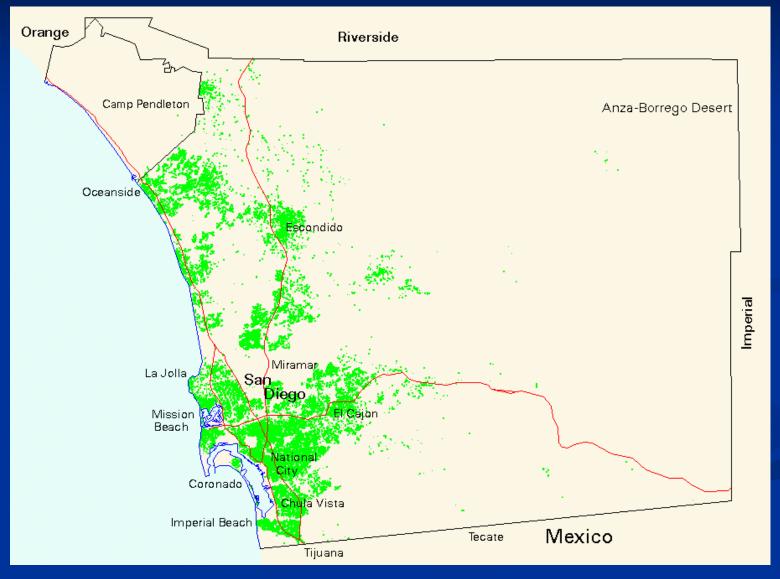
Click on the links below to access data and information about a specific topic area.



Learn more about the data and information CEHTP provides

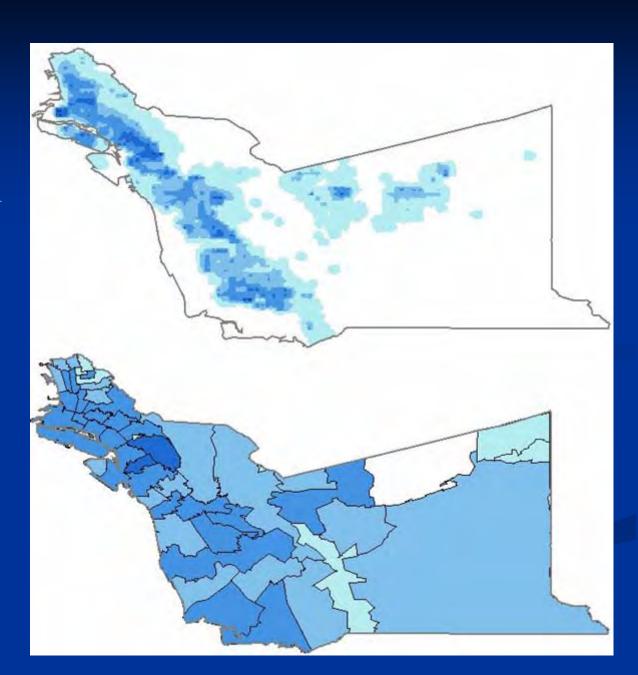
- How to find data and information on the CEHTP website
- Where does CEHTP get the data?
- Requesting data from CEHTP

Mapping of Adverse Reproductive Outcomes, San Diego County – Temporal Patterns (1990 Births)

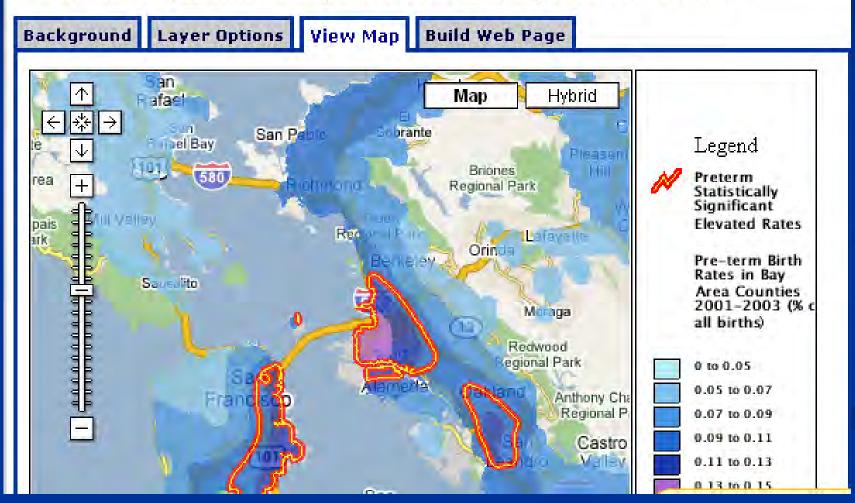


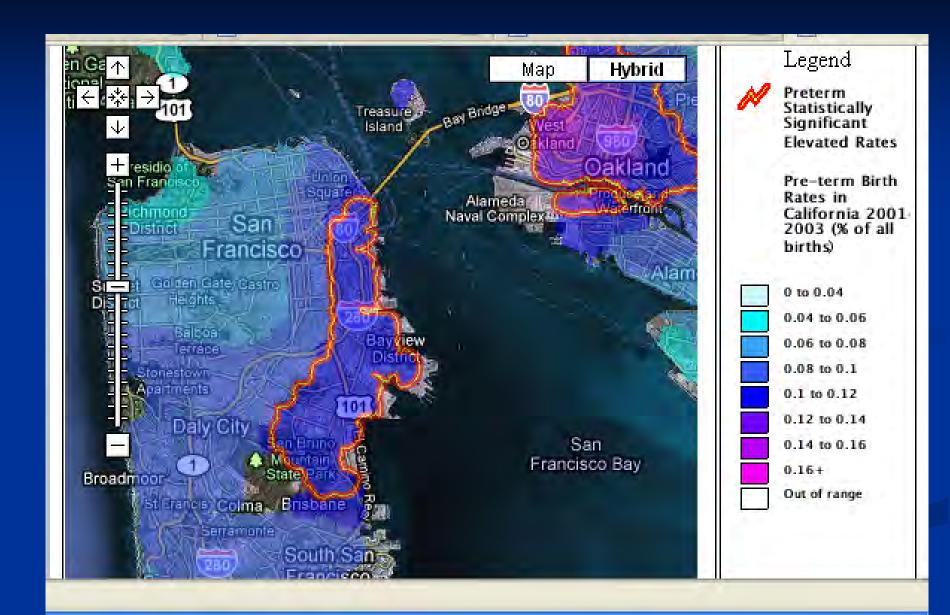
Pre-term birth rate, Alameda County, 2001 (By density estimation and by zip)

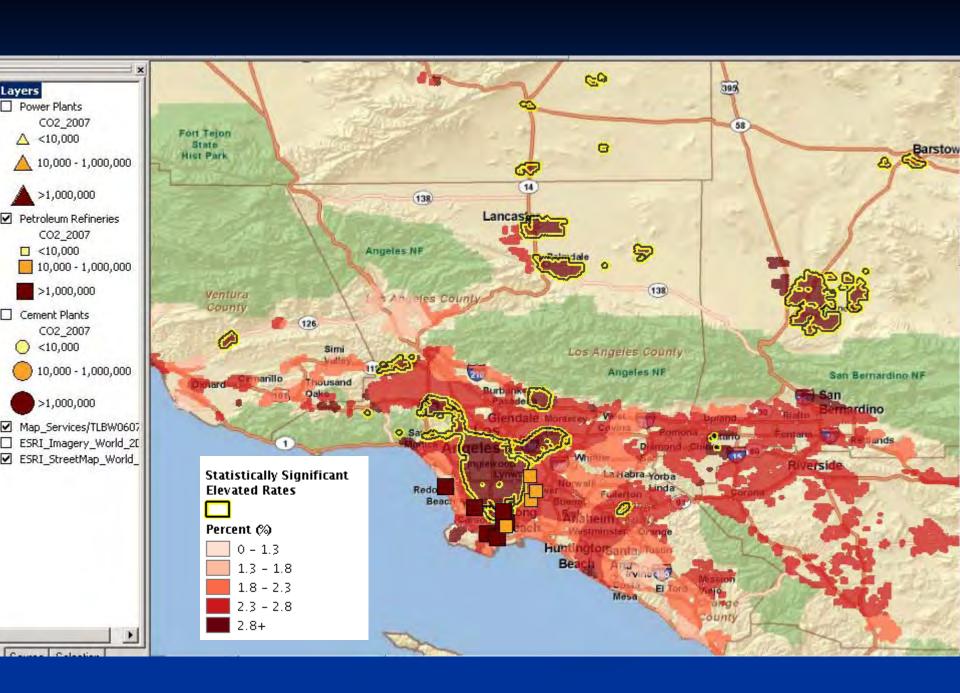




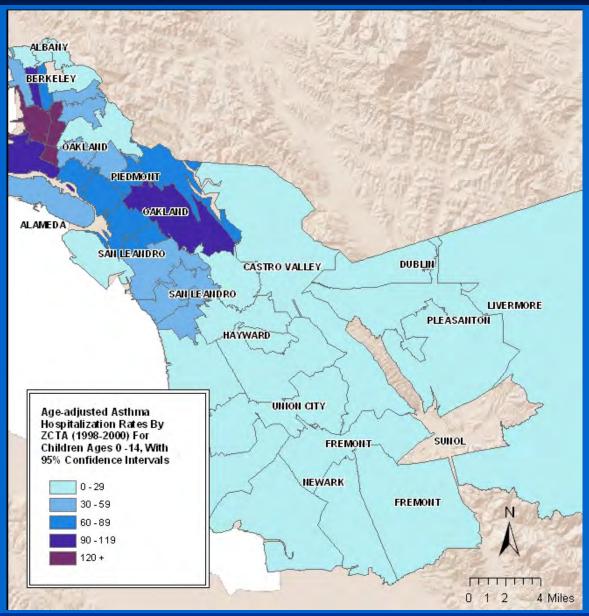
CEHTP Dynamic Map Service Integration Demo



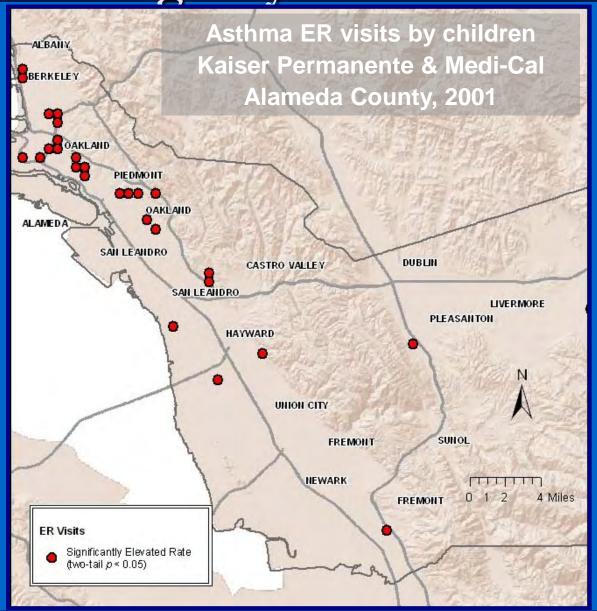




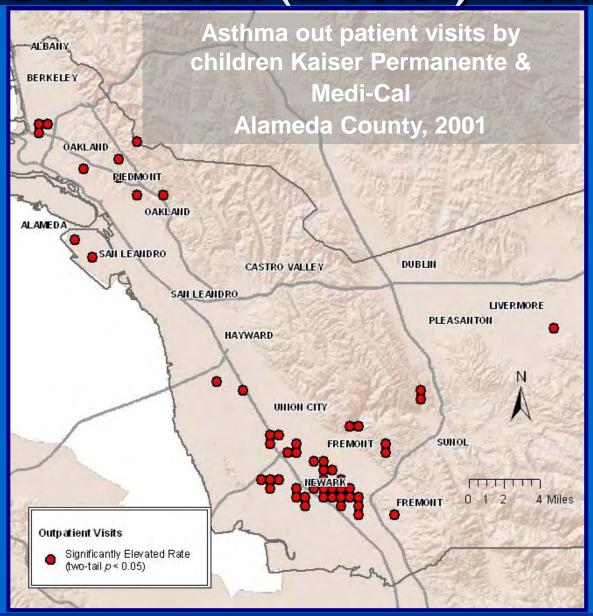
Hospitalization: Asthma As We Knew It



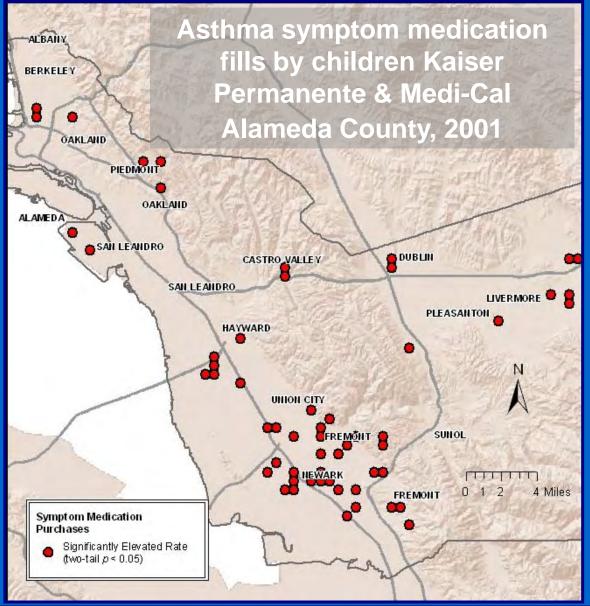
Emergency Room Visits



Out Patient (Doctor) Visits



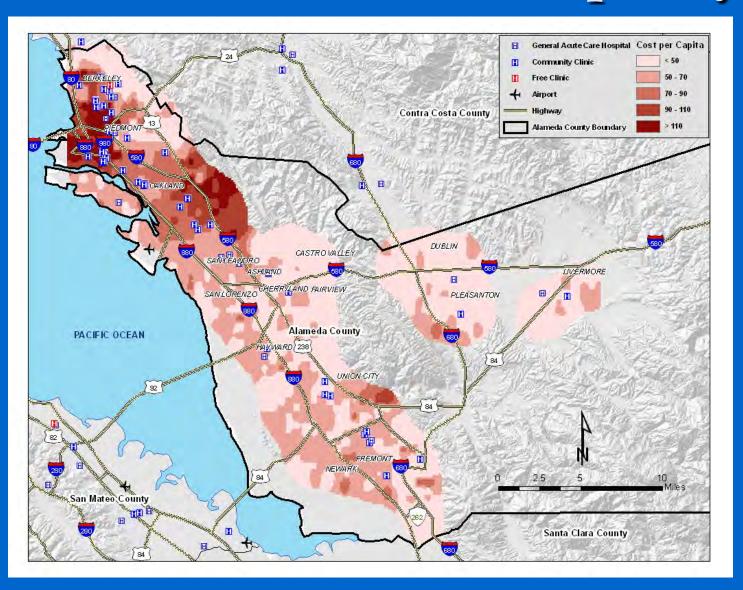
Medication for Asthma Symptoms



Asthma Inequalities (Rates per 1,000)

Poverty rate in census tract:	Low poverty (< 20%)	High poverty (≥ 20%)
ER visits	7.0 (6.4 – 7.6)	11.6 (9.9 – 13.2)
Outpatient visits	155 (151 – 159)	141 (132 – 150)
Symptom med fills	264 (258 – 270)	215 (203 – 226)
Maintenance med fills	158 (153 – 162)	94 (87 – 101)

The Social Cost of Inequality



Buffer calculations: Traffic exposure metrics based on DOT traffic counts

Enter coordinates in Alameda County:

Longitude |-122.2737

Latitude 37.8066

Coordinate system: ONAD83 UTM Zone 10 ONAD83 Decimal Degrees

Radius (in meters) 350

Submit Query

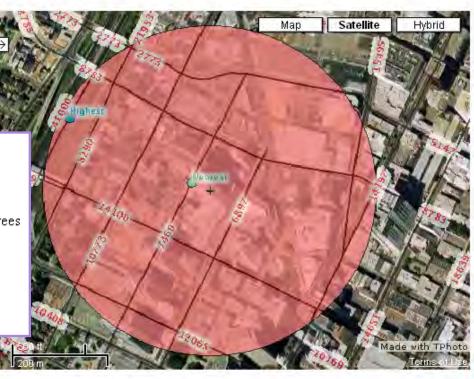
geocode an address

CEHTP Spatial Linkage Demonstration

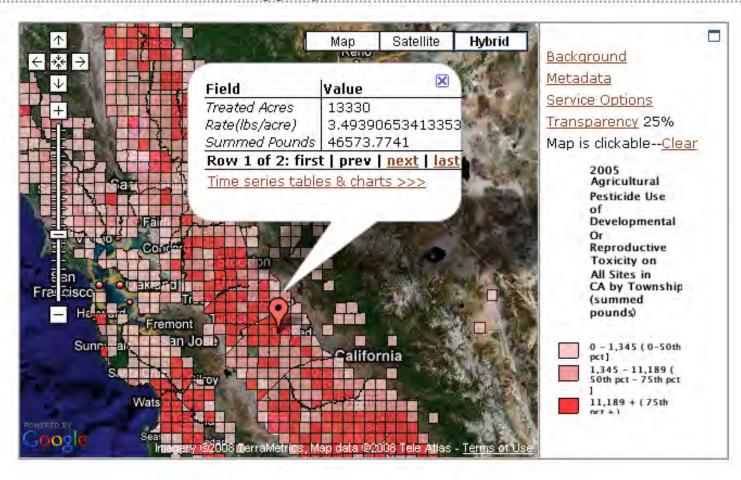
Background Enter Buffer Parameters Spatial Linkage Results		
Metric	Value	
1. (hg) Highest Gauss-adjusted traffic volume segment within buffer (vehicles/day*)		
2. (hu) Unadjusted traffic volume of highest segment within buffer (vehicles/day*)		
3. (hdir) Direction to highest segment within buffer (degrees ccw** from east)		
4. (hdist) Distance to highest segment within buffer (meters)		
5. (ng) Gauss-adjusted traffic volume of nearest segment within buffer (vehicles/day*)		
6. (nu) Unadjusted traffic volume of nearest segment within buffer (vehicles/day*)		
7. (ndir) Direction to nearest segment within buffer (degrees ccw** from east)		
8. (ndist) Distance to nearest segment within buffer (meters)		
9. (sg) Sum of all Gauss-adjusted traffic volumes within buffer (vehicles/day*)	13,294	
10. (su) Sum of all unadjusted traffic volumes within buffer (vehicles/day*)	184,336	

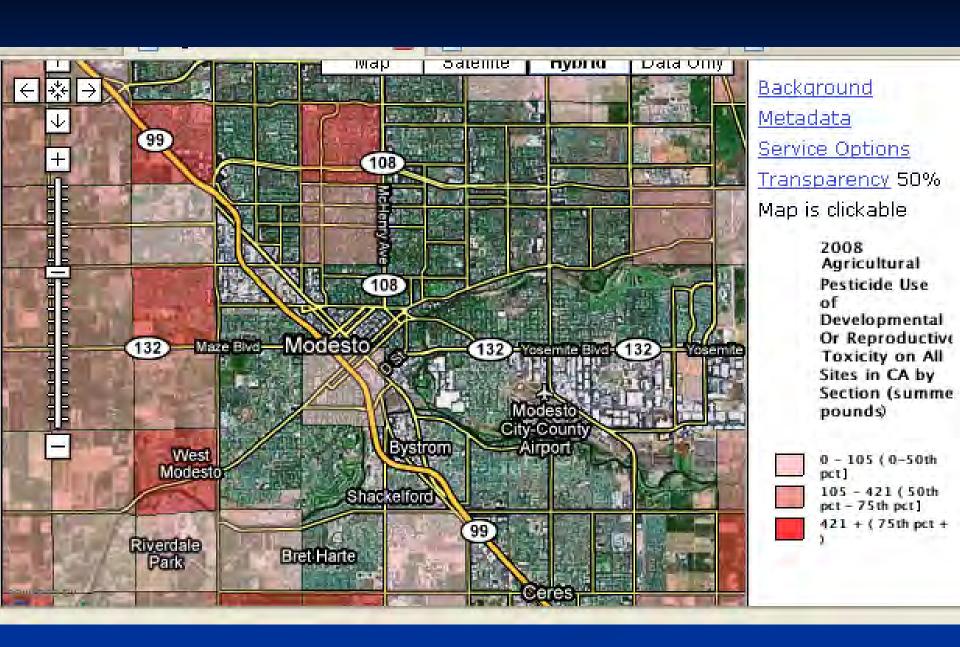
^{*}average annual daily traffic

^{**}ccw=counter clockwise



Agricultural Pesticide Web Mapping Service (WMS)





- In order for this information to be used by communities, data must be:
 - Accessible
 - Usuable
 - Understandable