



New MCAH Directors' Orientation Binder Family Health Outcomes Project

**May 19, 2008
Sacramento, CA**

Jointly sponsored by
California Department of Public Health,
Center for Family Health
Maternal, Child and Adolescent Health (MCAH) Program,
and Family Health Outcomes Project, UCSF

TABLE OF CONTENTS

Overview of FHOP Mission and Activities

- The Family Health Outcomes Project Orientation.....7

Overview of FHOP Website

- FHOP Home.....17
- Public Health Data.....18
- California MCAH Resources.....19
- Planning Tools.....22
- Publications.....24
- Software.....29
- Training.....30
- About FHOP.....31
- Site Map.....34

Data Available through FHOP

- Overview41
- Example of California County Data Page.....42
- Databook Example.....43
- Title V MCAH Indicators – Definitions and Data Sources.....81
- Technical Guide for Using Indicator Databooks 1994-2005.....87
- Other Data Available through FHOP.....101

FHOP Planning Tools

- Overview.....105
- Assessment Tools.....106
- Instructions for Completing MCH Indicator Templates.....108
- MCAH Community Assessment Survey.....118
- Intervention Planning Tools.....122
- Problem Analysis Diagrams.....123
- Logic Model Diagrams.....125
- The Planning Guide.....128

FHOP Software

- Overview.....133
- EpiBC134
- EpiHosp142

Appendix

- FHOP Password Request Form.....157
- FHOP Express Newsletter Sign Up Sheet.....159



Overview of FHOP Mission and Activities



The Family Health Outcomes Project: Orientation

Gerry Oliva M.D., MPH
Family Health Outcomes Project
May 19, 2008

FHOP Mission

To improve the health of children and their families and communities by supporting the development and implementation of comprehensive community planning, data-driven policies, evidence-based interventions, and effective evaluation strategies.

FHOP Background

- Located at the University of California, San Francisco, Department of Family and Community Medicine
- Affiliated with the Institute for Health Policy Studies
- MCAH project funded by State, Federal, and Foundation grants

FHOP Approach

- Collaboration
- Literature Review
- Consulting Experts
- Community Advisory Groups

FHOP Areas of Activity

- Web site
- Automated Resources and Tools
- Training
- Research and Development
- Analytic Methods
- Evaluation
- Technical Assistance

FHOP Activities: Improving Data Accessibility

- Work with state to develop standardized reports
- Disseminate data reports (e.g. annual birth and death data)
- Disseminate electronic data (e.g. hospital discharge file)
- Data resources library on FHOP website

Data Sources on the Web

FHOP Website: www.ucsf.edu/fhop

- Data tables and spreadsheets
- Links to other sites with relevant data
 - CDPH Center for Health Statistics
 - CDPH Communicable Disease Branch
 - UCLA/California Health Interview Survey
 - CDPH EPIC Center- Injury Data
 - CADSS Foster Care Data
- Data and links organized by topic area

Areas of Activity: Automated Resources

- EXCEL Templates
 - Calculate Rates and confidence intervals
 - Calculate Risk statistics
- Analysis – EpiInfo Based software
 - EpiBC
 - EpiHOSP

FHOP Data Templates

Year	California		County				County/State Comparison		
	Events	Percent	Events	Percent	Lower 95% C.L.	Upper 95% C.L.	Ratio	Lower 95% C.L.	Upper 95% C.L.
1994	56,064	10.3%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
1995	54,453	10.3%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
1996	53,022	10.3%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
1997	51,875	10.4%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
1998	52,441	10.6%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
1999	51,807	10.6%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2000	52,522	10.5%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2001	51,974	10.4%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2002	52,067	10.5%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2003	54,311	10.8%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2004	55,739	11.0%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2005	59,225	11.2%		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3 Year Aggregates	California		County				County/State Comparison		
	Events	Percent	Events	Percent	Lower 95% C.L.	Upper 95% C.L.	Ratio	Lower 95% C.L.	Upper 95% C.L.
1994-1996	163,539	10.3%	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
1997-1999	156,123	10.6%	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
200-2002	156,563	10.6%	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2003-2005	169,274	11.0%	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

FHOP Local Databooks

- EXCEL Spreadsheets that display County-level data over 12 years for different indicators
- Display the comparison of rates between county data, the State and Healthy People 2010 Objectives
- Contain a data quality tab to alert counties to missing or unlikely values and how they may affect accuracy of rate calculations
- Perform trend tests- "are things getting better or worse?" "how does progress in my county compare to the state?"

FHOP Automated Resources: EpiBC

- Based on public domain EpiInfo 2005
- Easy-to-use windows version
- Analyzes local birth certificate data and generates reports
- Generates graphs and maps
- Built-in tutorials, references, documentation
- Updated version for 2005



FHOP Activities: Research and Development

- Develop public health indicators
- Develop methods and guidelines and analytic tools
- Perform literature reviews for risk and protective factors and evidence-based practices
- Study trends in hospitalizations for children and youth for specific diagnoses
- Perform research and evaluation of innovative intervention strategies for high risk women

Perinatal and Child Health Survey

- Developed in conjunction with the MCAH Action Rural Caucus committee
- Contains a core survey along with 5 optional modules
- Stand-alone Adolescent health survey
- Data entry and analysis template in EpiINFO

Developing an Effective Planning Process: A Guide for Local MCAH Programs

- New edition published in 2003
- Reviews the traditional health planning cycle with a focus on MCAH activities
- Provides tools to facilitate planning during each phase of the process
- Provides tools to simplify data analysis

**Analytic Statistical Guidelines
2002**

**GUIDELINES FOR STATISTICAL ANALYSIS
OF PUBLIC HEALTH DATA
WITH ATTENTION TO SMALL NUMBERS**

IMPACT OF DATA QUALITY ON BIRTH RELATED HEALTH INDICATORS

Do We Have a Linear Trend?
A Beginner's Approach to Analysis of Trends
in Community Health Indicators

Data Standards

**GUIDELINES ON RACE/ETHNICITY
DATA COLLECTION, CODING AND REPORTING**

- A 2003 set of guidelines for the collection, coding and reporting of race and ethnicity on all data sets maintained by the CADHS
- Goal is to be able to compare data by uniformly defined categories that are consistent with Federal Office of Management and Budget census categories so that standard rates can be calculated

Race/Ethnicity Guidelines

- A set of guidelines for the collection, coding and reporting of race and ethnicity on all data sets maintained by the CADHS
- Developed through a cooperative process with the Center for Health Statistics and the Prevention Division
- New revision for 2002

FHOP Areas of Activity: Training

- Topics and schedule developed in collaboration with state MCAH staff and consultation with CCLDMCAH
- Format focuses on interactive skill development
- Aim to target trainings toward current MCAH needs

FHOP Areas of Activity: Technical Assistance

- FHOP staff available for assistance by phone 5 days a week (415-476-5283)
 - Data related questions
 - Assistance in use of automated tools
- Guidance in planning process

FHOP Staff

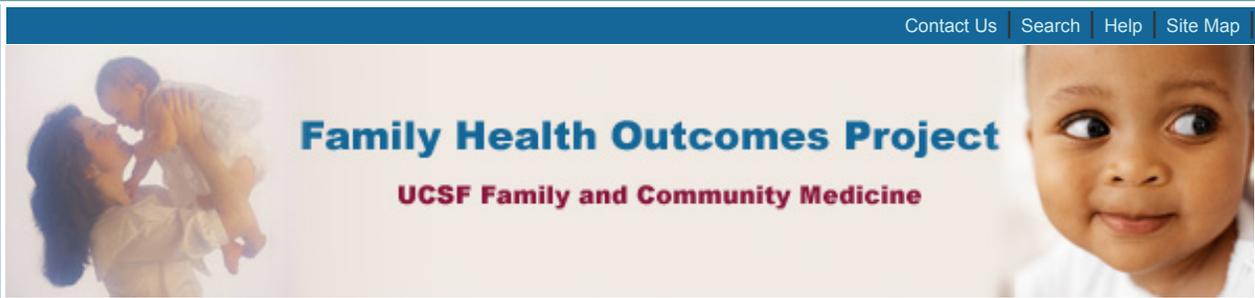
- Geraldine Oliva MD, MPH, Director
- Linda Remy, PhD, Assoc. Director, Research
- Judith Belfiori, MA, MPH, Planning and Evaluation
- Jennifer Rienks, PhD, Research Associate
- Gosia Pellarin, Administrator and Web master
- Jaime Sanchez, Administrative Assistant



Overview of FHOP Website



- public health data
- CA MCAH resources
- planning tools
- publications
- software
- training
- about FHOP



Family Health Outcomes Project

UCSF Family and Community Medicine

Powered by

Welcome to the Family Health Outcomes Project

FHOP is a cooperative effort of the Department of Family and Community Medicine and the Institute for Health Policy Studies at the University of California, San Francisco.

Our mission is to improve the health of children and their families and communities by supporting development and implementation of comprehensive community assessment and planning, data-driven policies, evidence based interventions, and effective evaluation strategies.



Latest FHOP News

- ▶ Updates to the EpiBC Software
- ▶ TRAINING ALERT Save the Date!

Getting Ready for the Title V 5-year Needs Assessment

- ▶ Infant and Child Deaths



[<< FHOP Express Archive >>](#)

Last updated March 6, 2008



County Pages

FHOP Public Health Data

Data Sources

[General Public Health Resources](#) **updated**

List of topic areas that link to national data sources, which contain state and/or local level data on selected public health problems or concerns.

[California MCAH Resources](#) > [California MCAH Data County Pages](#)

These pages contain data intended specifically for California Counties and Health Jurisdictions. (2005)

[Planning Tools](#) > [Data Sources & Tools for Measuring Adolescent Health Status](#)

Data Methods

[Unique Identifiers, Discussion, Recommendations, and Testing](#) 

An overview of criteria for selecting a unique identifier through a process that included a literature review, convening a group of experts to participate in the Unique ID Subcommittee, a survey of county MCAH directors and state program directors on uses of client tracking systems and preferences on approaches, a confidentiality and ethical literature review and participation on various state committees also studying unique ID such as the school linked data project (CIDC) and the California Health Information for Policy Project (CHIPP). (February 1995)

[Do We Have a Linear Trend?](#) 

Monitoring trends in community health status is an important public health function. Statewide trends may differ from local trends. Monitoring trends also is of value in assessing the impact of public health interventions. It is important that program staff distinguish between significant differences in a number or rate from year to year, and significant trends over 5 or more years. However, few public health managers have the analytic expertise to determine whether a trend may be occurring and, if so, whether it is statistically significant. These guidelines are intended to help program staff and epidemiologists from local health jurisdictions make such determinations. (2005)

[Publications](#) > [Guidelines for Statistical Analysis of Public Health Data with Attention to Small Numbers](#) (July 2003) 

[Publications](#) > [Guidelines on Race/Ethnicity Data Collection, Coding and Reporting for Year 2003](#) 

Cultural Competency

[National Center for Cultural Competency: Policy Brief 1](#) 

Nationally, organizations and programs that provide primary care are struggling to respond effectively to the needs of individuals and families from racially, ethnically, culturally and linguistically diverse groups. The incorporation of culturally competent approaches within primary care systems remains a great challenge for many states and communities. Numerous reasons justify the need for cultural competence at the patient provider level. (2003)

[The Seven Principles Project for African American Infant Survival & Community Unity](#)

Mission: To eliminate disparities in infant mortality rates; improve African American infant survival; and improve the health of families and communities with infants through developing community capacity.

[public health data](#)

[CA MCAH resources](#)

[planning tools](#)

[publications](#)

[software](#)

[training](#)

[about FHOP](#)



FHOP California MCAH Resources

Data Sources

[California County Pages and MCAH Data Spreadsheets](#)

These pages contain data spreadsheets intended specifically for California Counties and Health Jurisdictions, and reference documents for their interpretation.

[California County MCAH Data Resources](#) **updated**

Topical listing of useful data sources for the California Maternal, Child, and Adolescent Health community.

[County Health Status Profiles 2006](#)

Prepared by the California Department of Health Services and the California Conference of Local Health Officers, this report contains selected health status indicators recommended by the U.S. Public Health Service for monitoring state and local progress toward achieving the goals set forth in Healthy People 2010.

[Individual County Health Status Profiles 2006](#)

The Center for Health Statistics Office of Health Information and Research has added a new resource for county level data where counties can click on a map and get a customized spreadsheet with their own data extracted and summarized from the 2006 County Health Status profiles. These individual county profiles contain all twenty-six health status indicators found in the [County Health Status Profiles 2006](#)

Other Resources at FHOP

[Planning Tools](#) > [MCAH Community Assessment Survey](#)

[Planning Tools](#) > [Data Templates](#)

[Software](#) > [EpiBC](#), [EpiHosp](#)

[Publications](#)

[public health data](#)

[CA MCAH resources](#)

[planning tools](#)

[publications](#)

[software](#)

[training](#)

[about FHOP](#)



California County MCAH Data Spreadsheets Index

Counties

Alameda	Marin	San Mateo
Alpine	Mariposa	Santa Barbara
Amador	Mendocino	Santa Clara
Butte	Merced	Santa Cruz
Calaveras	Modoc	Shasta
Colusa	Mono	Sierra
Contra Costa	Monterey	Siskiyou
Del Norte	Napa	Solano
El Dorado	Nevada	Sonoma
Fresno	Orange	Stanislaus
Glenn	Placer	Sutter
Humboldt	Plumas	Tehama
Imperial	Riverside	Trinity
Inyo	Sacramento	Tulare
Kern	San Benito	Tuolumne
Kings	San Bernardino	Ventura
Lake	San Diego	Yolo
Lassen	San Francisco	Yuba
Los Angeles	San Joaquin	
Madera	San Luis Obispo	

Health Jurisdictions

Berkeley	Long Beach	Pasadena
Coastal Health		



- [public health data](#)
- [CA MCAH resources](#)
- [planning tools](#)
- [publications](#)
- [software](#)
- [training](#)
- [about FHOP](#)



California County MCAH Data Contra Costa County

Unrestricted Data

Boundary Files [1990](#) | [2000](#)

California MCH Health Data Book, [May 2002](#)



Password Protected Data



Databooks

Birth Interval [1994 - 2005](#)

Birth Weight [1994 - 2005](#)

Infant and Youth Mortality [1994 - 2005](#)

Fertility [1994 - 2005](#)

Asthma Hospitalizations [1994 - 2005](#)

Injury Hospitalizations [1994 - 2005](#)

Fetal Mortality [1994 - 2005](#)

Injury Hotspots [1997](#)

Population Data [1992 - 2002](#)

Prenatal Care [1994 - 2005](#)

Mental Health Hospitalizations [1994 - 2005](#)

Notes:

1. Please read the document, "[Do We Have A Linear Trend?](#)" for assistance in interpreting the data in the spreadsheets.
2. If you would like to be notified promptly of any new data posted on this page, please [sign up](#) for our Data Alert/Newsletter e-mailing list.

Raw Data Files

Hospital Discharge Data [1991 - 2005](#)

Additional Resources

[Do We Have a Linear Trend?](#)

This document is essential reading for interpreting and analyzing the data in the Protected Data section of this page.

[Technical Guide for Using Title V 5-Year Needs Assessment Indicators: Databooks 1994-2005](#)

This guide is an updated description of methods used to make DataBooks and how to interpret them. When first written in 2005, its purpose was to introduce DataBooks to local health jurisdictions and provide simple descriptions of how to interpret them. In this modest revision, we updated the example tables and figures to correspond with the 2005 data currently available, verified links, and made modest text edits. The monograph remains the best single place to learn about the DataBooks.(December 2007)

[Title V County Indicator Definitions and Reference](#)



public health data

CA MCAH resources

planning tools

publications

software

training

about FHOP



FHOP Planning Tools

- ▶ [Assessment Tools](#)
- ▶ [Intervention/Evaluation Planning Tools](#)
- ▶ [The Planning Guide](#)
- ▶ [Other Resources](#)

[public health data](#)[CA MCAH resources](#)[planning tools](#)[publications](#)[software](#)[training](#)[about FHOP](#)

Assessment Tools

[California County Data Templates](#)

These MCH Indicator Templates are intended to generate rates and risk ratios with confidence intervals for selected MCH indicators. Each template file contains data for California State point estimates for each indicator that could be replaced with data from any comparison population. By entering county data, you will be able to compare your data to your state. There is also a template to calculate relative risk, attributable risk, attributable risk percent and population attributable risk.

The zip file contains spreadsheets that can be read by MS Excel software. There is also a pdf document with instructions on how to use the templates.

[Data Sources & Tools for Measuring Adolescent Health Status](#)

A 12-page PDF document created to present health indicators for youth, covering areas of morbidity, mortality, and health service utilization. (March 2000)

[MCAH Community Assessment Survey](#)

This survey was developed in conjunction with the California Maternal, Child and Adolescent Health Action (MCAH ACTION) rural caucus and have been developed to help counties obtain information about the health of women, adolescents and children. The Core Survey includes five modules - dental health, asthma, childhood obesity, habits during pregnancy and family violence. The Adolescent Health Survey can be utilized as a stand-alone survey. In addition, the surveys and their respective modules are available in English and Spanish. (2004)

[Linear Trend Template](#)

This Excel template calculates linear trend statistics for 12 years of rates at two levels. Its use is described in FHOP's publication "Do We Have a Linear Trend," available on our publications page. As presented, the template tests for linear trends at higher (e.g., state) and lower (e.g. county) levels, then tests if the trends are significantly different from each other. Although set up to compare state and local health jurisdiction trends, it can be easily modified to compare other levels, e.g., nation and state, or super-region (e.g., Bay Area) and county. This template is inappropriate to use when trends are curvilinear in either comparison group.

[TOP ▲](#)

Intervention/Evaluation Planning Tools

These products are intended to assist you in developing interventions to address priority problem areas.

The following documents can be opened with Microsoft Word 

[Blank Problem Analysis Diagram](#)[Blank Logic Model Tool](#)[Tips for a Successful Problem Analysis and Identification of Points of Intervention](#)

[Example Problem Analysis Diagram](#)[Example Logic Model](#)[Criteria for Determining Feasible Solutions](#)

[Informational Resources](#)

This section is organized by topic and includes reference materials, literature reviews, sample problem analyses, useful web links, and other useful information for priority problem areas.

[Contacts](#)

[TOP ▲](#)

The Planning Guide

[Developing an Effective Planning Process: A Guide for Local MCH Programs](#)

The purpose of this manual is to assist local public health agencies in conducting a needs-based, rational planning and resource allocation process. Although the processes described are generic to all planning efforts at the local level, the case examples are specific to Maternal and Child Health Programs that are required to conduct a formal needs assessment and planning process every five years in order to receive their annual block grant funds. (September 2003)

[TOP ▲](#)

Other Resources

[The Promising Practices Network \(PPN\)](#) website features summaries of programs and practices that are proven through evaluation or show promise to improve outcomes for children and families. The PPN is operated by the RAND Corporation and is intended to help decision makers understand program approaches shown in the literature to improve outcomes. The website allows you to search for programs by topic area, indicators, or level of evidence supporting positive outcomes, and provides a description of each program. The website is updated frequently. This is a great resource to use in searching for information about evidence-based interventions that can be used in local program development.

[TOP ▲](#)

FHOP Publications

- ▶ [Data Analysis Methods/ Guidelines](#)
- ▶ [Public Health Planning](#)
- ▶ [Health Indicators](#)
- ▶ [Adolescents](#)
- ▶ [HIV/AIDS Prevention Research](#)
- ▶ [Children with Special Health Care Needs](#)
- ▶ [Children's Hospitalizations/ Trends and Outcomes](#)
- ▶ [Home Visiting](#)
- ▶ [Injury Surveillance](#)

[public health data](#)
[CA MCAH resources](#)
[planning tools](#)
[publications](#)
[software](#)
[training](#)
[about FHOP](#)

Data Analysis Methods/ Guidelines

[The Impact of Birth Certificate Data Quality in California On Birth Related Health Indicators in 2003](#)

The California Center for Health Statistics (CHS) initiated an effort to improve the quality of information for the certificate of live births. (August 2006)

[Technical Guide for Using Title V 5-Year Needs Assessment Indicators: Databooks 1994-2005](#)

This guide is an updated description of methods used to make DataBooks and how to interpret them. When first written in 2005, its purpose was to introduce DataBooks to local health jurisdictions and provide simple descriptions of how to interpret them. In this modest revision, we updated the example tables and figures to correspond with the 2005 data currently available, verified links, and made modest text edits. The monograph remains the best single place to learn about the DataBooks. (December 2007)

[Do We Have a Linear Trend?](#)

Monitoring trends in community health status is an important public health function. Statewide trends may differ from local trends. Monitoring trends also is of value in assessing the impact of public health interventions. It is important that program staff distinguish between significant differences in a number or rate from year to year, and significant trends over 5 or more years. However, few public health managers have the analytic expertise to determine whether a trend may be occurring and, if so, whether it is statistically significant. These guidelines are intended to help program staff and epidemiologists from local health jurisdictions make such determinations. (2005)

[Guidelines on Race/Ethnicity Data Collection, Coding and Reporting for Year 2003](#)

This document is intended to help institute compliance with the new national racial/ethnic data collection standards while also fulfilling California's need for consistent and more specific data given the unparalleled complexity of its population. (January 2003)

[Guidelines for Statistical Analysis of Public Health Data with Attention to Small Numbers](#)



These guidelines are intended to serve as an informal standard of practice for data analysts and program planners. (July 2003)

Public Health Planning

[Evaluating a Program to Build Data Capacity for Core Public Health Functions in Local Maternal Child and Adolescent Health Programs in California](#)

Matern Child Health J (2007) 11:1-10



The purpose of this publication was to evaluate the 6-pronged strategy utilized by FHOP to improve local Maternal and Child Health programs' capacity to collect and analyze data to support core public health functions: face-to-face training, telephone technical assistance, on-site consultation, development of automated analytic tools, development of written guidelines, and web dissemination of data and materials.

The Planning Guide: Developing an Effective Planning Process: A Guide for Local MCH Programs

The purpose of this manual is to assist local public health agencies in conducting a needs-based, rational planning and resource allocation process. Although the processes described are generic to all planning efforts at the local level, the case examples are specific to Maternal and Child Health Programs that are required to conduct a formal needs assessment and planning process every five years in order to receive their annual block grant funds. (September 2003)

Health Indicators

Health Indicators for California's Children and Youth

FHOP staff, under contract from the Foundation Consortium, developed a report entitled "Health Indicators for California's Children and Youth." This report can also be found at the [Foundation Consortium web site](#). (March 2001)

Selecting Health Indicators for Public Health Surveillance in a Changing Health Care Environment

A 24-page PDF document developed as a reference for public health agencies to utilize in assessing the impact of programs and services and systems and policy changes on the health and well being of women, infants, children and youth. (September 1997)

TOP ▲

Adolescents

Measuring the Positives: Review of Positive Indicators and Guidelines for their Use

The William T. Grant Foundation, September 2001

The National Adolescent Health Information Center (NAHIC) conducted a comprehensive review and analysis of approaches to and measures of positive youth development. The following papers compare the theoretical frameworks of the primary schools of thought in this arena, and examine the domains and constructs of the variables utilized by each. The papers also identify potential pitfalls of inappropriate use of these measures, and offer recommendations for using positive indicators.

Developing a Conceptual Model to Select Indicators for the Assessment of Adolescent Health and Well-Being

This paper, the first in a series of three, presents the historical context for the use of health indicators in maternal and child health with a focus on adolescent health; describes the state of recent efforts to monitor the health and well-being of adolescents and their families; identifies the limitations of those efforts; and presents a framework for a new approach to adolescent health assessment.

Bridging the Gap: Next Steps in Developing and Using Indicators to Improve Adolescent Health

The second paper in the series reviews the most well-studied and articulated conceptual frameworks for positive adolescent development and behavior that are informing the evolution of new assessment tools and indicators; compares these approaches; reviews and synthesizes the evidence for, and scientific validity of, adolescent health indicators that are emerging today; and makes

recommendations for the most promising approaches.

Assessing the "Multiple Processes" of Adolescent Health: Youth Development Approaches

The third, and final, paper proposes a framework for future efforts in the field and the development of a more comprehensive set of indicators.

▶ [Data sources and tools for measuring adolescent health status](#)

Children with Special Health Care Needs

Setting CCS Action Priorities for California's Title V 5-Year Plan

This Power Point presentation presents the process and assessment data used at meetings of the California Children's Services (CCS) Title V Children With Special Health Care Needs (CSHCN) Needs Assessment Stakeholder meetings. The purpose of the meetings was to obtain stakeholder input and to assist CCS in establishing its Title V 5-Year action priorities. (April 2005)

Children with Special Health Care Needs (CSHCN): Issues and Options in Selecting Health Indicators

A 60-page PDF document reviewing the state of the art of indicators for CSHCN in order to provide guidance to those public/private agencies interested in measuring the impact of changes on this population. (January 1999)

TOP ▲

Children's Hospitalizations/ Trends and Outcomes

The Impact of Changing Public Policy on California's Hospital Infrastructure and Children's Hospital Outcomes, 1983 - 2000

This study was undertaken to explore the consequences of conflicting health policies and lack of statewide planning on the healthcare infrastructure and health outcomes of California's child population. We describe and evaluate changes in hospital management and physical capacity. Then we examine the impact of those changes on children's hospital access and outcomes. The results are expected to provide guidance to the state legislature in evaluating the way health care dollars are allocated and in promulgating regulations to affect hospital infrastructure. (July 2004)

Creating Longitudinal Hospital-Level Data Sets

Per California regulations, hospital licenses are based on a given physical location. When hospitals disappear from various data files the explanation is not readily apparent. We must determine whether it is because the facility closed, merged, converted to consolidated reporting, or moved, resulting in a new license ID. Yet another possibility is that a new license ID was assigned to a facility at the same location. We developed a series of decision rules to resolve such issues in a longitudinally consistent manner. These included rules to handle changes in hospital identifiers, physical location, consolidated data reporting, ownership, organizational type, and structural capacity. This document provides a full discussion of the issues encountered in creating the hospital-level data sets, their resolution, and the creation of related analysis data sets and variables. (June 2004)

Methods to Prepare Hospital Discharge Data

OSHPD distributes Patient Discharge Data (PDD) to qualified researchers such as the Family Health Outcomes Project (FHOP). The FHOP human subjects protocols permit us to have the confidential PDD, for all discharges and ages, from 1983 forward. Currently we have processed all years through 2000 and are about to start with the 2001 and 2002 files. This document presents an overview of the methods we developed to create the core files we use as the source for the different PDD-based research and data products that FHOP distributes. (June

2004)

[The Impact of Changing Public Policy on Hospital Care for California Children Age 0 to 4 - 1983 to 1997.](#)

In this report FHOP reviews -- from the hospital point of view -- the longitudinal impact of changing public policy on children admitted to California's general acute care hospitals with an eye to quality of care. (June 2000)

[The Impact of Changing Public Policy on Hospital Admission Patterns for California Children Age 0 to 4 - 1983 to 1997](#)

The purpose of this study was to explore changes in rates and patterns of hospitalization for children 0 to 4 over the 15-year period from 1983-1997 to determine whether changes over this period could be related to changes in health policy for children. Between 1983 and 1997, California hospitals discharged 1,687,886 children age 0 to 4 excluding neonates (the study group). In this report, we focus on two variables of critical importance to policy makers that directly reflect health equity. These are the race/ethnicity of the discharged child, the anticipated payor at discharge, and the interplay between these. (June 2000)

TOP ▲

Home Visiting

[Findings from the MCAH Action Home Visiting Priority Workgroup Survey "Home Visiting for Pregnant Women, Newborn Infants, and/or High-Risk Families"](#)

The Home Visiting Priority Workgroup of California's MCAH Action (the statewide organization of Maternal, Child and Adolescent Health Directors for the 61 local public health jurisdictions in California), with the assistance of the Family Health Outcomes Project (FHOP), developed and disseminated a self-administered questionnaire to the 61 local MCAH directors/coordinators to collect data on local health department home visiting programs that serve pregnant women, newborn infants and/or high risk families. (August 2006)

Injury Surveillance

[The California Child and Youth Injury Hot Spot Project, Report for the Period 1995 to 1997](#)

[Volume 1 - State Guide](#)

[Volume 2 - County Guide](#)

[Volume 3 - Technical Guide](#)

This report summarizes injury data for California's children and youth age 0 to 24 years statewide and for local health jurisdictions (58 counties, with Los Angeles divided into four regions, and three independent cities). The ZIP-level analysis compares each ZIP with all other ZIPs statewide and within each jurisdiction.

The **State Guide** summarizes methods used to analyze the data, classify ZIPs, and presents overall statewide results. It is important to understand the statewide results in order to evaluate the meaning of regional data. Maps in this volume allow readers to visually compare their region's injury pattern with the statewide injury pattern, and to compare ZIPs within their region to each other.

State summary tables in the State Guide can be compared with region summary tables in Volume Two: **County Guide**. This enables the reader to compare characteristics of injured children in a particular region of interest to state averages. We hope this will contribute to a better understanding of injuries to California's young people and their course of hospital care. ZIP-level tables in the County Guide compare a community's actual injury rates with injury rates statewide and within the region. This permits the reader to evaluate how well each

community within a region safeguards its children.

Finally, for those with technical expertise who are interested in a more detailed description of the methods and analyses, refer to Volume Three, **Technical Guide**. (August 2000)

► [California MCAH Resources](#) > [California County Pages and MCAH Data Spreadsheets](#) > [Injury Hotspot Data Tables by County](#)

TOP ▲

HIV/AIDS Prevention Research

HIV/AIDS Prevention Intervention Among Urban, At-Risk African Americans

This publication is a part of The California Collaborations in HIV Prevention Research Dissemination Project. The modules in the Dissemination Project focus on prevention research projects that represent partnerships among funders, scientists, and front-line community service providers.

A university and community-based organization collaboration to build capacity to develop, implement, and evaluate an innovative HIV prevention intervention for an urban African American population.

AIDS Education and Prevention, 17(4), 300-316, 2005

Through forming a collaborative relationship to develop, pilot and evaluate an innovative bio-psycho-behavioral (BPB) HIV prevention intervention, capacity was built in developing an effective intervention and conducting community based research at both the California Prostitutes Prevention and Education Project (CAL-PEP) and the University of California's Family Health Outcomes Project. The research objective was to investigate whether the BPB intervention that included sexually transmitted diseases (STD) testing and behavioral counseling, is superior to standard HIV counseling and testing.

Preventing AIDS: Community-Science Collaborations

Chapter 7: Critical Collaborations in Serving High-Risk Women: The PHREDA Project

New York, Haworth Press, Inc.: 133-162, 2004

This chapter of the book gives a brief background on PHREDA and describes the three phases of the project. The summary of the collaborative organization and highlights of our main research findings from each phase follow. We also explore how differences in the collaborative organization, decision-making and research protocols contributed to the project's successes and failures.

What high-risk women are telling us about access to primary and reproductive health care and HIV prevention services.

AIDS Educ Prev. 1999 Dec;11(6):513-24.

This article identifies barriers to care for women at high risk for HIV through analysis of both the qualitative data from the focus groups and the quantitative data from both the outreach and the clinic survey conducted in the US.

TOP ▲

FHOP Software

EpiBC 2005: Birth Certificate Data Analysis & Presentation System

1. [Download and Install EpiInfo \(Ver 3.4\)](#)
2. [Download EpiBC \(04.25.06\)](#)

[EpiBC Manual](#)

Refer to this document for installation instructions.

[California MCAH Data County Pages: Boundary Files](#)

[EpiBC Troubleshooting and Frequently Asked Questions](#)

EpiHosp: Hospital Discharge Data Analysis & Presentation System

[Download EpiHosp 2.0](#)

[EpiHosp 2.0 Manual](#) 

[EpiInfo for EpiHosp](#)

[Download EpiInfo \(Ver 3.4\)](#) **updated**

[EpiMap2](#)

[Download EpiMap2](#) 

[California MCAH Data County Pages: Boundary Files](#)

[public health data](#)

[CA MCAH resources](#)

[planning tools](#)

[publications](#)

[software](#)

[training](#)

[about FHOP](#)



FHOP Training

2008			
04/16	Sacramento	Getting Ready for the Title V 5 Year Needs Assessment: Using FHOP Data Sources	Register
2007			
09/25	Sacramento	FHOP Orientation for MCAH Program Consultants	Course Materials
06/27	Sacramento	Databooks	Course Materials
03/14	San Francisco	EpiHOSP 2.0	Cancelled
01/11	Sacramento	EpiHOSP 2.0	Course Materials
2006			
02/22	Fresno	Program Evaluation I	Course Materials
02/23	Fresno	Program Evaluation II	Course Materials
03/01	Sacramento	Program Evaluation I	Course Materials
03/02	Sacramento	Program Evaluation II	Course Materials
2005			
02/28	San Francisco	Using a Logic Model for Program Planning and Evaluation	Course Materials
04/13	Sacramento	EpiBC 2005	Download
06/29	San Francisco	EpiBC 2005	Download
11/16	San Francisco	Trend Analysis	Course Materials
2004			
10/13	Foster City, CA	Analyzing Problems & Developing Interventions: Obesity and Adolescent Issues	Course Materials
10/18	Ontario, CA	Analyzing Problems & Developing Interventions: Obesity and Perinatal Substance Use	Course Materials
10/21	Modesto, CA	Analyzing Problems & Developing Interventions: Asthma and Perinatal Issues	Course Materials

[public health data](#)[CA MCAH resources](#)[planning tools](#)[publications](#)[software](#)[training](#)[about FHOP](#)


Sign up
for our
Newsletter



FHOP

About Us

[public health data](#)
[CA MCAH resources](#)
[planning tools](#)
[publications](#)
[software](#)
[training](#)
[about FHOP](#)


What is FHOP

The University of California, San Francisco Family Health Outcomes Project FHOP, established in 1992, is a cooperative effort of the Department of Family and Community Medicine and the Institute for Health Policy Studies (IHPS) at the University of California, San Francisco (UCSF).

Since its creation in October 1992, FHOP has worked to: develop or adapt standardized approaches to health outcomes monitoring; identify and develop indicators of health and wellness; develop approaches for longitudinal monitoring of indicators and tracking of individuals and to develop methods for unique client identification. FHOP provides technical assistance and training to state and local health jurisdictions related to using data for assessment and planning. The project also does research on the factors which impact maternal/child health outcomes.



More about FHOP

- [What We Do](#)
- [Projects](#)
- [Staff](#)
- [FHOP News](#)
- [Contact Us](#)

FHOP

What We Do

- ▶ [Technical Assistance and Training](#)
 - ▶ [Research](#)
 - ▶ [Health Indicators](#)
- ▶ [Tools and Resources for Public Health Data Functions](#)
 - ▶ [Unique Client Identification and Tracking](#)
 - ▶ [Consultation](#)

[public health data](#)
[CA MCAH resources](#)
[planning tools](#)
[publications](#)
[software](#)
[training](#)
[about FHOP](#)

Technical Assistance and Training

FHOP's training and technical assistance activities build capacity for effective use of data for assessment, planning, policy development and program evaluation by government and non-profit agencies and community-based organizations. Activities include:

- Ongoing training and technical assistance for local, state, and non-profit agencies and hospitals
- Consultation to counties, individual states and community-based organizations in understanding and using data for decision-making
- Developing web-based distance learning curricula for local and state health department staff

Health Indicators

FHOP promotes the use of uniformly defined and measured health indicators and performance measures through the development of:

- Indicators to monitor the impact of changes in the health care system on the MCH population
- Performance measures to monitor quality of care
- Indicators to monitor the effectiveness of community health coalitions
- Suggested ethnic sensitive indicators for documenting racial and ethnic disparities in health
- Identifying data sources and analytical methods to measure indicators

Research

To further the understanding of the effects of health and social policies and systems on the health status of children and their families, FHOP is engaged in the following research efforts:

- Analyzing statewide hospital discharge data for disease patterns and trends in indicators of access to care
- Conducting a small area analysis of childhood injuries and factors associated with injury hospitalizations in children
- Exploring time trends in hospital complication rates
- Evaluating an outreach and education program for those at high risk for HIV

Tools and Resources for Public Health Data Functions

FHOP's publications and software assist health agencies to more effectively use data. All FHOP publications and software are available on this site. Products include:

- [Selecting Indicators in a Multicultural Environment](#)
- [Guidelines on Race/Ethnicity Data Collection, Coding, and Reporting](#)
- [Guidelines for Statistical Analysis of Public Health Data with Attention to Small Numbers](#)
- [Developing an Effective Planning Process: A Guide for Local MCH Programs](#)
- [Selecting Health Indicators for Public Health Surveillance in a Changing Health Care Environment](#)
- [Spreadsheet templates to assess trends in selected indicators and their statistical significance](#)

- Public domain software to analyze birth certificate and hospital discharge data (EpiBC and EpiHosp)

Unique Client Identification and Tracking

Unique client identification facilitates data linkage and cross-program tracking to better monitor service utilization and quality of care. FHOP's approach now employed by the California Departments of Health and Mental Health Services includes:

- Data standards for a set of core data elements
- A method for using these elements to link data sets or unduplicated client encounters and to generate a unique client identifier
- Recommendations for ensuring confidentiality when using these approaches

Consultation

FHOP staff is available to provide consultation to public and private agencies in:

- Developing agency goals and indicators
- Program planning and evaluation
- Data and small area analysis
- Survey development
- Building capacity for use of data

FHOP Site Map

- ▶ [Public Health Data](#)
- ▶ [California MCAH Resources](#)
- ▶ [Planning Tools](#)
- ▶ [Publications](#)
- ▶ [Software](#)
- ▶ [Training](#)
- ▶ [About FHOP](#)
- ▶ [Technical Support](#)

Public Health Data

Data Sources

[General Public Health Resources](#)

[California MCAH Resources > California County Pages and MCAH Data Spreadsheets](#)

[Planning Tools > Data Sources & Tools for Measuring Adolescent Health Status](#)

Data Methods

[Unique Identifiers, Discussion, Recommendations, and Testing](#) 

[Do We Have a Linear Trend?](#) 

[Publications > Guidelines for Statistical Analysis of Public Health Data with Attention to Small Numbers](#) 

[Publications > Guidelines on Race/Ethnicity Data Collection, Coding and Reporting for Year 2003](#) 

Cultural Competency

[National Center for Cultural Competency: Policy Brief 1](#) 

[The Seven Principles Project for African American Infant Survival & Community Unity](#)

California MCAH Resources

Data Sources

[California County Pages and MCAH Data Spreadsheets](#)

[California County MCAH Data Resources](#)

[County Health Status Profiles 2006](#) 

[Individual County Health Status Profiles 2005](#)

Other Resources at FHOP

[Planning Tools > MCAH Community Assessment Survey](#)

[Planning Tools > Data Templates](#)  

[Software > EpiBC, EpiHosp](#)

[Publications](#)

TOP ▲

Planning Tools



[public health data](#)

[CA MCAH resources](#)

[planning tools](#)

[publications](#)

[software](#)

[training](#)

[about FHOP](#)



Assesment Tools

[California County Data Templates](#)  

[Data Sources & Tools for Measuring Adolescent Health Status](#) 

[MCAH Community Assessment Survey](#)

[Linear Trend Template](#) 

Intervention/Evaluation Planning Tools

[Blank Problem Analysis Diagram](#) 

[Blank Logic Model Tool](#) 

[Tips for a Successful Problem Analysis and Identification of Points of Intervention](#) 

[Example Problem Analysis Diagram](#) 

[Example Logic Model](#) 

[Criteria for Determining Feasible Solutions](#) 

[Intervention Planning Informational Resources](#)

[Intervention Planning Contacts](#)

The Planning Guide

[Developing an Effective Planning Process: A Guide for Local MCH Programs](#)

Other Resources

[The Promising Practices Network \(PPN\)](#)

TOP ▲

Publications**Data Analysis Methods/ Guidelines**

[The Impact of Birth Certificate Data Quality in California On Birth Related Health Indicators in 2003](#) 

[Technical Guide for Using Title V 5-Year Needs Assessment Indicators: Databooks 1994-2005](#) 

[Do We Have a Linear Trend?](#) 

[Guidelines on Race/Ethnicity Data Collection, Coding and Reporting for Year 2003](#) 

[Guidelines for Statistical Analysis of Public Health Data with Attention to Small Numbers](#) 

Public Health Planning

[Evaluating a Program to Build Data Capacity for Core Public Health Functions in Local Maternal Child and Adolescent Health Programs in California](#) 

[The Planning Guide: Developing an Effective Planning Process: A Guide for Local MCH Programs](#)

Health Indicators

[Health Indicators for California's Children and Youth](#) 

[Selecting Health Indicators for Public Health Surveillance in a Changing Health Care Environment](#)

Adolescent

[Measuring the Positives: Review of Positive Indicators and Guidelines for Their Use](#)

Developing a Conceptual Model to Select Indicators for the Assessment of Adolescent Health and Well-Being 
 Bridging the Gap: Next Steps in Developing and Using Indicators to Improve Adolescent Health 
 Assessing the "Multiple Processes" of Adolescent Health: Youth Development Approaches 

▶ [Data sources and tools for measuring adolescent health status](#)

TOP ▲

Children with Special Health Care Needs

[Setting CCS Action Priorities for California's Title V 5-Year Plan](#) 

[Children with Special Health Care Needs \(CSHCN\): Issues and Options in Selecting Health Indicators](#)

Children's Hospitalizations/ Trends and Outcomes

[The Impact of Changing Public Policy on California's Hospital Infrastructure and Children's Hospital Outcomes, 1983 - 2000](#) 

[The Impact of Changing Public Policy on Hospital Care for California Children Age 0 to 4 - 1983 to 1997.](#) 

[Creating Longitudinal Hospital-Level Data Sets](#) 

[Methods to Prepare Hospital Discharge Data](#) 

Home Visiting

[Findings from the MCAH Action Home Visiting Priority Workgroup Survey "Home Visiting for Pregnant Women, Newborn Infants, and/or High-Risk Families"](#) 

Injury Surveillance

The California Child and Youth Injury Hot Spot Project, Report for the Period 1995 to 1997 

[Volume 1 - State Guide](#)

[Volume 2 - County Guide](#)

[Volume 3 - Technical Guide](#)

▶ [California MCAH Resources > California County Pages and MCAH Data Spreadsheets > Injury Hotspot Data Tables by County](#)

HIV/AIDS Prevention Research

[HIV/AIDS Prevention Intervention Among Urban, At-Risk African Americans. A university and community-based organization collaboration to build capacity to develop, implement, and evaluate an innovative HIV prevention intervention for an urban African American population.](#) 

[Preventing AIDS: Community-Science Collaborations - Chapter 7: Critical Collaborations in Serving High-Risk Women: The PHREDA Project](#) 

[What high-risk women are telling us about access to primary and reproductive health care and HIV prevention services.](#) 

TOP ▲

Software

EpiBC 2005: Birth Certificate Data Analysis & Presentation System

[Download EpiInfo](#)
[Download EpiBC](#)
[EpiBC Manual](#)
[California MCAH Data County Pages: Boundary Files](#)

EpiHosp: Hospital Discharge Data Analysis & Presentation System
[Download EpiHosp 2.0](#)
[EpiHosp 2.0 Manual](#) 

Epi Map2
[Download](#) 
[California MCAH Data County Pages: Boundary Files](#)

[TOP ▲](#)

Training

[2008 Trainings](#)
[2007 Trainings](#)
[2006 Trainings](#)
[2005 Trainings](#)
[2004 Trainings](#)
[Training Presentations and Handouts](#)

About FHOP

[What is FHOP](#)
[What We Do](#)
[Projects](#)
[Staff](#)
[FHOP News](#)
[Contact Us](#)

Technical Support

[EpiBC Troubleshooting and Frequently Asked Questions](#)

Downloads

[Adobe Acrobat Reader](#)
[Microsoft PowerPoint Viewer](#)
[Microsoft Excel Viewer](#)
[WinZip](#)

[Contact Us](#)

[TOP ▲](#)



**Data Available
through FHOP**

Data Available on the FHOP Website

As part of the cooperative agreement with the state MCAH Branch, FHOP maintains a section of its website specifically for the MCAH staff of California's 61 local health jurisdictions (LHJs). When you are on the FHOP website <http://www.ucsf.edu/fhop/> you will see some tabs on the left hand column of the home page. When you click on **CA MCAH Resources** you will see a page that contains links to all the relevant data and material that you will need for responding to requests from the MCAH Branch for data relevant to your Title V allocation. The first link brings up a page with a list of the 61 California LHJs. When you click on your LHJ you will find your own county or city page.

This section of the binder contains examples of the more important materials that are available via your county or city page. These include:

- A sample county spreadsheet from the **FHOP Databooks**. The Databooks consist of a set of EXCEL spreadsheets that FHOP generates from birth, death, fetal death and hospital discharge data on indicators required by MCAH for the Title V assessment. These files also contain comparison data for the state and the perinatal region that includes a particular county. Along with numerator data you will find tables comparing rates for the indicators and graphs of 12 year trends. To access these on the website you will have to request a password from FHOP.
- A monograph "**Technical Guide for Using Title V 5-Year Needs Assessment Indicators: Databooks 1994-2005,**" that explains all the data decisions and data methods use in preparing the Databooks.
- **Title V MCAH Indicators Data Definitions and References** – a table listing the 27 required indicators with definition and links to the data. In some cases live links in the table take you to the Databooks, to other FHOP created data tables or to other websites that produce relevant data.

California County MCAH Data Contra Costa County

Unrestricted Data

Boundary Files [1990](#) | [2000](#)

California MCH Health Data Book, [May 2002](#)



Password Protected Data



Databooks

Birth Interval [1994 - 2005](#)

Birth Weight [1994 - 2005](#)

Infant and Youth Mortality [1994 - 2005](#)

Fertility [1994 - 2005](#)

Asthma Hospitalizations [1994 - 2005](#)

Injury Hospitalizations [1994 - 2005](#)

Fetal Mortality [1994 - 2005](#)

Injury Hotspots [1997](#)

Population Data [1992 - 2002](#)

Prenatal Care [1994 - 2005](#)

Mental Health Hospitalizations [1994 - 2005](#)

Notes:

1. Please read the document, "[Do We Have A Linear Trend?](#)" for assistance in interpreting the data in the spreadsheets.
2. If you would like to be notified promptly of any new data posted on this page, please [sign up](#) for our [Data Alert/Newsletter e-mailing list](#).

Raw Data Files

Hospital Discharge Data [1991 - 2005](#)

Additional Resources

[Do We Have a Linear Trend?](#)

This document is essential reading for interpreting and analyzing the data in the Protected Data section of this page.

[Technical Guide for Using Title V 5-Year Needs Assessment Indicators: Databooks 1994-2005](#)

This guide is an updated description of methods used to make DataBooks and how to interpret them. When first written in 2005, its purpose was to introduce DataBooks to local health jurisdictions and provide simple descriptions of how to interpret them. In this modest revision, we updated the example tables and figures to correspond with the 2005 data currently available, verified links, and made modest text edits. The monograph remains the best single place to learn about the DataBooks.(December 2007)

[Title V County Indicator Definitions and Reference](#)



public health data

CA MCAH resources

planning tools

publications

software

training

about FHOP



FHOP Databooks

- EXCEL Spreadsheets that display County-level data over 12 years for different indicators
- Display the comparison of rates between county data, the State and Healthy People 2010 Objectives
- Contain a data quality tab to alert counties to missing or unlikely values and how they may affect accuracy of rate calculations
- Perform trend tests: “Are things getting better or worse?” “How does progress in my county compare to the state?”

The following example contains spreadsheets for Bay Area Fetal and Perinatal Death data.

Fetal and Perinatal Death

Bay Area

Description	Race/ Ethnicity	NUMERATOR											
		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Fetal Deaths >= 20 Weeks Gestational Age	Total	435	507	485	454	456	462	521	474	511	445	442	470
	1 White	160	194	160	160	167	146	181	145	161	133	132	160
	2 Black	68	98	80	78	94	94	91	72	82	67	68	61
	3 Hispanic	128	119	131	124	131	120	129	141	157	150	150	148
	4 Asian	77	91	110	91	77	99	119	114	110	94	92	101
	5 AmIndain	2	5	4	1	2	3	1	2	1	1	0	0
Late Fetal Deaths >= 28 Weeks Gestational Age	Total	263	281	273	264	260	266	290	266	293	247	235	261
	1 White	98	103	87	98	96	85	112	81	101	77	70	91
	2 Black	36	48	38	38	35	51	39	38	43	38	33	26
	3 Hispanic	78	69	74	73	84	67	73	90	90	79	84	87
	4 Asian	51	58	72	55	43	62	66	56	59	53	48	57
	5 AmIndain	0	3	2	0	2	1	0	1	0	0	0	0
Early Neonatal Death - Birth to 6 days	Total	269	216	242	270	241	228	248	211	234	211	211	211
	1 White	120	70	93	104	79	64	90	75	91	76	76	76
	2 Black	40	47	45	50	41	47	27	37	27	23	23	23
	3 Hispanic	66	61	70	83	74	77	86	60	83	67	67	67
	4 Asian	43	36	34	33	47	40	45	38	33	45	45	45
	5 AmIndain	0	2	0	0	0	0	0	1	0	0	0	0
Perinatal Death Rate (Title V Indicator) Between 28 weeks and <7 days	Total	532	497	515	534	501	494	538	477	527	458	446	472
	1 White	218	173	180	202	175	149	202	156	192	153	146	167
	2 Black	76	95	83	88	76	98	66	75	70	61	56	49
	3 Hispanic	144	130	144	156	158	144	159	150	173	146	151	154
	4 Asian	94	94	106	88	90	102	111	94	92	98	93	102
	5 AmIndain	0	5	2	0	2	1	0	2	0	0	0	0
Perinatal Death Ratio Between 28 weeks and <7 days	Total	532	497	515	534	501	494	538	477	527	458	446	472
	1 White	218	173	180	202	175	149	202	156	192	153	146	167
	2 Black	76	95	83	88	76	98	66	75	70	61	56	49
	3 Hispanic	144	130	144	156	158	144	159	150	173	146	151	154
	4 Asian	94	94	106	88	90	102	111	94	92	98	93	102
	5 AmIndain	0	5	2	0	2	1	0	2	0	0	0	0

Fetal and Perinatal Death

Bay Area

Description	Race/ Ethnicity	DENOMINATOR												
		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
Fetal Deaths >= 20 Weeks Gestational Age	Total	96,004	93,691	93,953	93,210	93,881	93,190	98,461	97,100	97,013	97,231	95,893	95,202	
	1 White	41,735	40,539	39,313	38,468	38,517	36,758	37,618	36,297	35,602	35,941	34,651	33,543	
	2 Black	9,406	8,829	8,239	8,050	7,673	7,567	7,336	7,074	6,732	6,405	6,207	5,988	
	3 Hispanic	25,840	25,345	26,772	26,871	27,355	27,846	29,452	30,249	30,435	30,504	30,982	32,099	
	4 Asian	18,649	18,587	19,251	19,471	19,949	20,688	23,761	23,172	23,935	24,068	23,734	23,284	
	5 AmIndlian	374	391	378	350	387	331	294	308	309	313	319	288	
Late Fetal Deaths >= 28 Weeks Gestational Age	Total	95,832	93,465	93,741	93,020	93,685	92,994	98,230	96,892	96,795	97,033	95,686	94,993	
	1 White	41,673	40,448	39,240	38,406	38,446	36,697	37,549	36,233	35,542	35,885	34,589	33,474	
	2 Black	9,374	8,779	8,197	8,010	7,629	7,524	7,284	7,040	6,693	6,376	6,172	5,953	
	3 Hispanic	25,790	25,295	26,715	26,820	27,308	27,793	29,396	30,198	30,368	30,433	30,916	32,038	
	4 Asian	18,623	18,554	19,213	19,435	19,915	20,651	23,708	23,114	23,884	24,027	23,690	23,240	
	5 AmIndlian	372	389	376	349	387	329	293	307	308	312	319	288	
Early Neonatal Death - Birth to 6 days	Total	95,569	93,184	93,468	92,756	93,425	92,728	97,940	96,626	96,502	96,786	95,451	94,732	
	1 White	41,575	40,345	39,153	38,308	38,350	36,612	37,437	36,152	35,441	35,808	34,519	33,383	
	2 Black	9,338	8,731	8,159	7,972	7,594	7,473	7,245	7,002	6,650	6,338	6,139	5,927	
	3 Hispanic	25,712	25,226	26,641	26,747	27,224	27,726	29,323	30,108	30,278	30,354	30,832	31,951	
	4 Asian	18,572	18,496	19,141	19,380	19,872	20,589	23,642	23,058	23,825	23,974	23,642	23,183	
	5 AmIndlian	372	386	374	349	385	328	293	306	308	312	319	288	
Perinatal Death Rate (Title V Indicator) Between 28 weeks and < 7 days	Total	95,832	93,465	93,741	93,020	93,685	92,994	98,230	96,892	96,795	97,033	95,686	94,993	
	1 White	41,673	40,448	39,240	38,406	38,446	36,697	37,549	36,233	35,542	35,885	34,589	33,474	
	2 Black	9,374	8,779	8,197	8,010	7,629	7,524	7,284	7,040	6,693	6,376	6,172	5,953	
	3 Hispanic	25,790	25,295	26,715	26,820	27,308	27,793	29,396	30,198	30,368	30,433	30,916	32,038	
	4 Asian	18,623	18,554	19,213	19,435	19,915	20,651	23,708	23,114	23,884	24,027	23,690	23,240	
	5 AmIndlian	372	389	376	349	387	329	293	307	308	312	319	288	
Perinatal Death Ratio Between 28 weeks and < 7 days	Total	95,569	93,184	93,468	92,756	93,425	92,728	97,940	96,626	96,502	96,786	95,451	94,732	
	1 White	41,575	40,345	39,153	38,308	38,350	36,612	37,437	36,152	35,441	35,808	34,519	33,383	
	2 Black	9,338	8,731	8,159	7,972	7,594	7,473	7,245	7,002	6,650	6,338	6,139	5,927	
	3 Hispanic	25,712	25,226	26,641	26,747	27,224	27,726	29,323	30,108	30,278	30,354	30,832	31,951	
	4 Asian	18,572	18,496	19,141	19,380	19,872	20,589	23,642	23,058	23,825	23,974	23,642	23,183	
	5 AmIndlian	372	386	374	349	385	328	293	306	308	312	319	288	

Fetal and Perinatal Death

State

Description	Race/ Ethnicity	NUMERATOR											
		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Fetal Deaths >= 20 Weeks Gestational Age	Total	2,996	3,050	3,054	2,723	2,773	2,664	2,767	2,661	2,608	2,672	2,619	2,754
	1 White	983	1,053	1,012	893	920	809	866	776	736	727	709	751
	2 Black	391	396	348	335	319	346	345	333	320	300	291	312
	3 Hispanic	1,344	1,304	1,387	1,224	1,286	1,250	1,278	1,282	1,266	1,333	1,312	1,413
	4 Asian	264	285	294	262	240	251	282	258	275	294	290	276
	5 AmIndiant	14	12	13	9	8	8	6	12	11	18	17	2
Fetal Deaths >= 28 Weeks Gestational Age	Total	1,850	1,788	1,781	1,589	1,621	1,493	1,574	1,471	1,443	1,479	1,473	1,488
	1 White	603	603	555	529	513	453	461	429	391	397	394	417
	2 Black	208	198	175	165	165	167	167	152	157	168	154	135
	3 Hispanic	876	812	867	736	814	716	776	743	720	738	764	783
	4 Asian	170	167	176	156	124	152	169	140	163	170	153	152
	5 AmIndiant	11	8	8	3	5	5	1	7	6	12	8	1
Early Neonatal Death - Birth to 6 days	Total	1,968	1,692	1,612	1,614	1,615	1,478	1,539	1,490	1,546	1,514	1,514	1,514
	1 White	661	546	552	516	478	432	469	466	496	438	438	438
	2 Black	332	260	238	261	234	222	211	214	191	188	188	188
	3 Hispanic	844	756	690	721	766	706	737	695	739	759	759	759
	4 Asian	124	121	128	114	131	111	120	109	112	127	127	127
	5 AmIndiant	7	9	4	2	6	7	2	6	8	2	2	2
Perinatal Death Rate (Title V Indicator Between 28 weeks and < 7 days	Total	3,818	3,480	3,393	3,203	3,236	2,971	3,113	2,961	2,989	2,993	2,987	3,002
	1 White	1,246	1,149	1,107	1,045	991	885	930	895	893	829	832	855
	2 Black	540	458	413	426	399	389	378	366	348	356	342	323
	3 Hispanic	1,720	1,568	1,557	1,457	1,580	1,422	1,513	1,438	1,459	1,497	1,523	1,542
	4 Asian	294	288	304	270	255	263	289	249	275	297	280	279
	5 AmIndiant	18	17	12	5	11	12	3	13	14	14	10	3
Perinatal Death Ratio Between 28 weeks and < 7 days	Total	3,818	3,480	3,393	3,203	3,236	2,971	3,113	2,961	2,989	2,993	2,987	3,002
	1 White	1,246	1,149	1,107	1,045	991	885	930	895	893	829	832	855
	2 Black	540	458	413	426	399	389	378	366	348	356	342	323
	3 Hispanic	1,720	1,568	1,557	1,457	1,580	1,422	1,513	1,438	1,459	1,497	1,523	1,542
	4 Asian	294	288	304	270	255	263	289	249	275	297	280	279
	5 AmIndiant	18	17	12	5	11	12	3	13	14	14	10	3

Description	Race/ Ethnicity	DENOMINATOR											
		1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Fetal Deaths >= 20 Weeks Gestational Age	Total	570,030	554,276	541,682	526,897	524,038	520,737	534,052	530,032	531,849	543,499	547,304	551,454
	1 White	208,569	199,414	188,355	181,099	181,066	175,946	175,346	171,027	169,715	172,956	170,758	167,343
	2 Black	41,872	39,562	37,377	36,292	35,519	34,482	34,097	32,802	31,700	31,218	30,745	30,828
	3 Hispanic	258,807	255,030	256,059	250,019	249,082	250,503	259,236	262,278	264,288	271,024	276,500	284,236
	4 Asian	58,074	57,523	57,236	56,896	55,776	57,297	63,127	61,684	63,874	65,989	66,935	66,629
	5 AmIndIndian	2,708	2,747	2,655	2,591	2,595	2,509	2,246	2,241	2,272	2,312	2,366	2,418
Fetal Deaths >= 28 Weeks Gestational Age	Total	568,884	553,014	540,409	525,763	522,886	519,566	532,859	528,842	530,684	542,306	546,158	550,188
	1 White	208,171	198,964	187,898	180,735	180,659	175,590	174,951	170,680	169,376	172,620	170,443	167,009
	2 Black	41,689	39,364	37,204	36,122	35,365	34,303	33,919	32,621	31,537	31,086	30,608	30,651
	3 Hispanic	258,339	254,538	255,539	249,531	248,610	249,969	258,734	261,739	263,742	270,429	275,952	283,606
	4 Asian	57,980	57,405	57,118	56,790	55,660	57,198	63,014	61,566	63,762	65,865	66,798	66,505
	5 AmIndIndian	2,705	2,743	2,650	2,585	2,592	2,506	2,241	2,236	2,267	2,306	2,357	2,417
Early Neonatal Death - Birth to 6 days	Total	567,034	551,226	538,628	524,174	521,265	518,073	531,285	527,371	529,241	540,827	544,685	548,700
	1 White	207,586	198,361	187,343	180,206	180,146	175,137	174,490	170,251	168,979	172,229	170,049	166,592
	2 Black	41,481	39,166	37,029	35,957	35,200	34,136	33,752	32,469	31,360	30,918	30,454	30,516
	3 Hispanic	257,463	253,726	254,672	248,795	247,796	249,253	257,958	260,996	263,022	269,691	275,188	282,823
	4 Asian	57,810	57,238	56,942	56,634	55,536	57,046	62,845	61,426	63,599	65,695	66,645	66,353
	5 AmIndIndian	2,694	2,735	2,642	2,582	2,587	2,501	2,240	2,229	2,261	2,294	2,349	2,416
Perinatal Death Rate (Title V Indicator Between 28 weeks and < 7 days	Total	568,884	553,014	540,409	525,763	522,886	519,566	532,859	528,842	530,684	542,306	546,158	550,188
	1 White	208,171	198,964	187,898	180,735	180,659	175,590	174,951	170,680	169,376	172,620	170,443	167,009
	2 Black	41,689	39,364	37,204	36,122	35,365	34,303	33,919	32,621	31,537	31,086	30,608	30,651
	3 Hispanic	258,339	254,538	255,539	249,531	248,610	249,969	258,734	261,739	263,742	270,429	275,952	283,606
	4 Asian	57,980	57,405	57,118	56,790	55,660	57,198	63,014	61,566	63,762	65,865	66,798	66,505
	5 AmIndIndian	2,705	2,743	2,650	2,585	2,592	2,506	2,241	2,236	2,267	2,306	2,357	2,417
Perinatal Death Ratio Between 28 weeks and < 7 days	Total	567,034	551,226	538,628	524,174	521,265	518,073	531,285	527,371	529,241	540,827	544,685	548,700
	1 White	207,586	198,361	187,343	180,206	180,146	175,137	174,490	170,251	168,979	172,229	170,049	166,592
	2 Black	41,481	39,166	37,029	35,957	35,200	34,136	33,752	32,469	31,360	30,918	30,454	30,516
	3 Hispanic	257,463	253,726	254,672	248,795	247,796	249,253	257,958	260,996	263,022	269,691	275,188	282,823
	4 Asian	57,810	57,238	56,942	56,634	55,536	57,046	62,845	61,426	63,599	65,695	66,645	66,353
	5 AmIndIndian	2,694	2,735	2,642	2,582	2,587	2,501	2,240	2,229	2,261	2,294	2,349	2,416

Gestational Age. This table summarizes 2005 perinatal death data outliers. It does not show year to year variation. In 2005, the fetal death file had 3,114 records. Gestational age (GA) is the key variable in this file to calculate perinatal mortality. GA was unknown or fully missing on 225 records (7.2%). Of records with GA present, the minimum GA was 2 weeks and the 1%ile was 15 weeks. The range for the 99%ile was 45 weeks to 138 weeks or almost 3 years.

Implications. Review this table to understand if your county results may be affected by unusual numbers of outliers for the GA variable that is the key to case definition. Statewide, 11.2% of records were outliers, with a county median of 9.4%. This median is 2.2% higher than we last reported for 2003. If your county percent is more than 7.7% (median in 2003) and depending on the number of fetal deaths, further research may be indicated to find out how your county can improve GA recording. Be increasingly skeptical of your fetal death rates with increasing amounts of poor quality data.

Definition Fetal Deaths N: Number of fetal deaths in area

Definition Fetal Deaths %: Number of fetal deaths in area divided by total fetal deaths in state

Definition Gestational Age <= 1%ile: Number of records with gestational age in the lowest 1%ile

Definition Gestational Age >= 99%ile: Number of records with gestational age in the highest 1%ile

Definition Gestational Age Missing: Number of records with gestational age fully missing or equal 999

Definition Outlier Records: Sum of 1%, 99% and missing records

Definition Percent Outlier Local: Number of local outlier records divided by number of local fetal death records times 100

Definition Percent Outlier Total: Number of local outlier records divided by number of state outlier records times 100

Mother's County of Residence	Fetal Deaths		Gestational Age			Outlier Records	Percent Outlier	
	N	%	<= 1%ile	>=99%ile	Missing		Local	Total
California	3,114	100	103	22	225	350	11.2	100.0
1 Alameda	116	3.7	4	1	4	9	7.8	2.6
2 Alpine								
3 Amador	2	0.1	0	0	0	0	0.0	0.0
4 Butte	15	0.5	1	0	3	4	26.7	1.1
5 Calaveras	1	0.0	0	0	1	1	100.0	0.3
6 Colusa								
7 Contra Costa	82	2.6	5	0	4	9	11.0	2.6
8 Del Norte	2	0.1	0	0	0	0	0.0	0.0
9 El Dorado	5	0.2	0	1	0	1	20.0	0.3
10 Fresno	85	2.7	4	0	1	5	5.9	1.4
11 Glenn	1	0.0	0	0	0	0	0.0	0.0
12 Humboldt	6	0.2	1	0	0	1	16.7	0.3
13 Imperial	21	0.7	1	0	4	5	23.8	1.4
14 Inyo	1	0.0	0	0	0	0	0.0	0.0
15 Kern	85	2.7	4	0	5	9	10.6	2.6
16 Kings	15	0.5	1	0	0	1	6.7	0.3
17 Lake								
18 Lassen								
19 Los Angeles	903	29.0	27	9	86	122	13.5	34.9
20 Madera	11	0.4	0	0	2	2	18.2	0.6
21 Marin	10	0.3	0	0	0	0	0.0	0.0
22 Mariposa	1	0.0	0	0	0	0	0.0	0.0
23 Mendocino	6	0.2	0	0	0	0	0.0	0.0
24 Merced	22	0.7	2	0	3	5	22.7	1.4
25 Modoc								
26 Mono	2	0.1	0	0	0	0	0.0	0.0

Fetal and Perinatal Death

Data Quality

Mother's County of Residence	Fetal Deaths		Gestational Age			Outlier Records	Percent Outlier	
	N	%	<= 1%ile	>=99%ile	Missing		Local	Total
California	3,114	100	103	22	225	350	11.2	100.0
27 Monterey	39	1.3	1	0	5	6	15.4	1.7
28 Napa	13	0.4	0	0	0	0	0.0	0.0
29 Nevada	5	0.2	0	0	0	0	0.0	0.0
30 Orange	233	7.5	8	4	10	22	9.4	6.3
31 Placer	18	0.6	0	1	0	1	5.6	0.3
32 Plumas	2	0.1	0	0	0	0	0.0	0.0
33 Riverside	178	5.7	7	1	11	19	10.7	5.4
34 Sacramento	134	4.3	1	0	17	18	13.4	5.1
35 San Benito	5	0.2	0	1	0	1	20.0	0.3
36 San Bernardino	206	6.6	7	2	8	17	8.3	4.9
37 San Diego	243	7.8	10	0	18	28	11.5	8.0
38 San Francisco	50	1.6	0	0	2	2	4.0	0.6
39 San Joaquin	83	2.7	4	1	6	11	13.3	3.1
40 San Luis Obispo	19	0.6	0	0	2	2	10.5	0.6
41 San Mateo	52	1.7	0	0	2	2	3.8	0.6
42 Santa Barbara	30	1.0	0	0	3	3	10.0	0.9
43 Santa Clara	133	4.3	3	0	9	12	9.0	3.4
44 Santa Cruz	9	0.3	1	0	0	1	11.1	0.3
45 Shasta	12	0.4	1	0	0	1	8.3	0.3
46 Sierra	1	0.0	0	0	0	0	0.0	0.0
47 Siskiyou								
48 Solano	35	1.1	2	0	7	9	25.7	2.6
49 Sonoma	34	1.1	0	0	4	4	11.8	1.1
50 Stanislaus	38	1.2	1	1	0	2	5.3	0.6
51 Sutter	5	0.2	0	0	1	1	20.0	0.3
52 Tehama	12	0.4	1	0	2	3	25.0	0.9
53 Trinity								
54 Tulare	45	1.4	2	0	0	2	4.4	0.6
55 Tuolumne	2	0.1	0	0	0	0	0.0	0.0
56 Ventura	58	1.9	3	0	4	7	12.1	2.0
57 Yolo	14	0.4	1	0	1	2	14.3	0.6
58 Yuba	14	0.4	0	0	0	0	0.0	0.0

Fetal Death Rate Trends by Race/Ethnicity

BAY AREA

- DEFINITION:** The number of fetal deaths with stated or presumed gestation of 20 weeks or more divided by the sum of live births plus fetal deaths, per 1,000 live births plus fetal deaths
- NUMERATOR:** The number of fetal deaths of 20 weeks or more gestation, by place of residence, in a calendar year
- DENOMINATOR:** The total number of live births plus fetal deaths, by place of residence, in a calendar year
- HP 2010 OBJECTIVE: 16-1A.** Reduce the fetal death rate (20 or more weeks of gestation) to no more than 4.1 per 1,000 live births plus fetal deaths. (Baseline: 6.8 per 1,000 live births plus fetal deaths in 1997)
- RISK FACTORS:** Race/ethnicity (Black); maternal diabetes; pregnancy complications; maternal medical complications/chronic illness during pregnancy (including severe maternal infection); Rh sensitization; congenital anomalies; intrauterine cocaine exposure; maternal history of miscarriage

TOTAL POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	2,996	5.3	5.1	5.4	435	4.5	4.1	5.0
1995	3,050	5.5	5.3	5.7	507	5.4	5.0	5.9
1996	3,054	5.6	5.4	5.8	485	5.2	4.7	5.6
1997	2,723	5.2	5.0	5.4	454	4.9	4.4	5.3
1998	2,773	5.3	5.1	5.5	456	4.9	4.4	5.3
1999	2,664	5.1	4.9	5.3	462	5.0	4.5	5.4
2000	2,767	5.2	5.0	5.4	521	5.3	4.9	5.8
2001	2,661	5.0	4.8	5.2	474	4.9	4.5	5.3
2002	2,608	4.9	4.7	5.1	511	5.3	4.8	5.7
2003	2,672	4.9	4.7	5.1	445	4.6	4.2	5.0
2004	2,619	4.8	4.6	5.0	442	4.6	4.2	5.1
2005	2,754	5.0	4.8	5.2	470	4.9	4.5	5.4

- Sources:** **Definition:** <http://www.cdc.gov/nchs/datawh/nchsdefs/rates.htm#fetal> last accessed 10 Apr 06.
- Numerator:** California Center for Health Statistics, Vital Statistics, Fetal Death Statistical Master File. To order: <http://www.dhs.ca.gov/hisp/chs/OHIR/Catalog/DataCatalog.htm>. Last accessed 20 Apr 05.
- Denominator:** California Center for Health Statistics, Vital Statistics, Births Statistical Master File and Fetal Death Statistical Master File. To order: <http://www.dhs.ca.gov/hisp/chs/OHIR/Catalog/DataCatalog.htm>. Last accessed 20 Apr 05

Recommended Tables:

If the number of cases in your county is small, we recommend case studies. Otherwise, we suggest obtaining the fetal death file for your county with the caveat that these data need to be analyzed together with information from the birth certificates to understand differences.

- Notes:** C.L. = Confidence Limit - the boundary for the confidence interval.

Fetal Death Rate Trends by Race/Ethnicity
BAY AREA

WHITE POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	983	4.7	4.4	5.0	160	3.8	3.3	4.5
1995	1,053	5.3	5.0	5.6	194	4.8	4.2	5.5
1996	1,012	5.4	5.1	5.7	160	4.1	3.5	4.7
1997	893	4.9	4.6	5.3	160	4.2	3.6	4.9
1998	920	5.1	4.8	5.4	167	4.3	3.7	5.0
1999	809	4.6	4.3	4.9	146	4.0	3.4	4.7
2000	856	4.9	4.6	5.2	181	4.8	4.2	5.6
2001	776	4.5	4.2	4.9	145	4.0	3.4	4.7
2002	736	4.3	4.0	4.7	161	4.5	3.9	5.3
2003	727	4.2	3.9	4.5	133	3.7	3.1	4.4
2004	709	4.2	3.9	4.5	132	3.8	3.2	4.5
2005	751	4.5	4.2	4.8	160	4.8	4.1	5.6

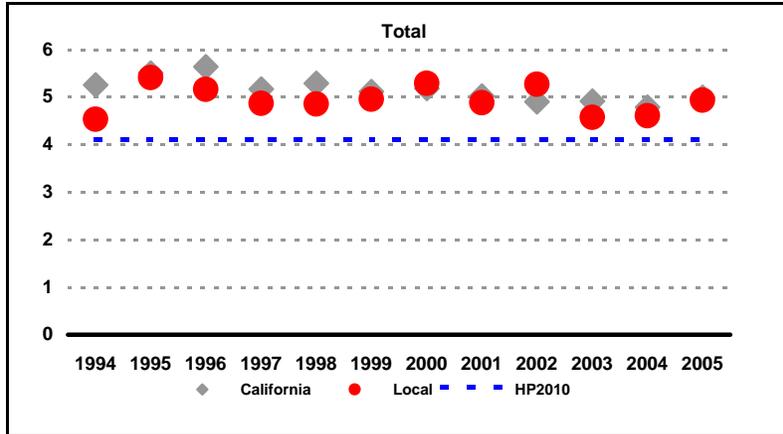
HISPANIC POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	1,344	5.2	4.9	5.5	128	5.0	4.2	5.9
1995	1,304	5.1	4.8	5.4	119	4.7	3.9	5.6
1996	1,387	5.4	5.1	5.7	131	4.9	4.1	5.8
1997	1,224	4.9	4.6	5.2	124	4.6	3.9	5.5
1998	1,286	5.2	4.9	5.5	131	4.8	4.0	5.7
1999	1,250	5.0	4.7	5.3	120	4.3	3.6	5.2
2000	1,278	4.9	4.7	5.2	129	4.4	3.7	5.2
2001	1,282	4.9	4.6	5.2	141	4.7	4.0	5.5
2002	1,266	4.8	4.5	5.1	157	5.2	4.4	6.0
2003	1,333	4.9	4.7	5.2	150	4.9	4.2	5.8
2004	1,312	4.7	4.5	5.0	150	4.8	4.1	5.7
2005	1,413	5.0	4.7	5.2	148	4.6	3.9	5.4

Fetal Death Rate Trends by Race/Ethnicity
BAY AREA

AFRICAN-AMERICAN POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	391	9.3	8.5	10.3	68	7.2	5.7	9.2
1995	396	10.0	9.1	11.0	98	11.1	9.1	13.5
1996	348	9.3	8.4	10.3	80	9.7	7.8	12.1
1997	335	9.2	8.3	10.3	78	9.7	7.8	12.1
1998	319	9.0	8.1	10.0	79	10.3	8.3	12.8
1999	346	10.0	9.0	11.1	94	12.4	10.2	15.2
2000	345	10.1	9.1	11.2	91	12.4	10.1	15.2
2001	333	10.2	9.1	11.3	72	10.2	8.1	12.8
2002	320	10.1	9.1	11.3	82	12.2	9.8	15.1
2003	300	9.6	8.6	10.8	67	10.5	8.2	13.3
2004	291	9.5	8.4	10.6	68	11.0	8.7	13.9
2005	312	10.1	9.1	11.3	61	10.2	7.9	13.1

ASIAN POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	264	4.5	4.0	5.1	77	4.1	3.3	5.2
1995	285	5.0	4.4	5.6	91	4.9	4.0	6.0
1996	294	5.1	4.6	5.8	110	5.7	4.7	6.9
1997	262	4.6	4.1	5.2	91	4.7	3.8	5.7
1998	240	4.3	3.8	4.9	77	3.9	3.1	4.8
1999	251	4.4	3.9	5.0	99	4.8	3.9	5.8
2000	282	4.5	4.0	5.0	119	5.0	4.2	6.0
2001	258	4.2	3.7	4.7	114	4.9	4.1	5.9
2002	275	4.3	3.8	4.8	110	4.6	3.8	5.5
2003	294	4.5	4.0	5.0	94	3.9	3.2	4.8
2004	290	4.3	3.9	4.9	92	3.9	3.2	4.8
2005	276	4.1	3.7	4.7	101	4.3	3.6	5.3

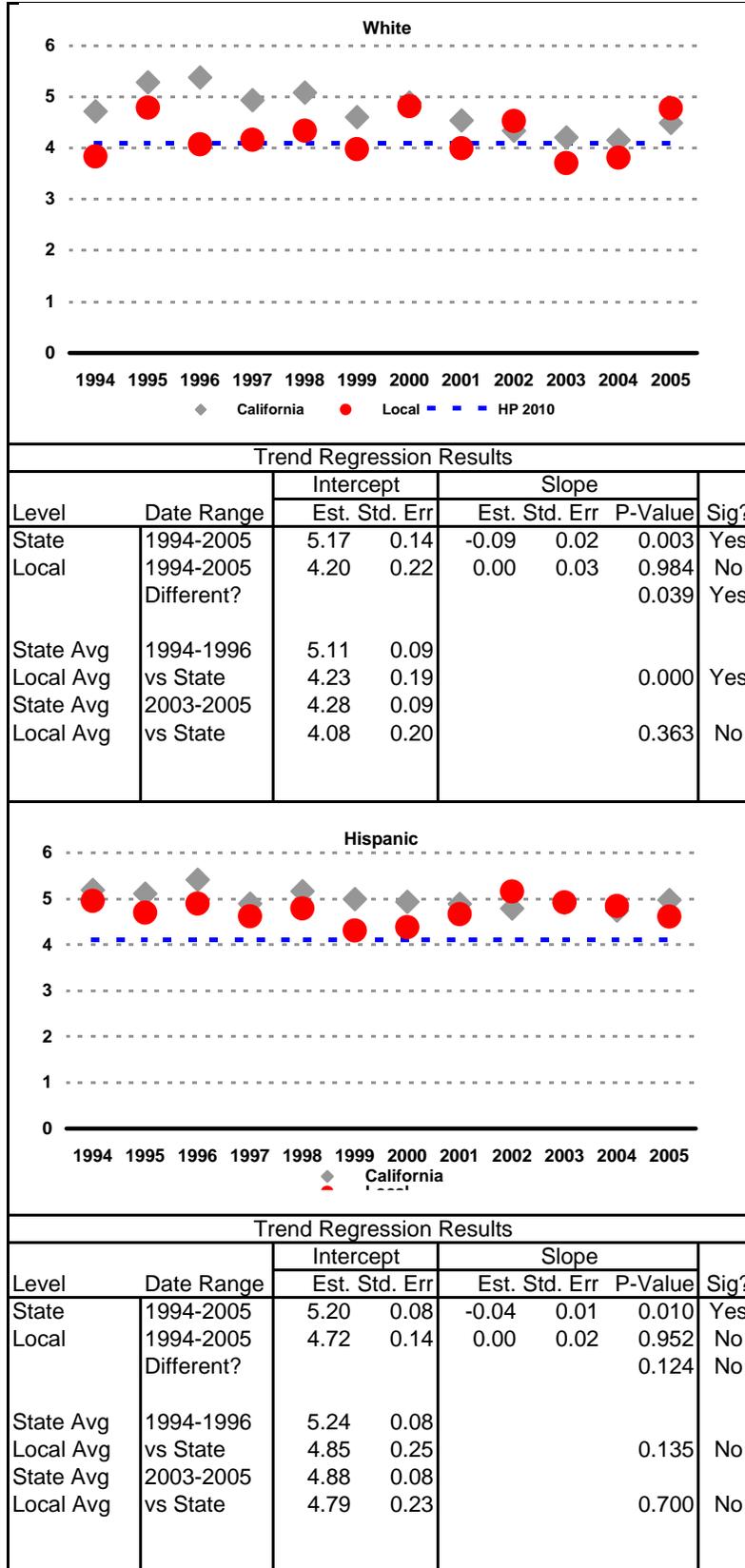
Fetal Death Rate Trends by Race/Ethnicity BAY AREA



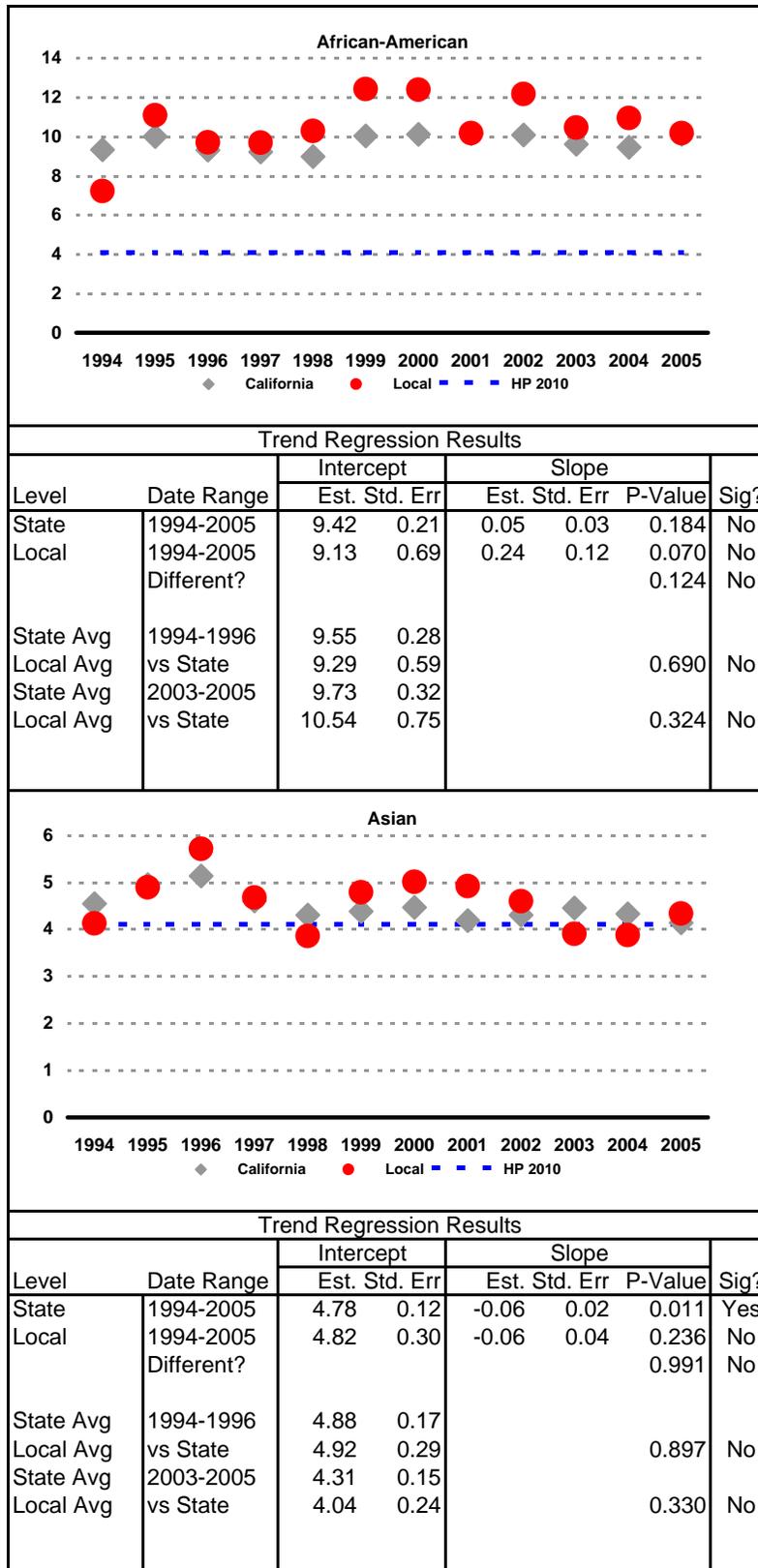
Trend Regression Results

Level	Date Range	Intercept		Slope			Sig?
		Est.	Std. Err	Est.	Std. Err	P-Value	
State	1994-2005	5.46	0.08	-0.06	0.01	0.001	Yes
Local	1994-2005	5.01	0.16	-0.01	0.02	0.587	No
	Different?					0.122	No
State Avg	1994-1996	5.46	0.06				
Local Avg	vs State	5.03	0.13			0.003	Yes
State Avg	2003-2005	4.90	0.05				
Local Avg	vs State	4.71	0.13			0.166	No

Fetal Death Rate Trends by Race/Ethnicity BAY AREA



Fetal Death Rate Trends by Race/Ethnicity BAY AREA



Late Fetal Death Rate Trends by Race/Ethnicity

BAY AREA

- DEFINITION:** The number of fetal deaths with stated or presumed gestation of 28 weeks or more divided by the sum of live births plus late fetal deaths, per 1,000 live births plus late fetal deaths
- NUMERATOR:** The number of fetal deaths of 28 weeks or more gestation, by place of residence, in a calendar year
- DENOMINATOR:** The total number of live births plus late fetal deaths, by place of residence, in a calendar year
- HP 2010 OBJECTIVE:** None
- RISK FACTORS:** Race/ethnicity (Black); maternal diabetes; pregnancy complications; maternal medical complications/chronic illness during pregnancy (including severe maternal infection); Rh sensitization; congenital anomalies; intrauterine cocaine exposure; maternal history of miscarriage, quality of hospital care

TOTAL POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	1,850	3.3	3.1	3.4	263	2.7	2.4	3.1
1995	1,788	3.2	3.1	3.4	281	3.0	2.7	3.4
1996	1,781	3.3	3.1	3.5	273	2.9	2.6	3.3
1997	1,589	3.0	2.9	3.2	264	2.8	2.5	3.2
1998	1,621	3.1	3.0	3.3	260	2.8	2.5	3.1
1999	1,493	2.9	2.7	3.0	266	2.9	2.5	3.2
2000	1,574	3.0	2.8	3.1	290	3.0	2.6	3.3
2001	1,471	2.8	2.6	2.9	266	2.7	2.4	3.1
2002	1,443	2.7	2.6	2.9	293	3.0	2.7	3.4
2003	1,479	2.7	2.6	2.9	247	2.5	2.2	2.9
2004	1,473	2.7	2.6	2.8	235	2.5	2.2	2.8
2005	1,488	2.7	2.6	2.8	261	2.7	2.4	3.1

- Sources:** **Definition:** <http://www.cdc.gov/nchs/datawh/nchsdefs/rates.htm#fetal> last accessed 10 Apr 06.
Numerator: California Center for Health Statistics, Vital Statistics, Fetal Death Statistical Master File. To order: <http://www.dhs.ca.gov/hisp/chs/OHIR/Catalog/DataCatalog.htm>. Last accessed 20 Apr 05.
Denominator: California Center for Health Statistics, Vital Statistics, Births Statistical Master File and Fetal Death Statistical Master File. To order: <http://www.dhs.ca.gov/hisp/chs/OHIR/Catalog/DataCatalog.htm>. Last accessed 20 Apr 05

Recommended Tables: *Can be analyzed using linked birth-death records*

- Births by mother's race/ethnicity -- Review Fertility Birth Rate Tables
- Births by mother's age
- Births by mother's education
- Births by geographic area (ZIP code, if available)
- Map of distribution of births by geographic area (ZIP code)
- Births by parity
- Births by method of payment for prenatal care (if available)

Notes: C.L. = Confidence Limit - the boundary for the confidence interval.

Late Fetal Death Rate Trends by Race/Ethnicity
BAY AREA

WHITE POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	585	2.8	2.6	3.0	98	2.4	1.9	2.9
1995	603	3.0	2.8	3.3	103	2.5	2.1	3.1
1996	555	3.0	2.7	3.2	87	2.2	1.8	2.7
1997	529	2.9	2.7	3.2	98	2.6	2.1	3.1
1998	513	2.8	2.6	3.1	96	2.5	2.0	3.0
1999	453	2.6	2.4	2.8	85	2.3	1.9	2.9
2000	461	2.6	2.4	2.9	112	3.0	2.5	3.6
2001	429	2.5	2.3	2.8	81	2.2	1.8	2.8
2002	397	2.3	2.1	2.6	101	2.8	2.3	3.5
2003	391	2.3	2.1	2.5	77	2.1	1.7	2.7
2004	394	2.3	2.1	2.6	70	2.0	1.6	2.6
2005	417	2.5	2.3	2.7	91	2.7	2.2	3.3

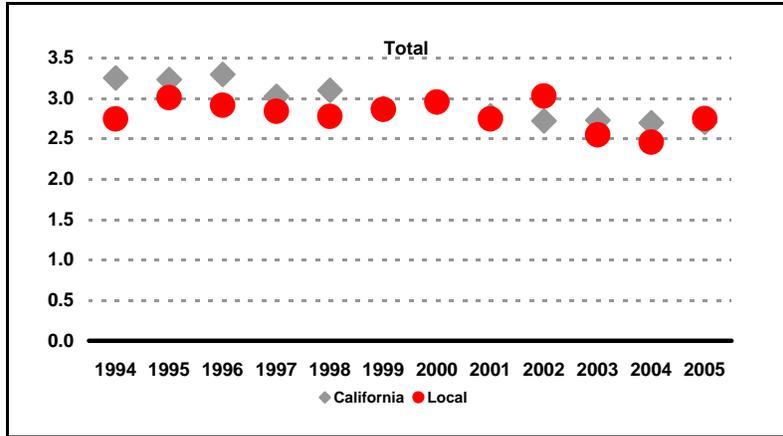
HISPANIC POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	876	3.4	3.2	3.6	78	3.0	2.4	3.8
1995	812	3.2	3.0	3.4	69	2.7	2.2	3.5
1996	867	3.4	3.2	3.6	74	2.8	2.2	3.5
1997	736	2.9	2.7	3.2	73	2.7	2.2	3.4
1998	814	3.3	3.1	3.5	84	3.1	2.5	3.8
1999	716	2.9	2.7	3.1	67	2.4	1.9	3.1
2000	776	3.0	2.8	3.2	73	2.5	2.0	3.1
2001	743	2.8	2.6	3.0	90	3.0	2.4	3.7
2002	720	2.7	2.5	2.9	90	3.0	2.4	3.6
2003	738	2.7	2.5	2.9	79	2.6	2.1	3.2
2004	764	2.8	2.6	3.0	84	2.7	2.2	3.4
2005	783	2.8	2.6	3.0	87	2.7	2.2	3.3

Late Fetal Death Rate Trends by Race/Ethnicity
BAY AREA

AFRICAN-AMERICAN POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	208	5.0	4.4	5.7	36	3.8	2.8	5.3
1995	198	5.0	4.4	5.8	48	5.5	4.1	7.2
1996	175	4.7	4.1	5.5	38	4.6	3.4	6.4
1997	165	4.6	3.9	5.3	38	4.7	3.5	6.5
1998	165	4.7	4.0	5.4	35	4.6	3.3	6.4
1999	167	4.9	4.2	5.7	51	6.8	5.2	8.9
2000	167	4.9	4.2	5.7	39	5.4	3.9	7.3
2001	152	4.7	4.0	5.5	38	5.4	3.9	7.4
2002	157	5.0	4.3	5.8	43	6.4	4.8	8.6
2003	168	5.4	4.6	6.3	38	6.0	4.3	8.2
2004	154	5.0	4.3	5.9	33	5.3	3.8	7.5
2005	135	4.4	3.7	5.2	26	4.4	3.0	6.4

ASIAN POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	170	2.9	2.5	3.4	51	2.7	2.1	3.6
1995	167	2.9	2.5	3.4	58	3.1	2.4	4.0
1996	176	3.1	2.7	3.6	72	3.7	3.0	4.7
1997	156	2.7	2.3	3.2	55	2.8	2.2	3.7
1998	124	2.2	1.9	2.7	43	2.2	1.6	2.9
1999	152	2.7	2.3	3.1	62	3.0	2.3	3.8
2000	169	2.7	2.3	3.1	66	2.8	2.2	3.5
2001	140	2.3	1.9	2.7	56	2.4	1.9	3.1
2002	163	2.6	2.2	3.0	59	2.5	1.9	3.2
2003	170	2.6	2.2	3.0	53	2.2	1.7	2.9
2004	153	2.3	2.0	2.7	48	2.0	1.5	2.7
2005	152	2.3	2.0	2.7	57	2.5	1.9	3.2

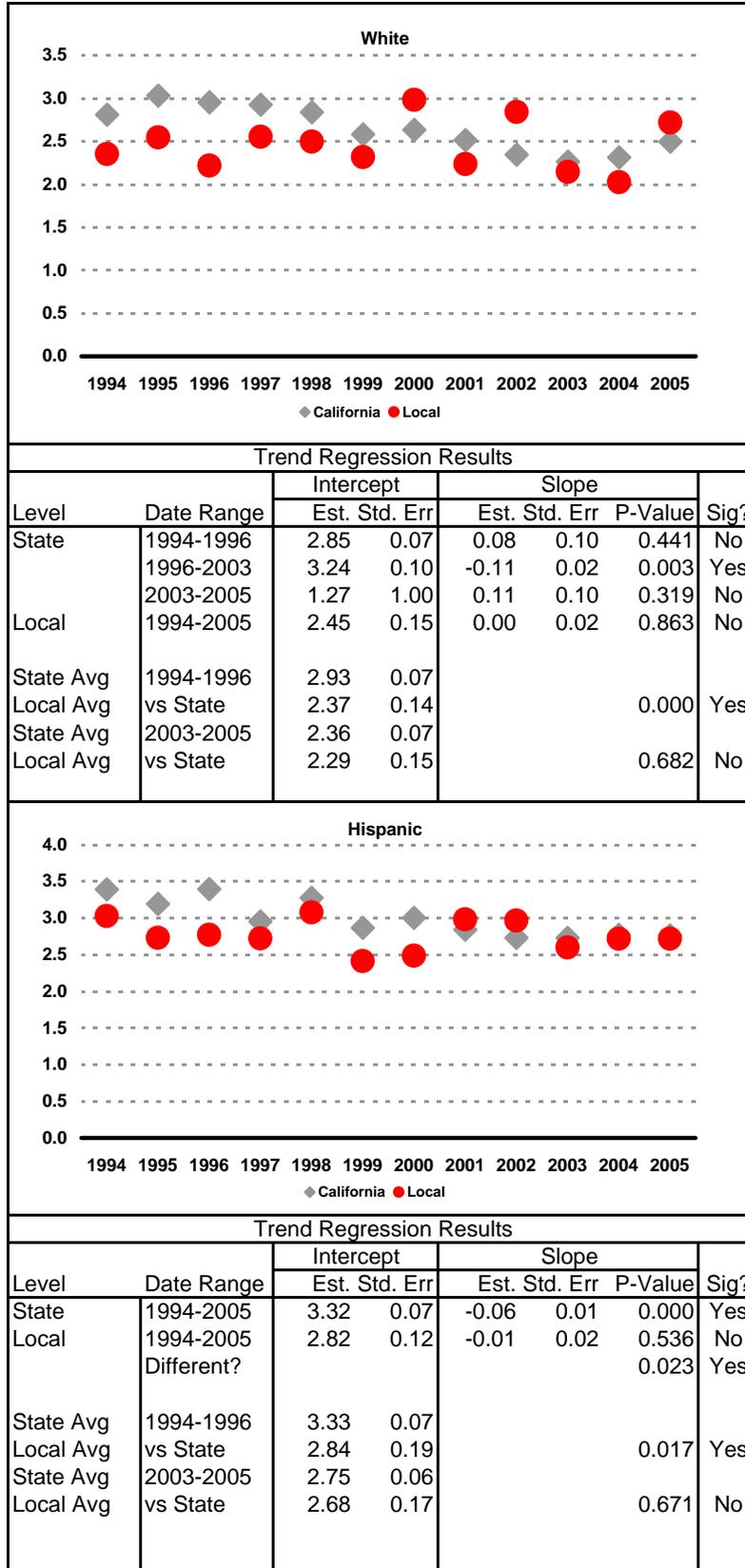
Late Fetal Death Rate Trends by Race/Ethnicity
BAY AREA



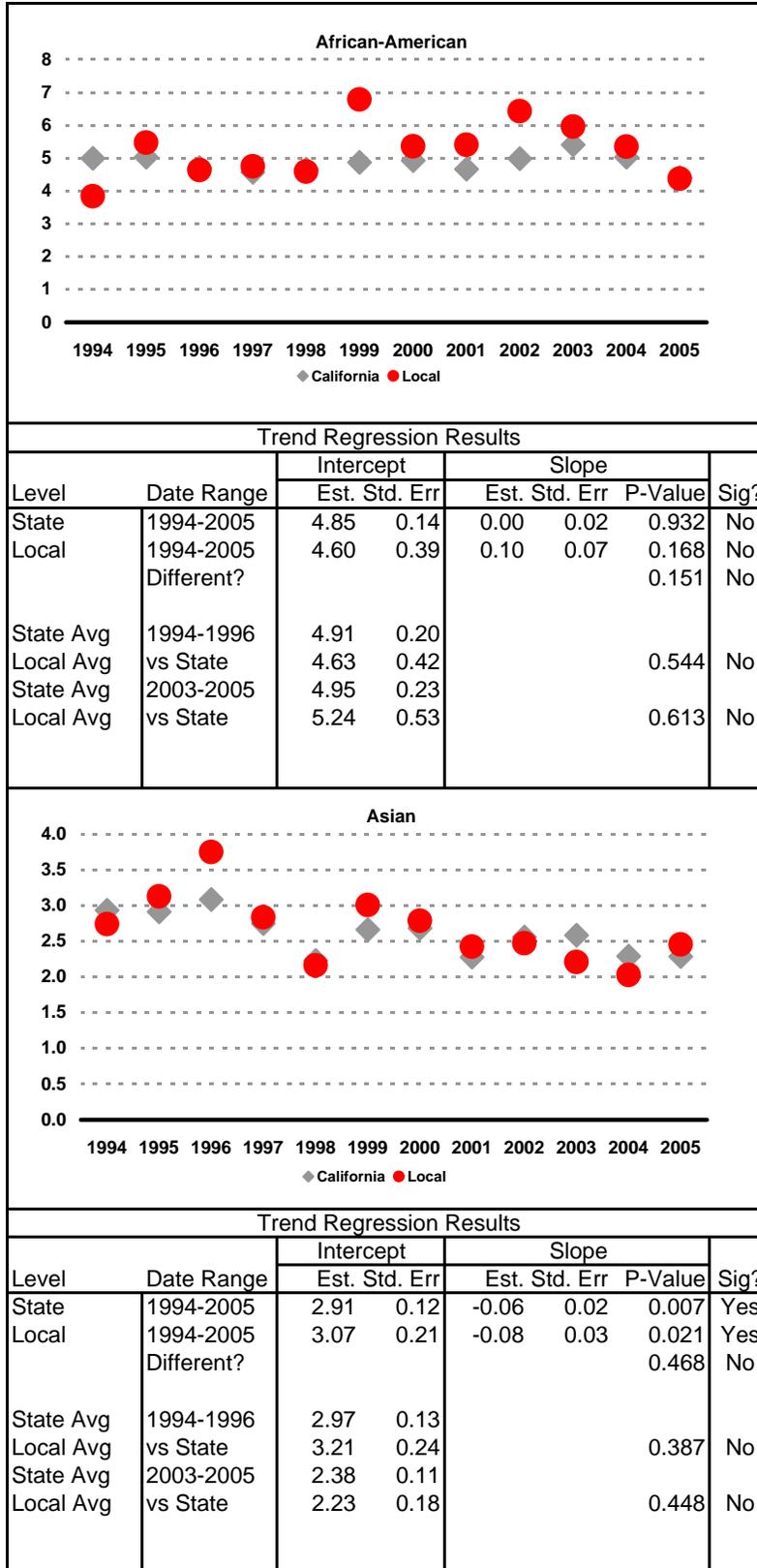
Trend Regression Results

Level	Date Range	Intercept		Slope			Sig?
		Est.	Std. Err	Est.	Std. Err	P-Value	
State	1994-2005	3.27	0.04	-0.06	0.01	0.000	Yes
Local	1994-2005	2.93	0.09	-0.02	0.01	0.100	No
	Different?					0.017	Yes
State Avg	1994-1996	3.26	0.04				
Local Avg	vs State	2.89	0.10			0.001	Yes
State Avg	2003-2005	2.71	0.04				
Local Avg	vs State	2.58	0.09			0.217	No

Late Fetal Death Rate Trends by Race/Ethnicity BAY AREA



Late Fetal Death Rate Trends by Race/Ethnicity BAY AREA



Early Neonatal Death Rate Trends by Race/Ethnicity

BAY AREA

- DEFINITION:** The number of infant deaths occurring at 0-6 days of age per 1,000 live births
- NUMERATOR:** The number of infant deaths occurring at 0-6 days of age, by place of residence in a calendar year
- DENOMINATOR:** The total number of live births, by place of residence in a calendar year
- HP 2010 OBJECTIVE:** None
- RISK FACTORS:** Congenital malformations, deformations and chromosomal abnormalities. Disorders related to short gestation and low birth weight, maternal complications of pregnancy, insurance, poverty, maternal substance abuse, quality of hospital care

TOTAL POPULATION									
Year	California				Local				
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.	
1994	1,968	3.5	3.3	3.6	269	2.8	2.5	3.2	
1995	1,692	3.1	2.9	3.2	216	2.3	2.0	2.6	
1996	1,612	3.0	2.9	3.1	242	2.6	2.3	2.9	
1997	1,614	3.1	2.9	3.2	270	2.9	2.6	3.3	
1998	1,615	3.1	3.0	3.3	241	2.6	2.3	2.9	
1999	1,478	2.9	2.7	3.0	228	2.5	2.2	2.8	
2000	1,539	2.9	2.8	3.0	248	2.5	2.2	2.9	
2001	1,490	2.8	2.7	3.0	211	2.2	1.9	2.5	
2002	1,546	2.9	2.8	3.1	234	2.4	2.1	2.8	
2003	1,514	2.8	2.7	2.9	211	2.2	1.9	2.5	
2004	1,514	2.8	2.6	2.9	211	2.2	1.9	2.5	
2005	1,514	2.8	2.6	2.9	211	2.2	1.9	2.5	

- Sources:** **Definition:** <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/infantmort/infantmort.htm> last accessed 10 Apr 06.
- Numerator:** California Center for Health Statistics, Vital Statistics, Death Statistical Master File. To order: <http://www.dhs.ca.gov/hisp/chs/OHIR/Catalog/DataCatalog.htm>. Last accessed 20 Apr 05.
- Denominator:** California Center for Health Statistics, Vital Statistics, Births Statistical Master File. To order: <http://www.dhs.ca.gov/hisp/chs/OHIR/Catalog/DataCatalog.htm>. Last accessed 19 Apr 05.

Recommended Tables: *Can be analyzed using linked birth-death records*

- Births by mother's race/ethnicity -- Review Fertility Birth Rate Tables
- Births by mother's age
- Births by mother's education
- Births by geographic area (ZIP code, if available)
- Map of distribution of births by geographic area (ZIP code)
- Births by parity
- Births by method of payment for prenatal care (if available)

Notes: C.L. = Confidence Limit - the boundary for the confidence interval.

Early Neonatal Death Rate Trends by Race/Ethnicity

BAY AREA

WHITE POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	661	3.2	3.0	3.4	120	2.9	2.4	3.4
1995	546	2.8	2.5	3.0	70	1.7	1.4	2.2
1996	552	2.9	2.7	3.2	93	2.4	1.9	2.9
1997	516	2.9	2.6	3.1	104	2.7	2.2	3.3
1998	478	2.7	2.4	2.9	79	2.1	1.7	2.6
1999	432	2.5	2.2	2.7	64	1.7	1.4	2.2
2000	469	2.7	2.5	2.9	90	2.4	2.0	3.0
2001	466	2.7	2.5	3.0	75	2.1	1.7	2.6
2002	496	2.9	2.7	3.2	91	2.6	2.1	3.2
2003	438	2.5	2.3	2.8	76	2.1	1.7	2.7
2004	438	2.6	2.3	2.8	76	2.2	1.8	2.8
2005	438	2.6	2.4	2.9	76	2.3	1.8	2.8

HISPANIC POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	844	3.3	3.1	3.5	66	2.6	2.0	3.3
1995	756	3.0	2.8	3.2	61	2.4	1.9	3.1
1996	690	2.7	2.5	2.9	70	2.6	2.1	3.3
1997	721	2.9	2.7	3.1	83	3.1	2.5	3.8
1998	766	3.1	2.9	3.3	74	2.7	2.2	3.4
1999	706	2.8	2.6	3.0	77	2.8	2.2	3.5
2000	737	2.9	2.7	3.1	86	2.9	2.4	3.6
2001	695	2.7	2.5	2.9	60	2.0	1.5	2.6
2002	739	2.8	2.6	3.0	83	2.7	2.2	3.4
2003	759	2.8	2.6	3.0	67	2.2	1.7	2.8
2004	759	2.8	2.6	3.0	67	2.2	1.7	2.8
2005	759	2.7	2.5	2.9	67	2.1	1.7	2.7

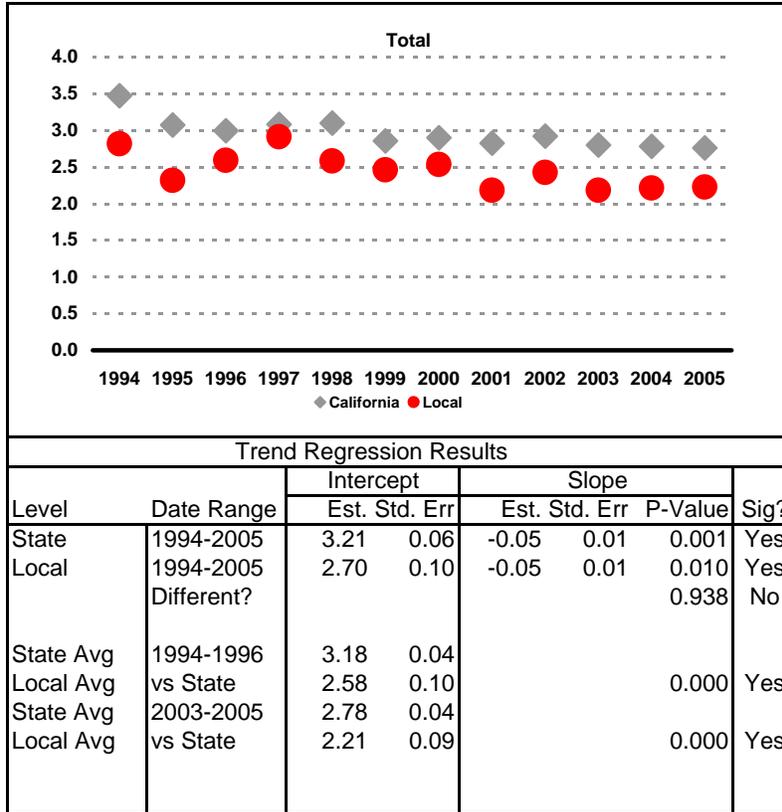
Early Neonatal Death Rate Trends by Race/Ethnicity

BAY AREA

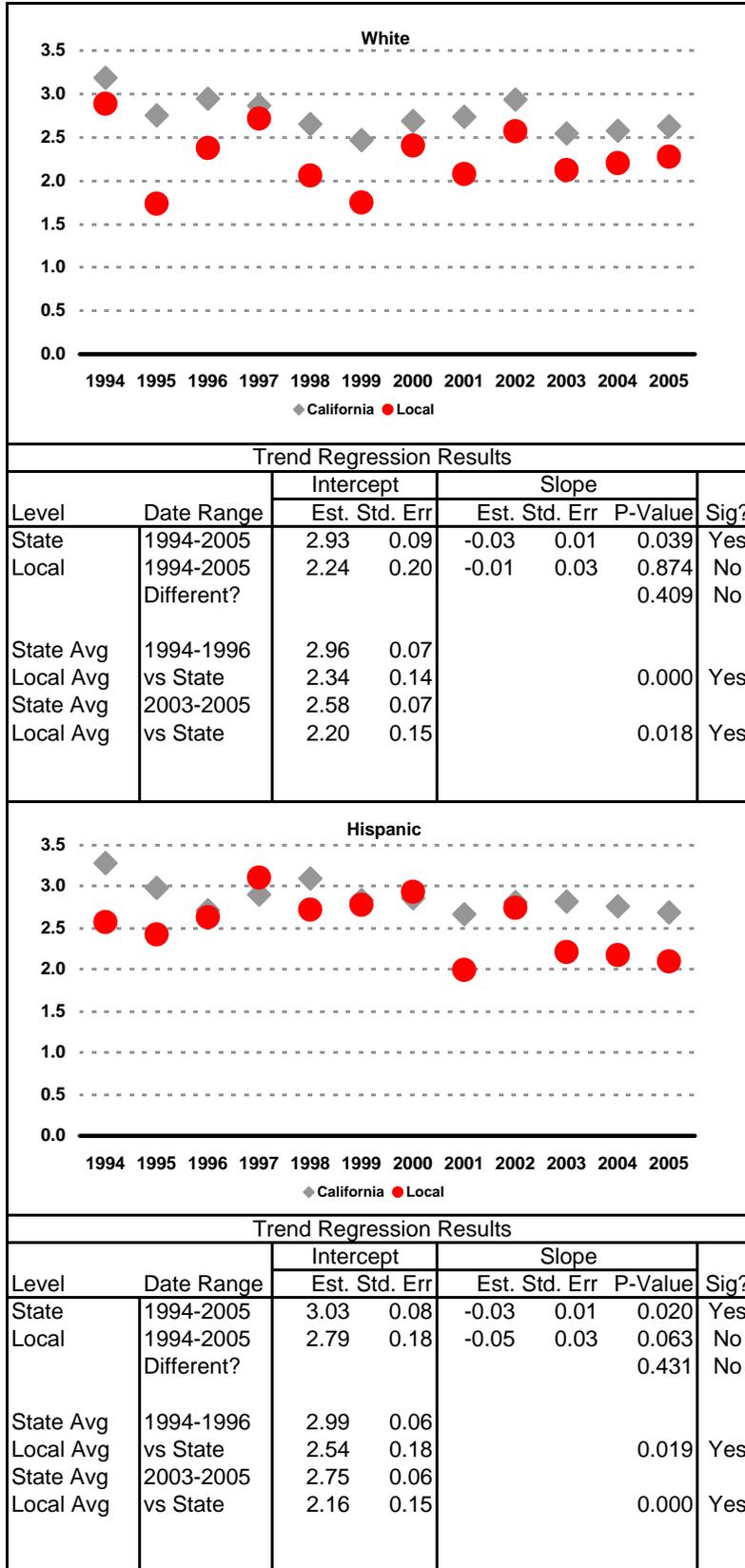
AFRICAN-AMERICAN POPULATION									
Year	California				Local				
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.	
1994	332	8.0	7.2	8.9	40	4.3	3.1	5.8	
1995	260	6.6	5.9	7.5	47	5.4	4.1	7.2	
1996	238	6.4	5.7	7.3	45	5.5	4.1	7.4	
1997	261	7.3	6.4	8.2	50	6.3	4.8	8.3	
1998	234	6.6	5.9	7.6	41	5.4	4.0	7.3	
1999	222	6.5	5.7	7.4	47	6.3	4.7	8.4	
2000	211	6.3	5.5	7.2	27	3.7	2.6	5.4	
2001	214	6.6	5.8	7.5	37	5.3	3.8	7.3	
2002	191	6.1	5.3	7.0	27	4.1	2.8	5.9	
2003	188	6.1	5.3	7.0	23	3.6	2.4	5.4	
2004	188	6.2	5.4	7.1	23	3.7	2.5	5.6	
2005	188	6.2	5.3	7.1	23	3.9	2.6	5.8	

ASIAN POPULATION									
Year	California				Local				
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.	
1994	124	2.1	1.8	2.6	43	2.3	1.7	3.1	
1995	121	2.1	1.8	2.5	36	1.9	1.4	2.7	
1996	128	2.2	1.9	2.7	34	1.8	1.3	2.5	
1997	114	2.0	1.7	2.4	33	1.7	1.2	2.4	
1998	131	2.4	2.0	2.8	47	2.4	1.8	3.1	
1999	111	1.9	1.6	2.3	40	1.9	1.4	2.6	
2000	120	1.9	1.6	2.3	45	1.9	1.4	2.5	
2001	109	1.8	1.5	2.1	38	1.6	1.2	2.3	
2002	112	1.8	1.5	2.1	33	1.4	1.0	1.9	
2003	127	1.9	1.6	2.3	45	1.9	1.4	2.5	
2004	127	1.9	1.6	2.3	45	1.9	1.4	2.5	
2005	127	1.9	1.6	2.3	45	1.9	1.5	2.6	

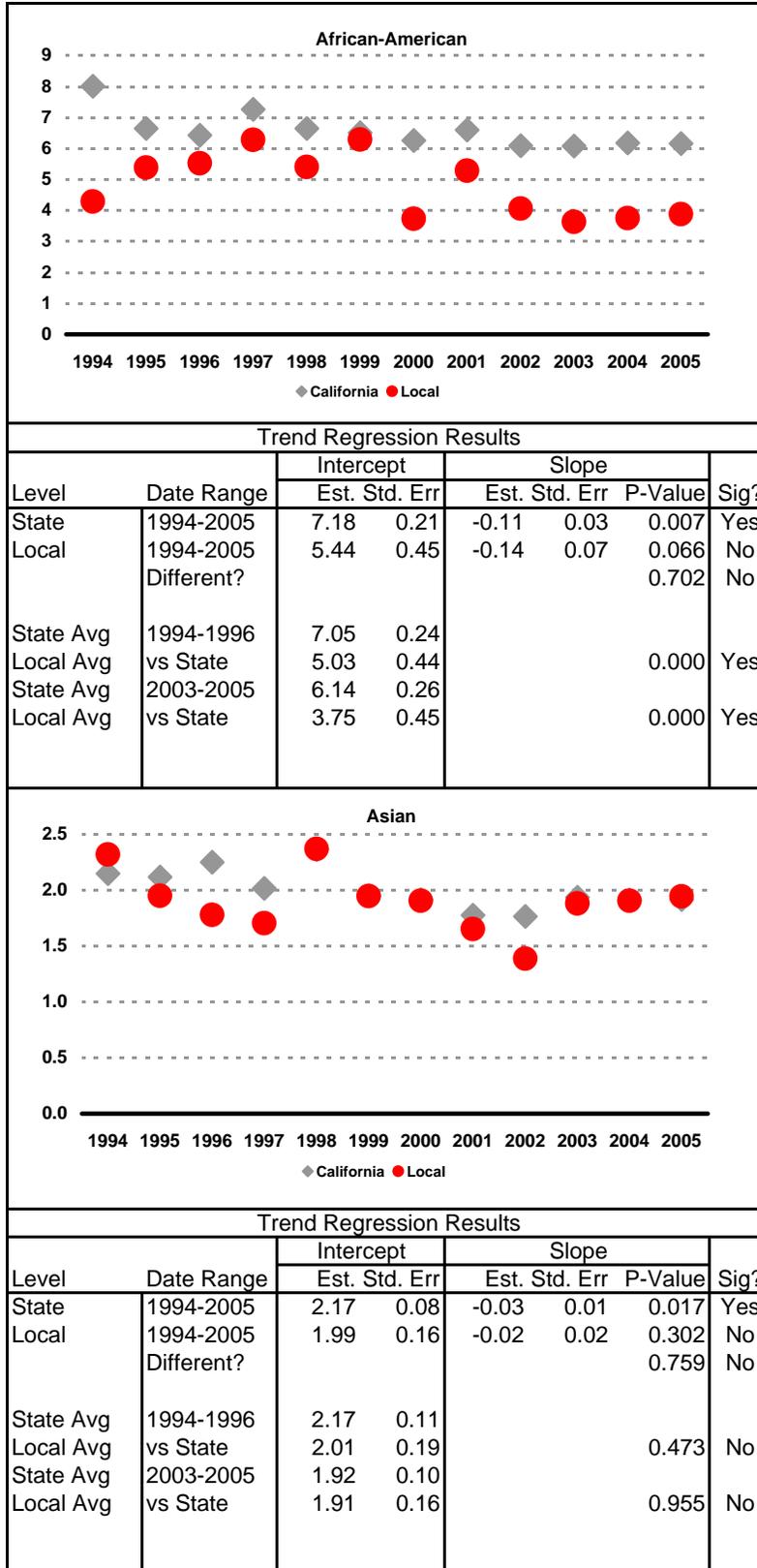
Early Neonatal Death Rate Trends by Race/Ethnicity BAY AREA



Early Neonatal Death Rate Trends by Race/Ethnicity BAY AREA



Early Neonatal Death Rate Trends by Race/Ethnicity BAY AREA



Perinatal Death Rate Trends by Race/Ethnicity

BAY AREA

- DEFINITION:** The number of late fetal deaths of 28 weeks or more gestation per 1,000 live births plus infant deaths within 7 days of birth. Perinatal mortality rate is the sum of late fetal deaths plus infant deaths within 7 days of birth divided by the sum of live births plus late fetal deaths, per 1,000 live births plus late fetal deaths. (Perinatal relates to the period surrounding the birth event. Rates and ratios are based on events reported in a calendar year.)
- NUMERATOR:** The number of late fetal deaths of 28 weeks or more gestation plus infant deaths within 7 days of birth, by place of residence, in a calendar year
- DENOMINATOR:** The total number of live births plus late fetal deaths, by place of residence, in a calendar year
- HP 2010 OBJECTIVE:** **16.1B.** Reduce the fetal and infant deaths during perinatal period (28 or more weeks of gestation to 7 days or more after birth) to no more than 4.5 per 1,000 live births plus fetal deaths. (Baseline: 7.5 per 1,000 live births plus fetal deaths in 1997)
- RISK FACTORS:** Congenital malformations, deformations and chromosomal abnormalities. Disorders related to short gestation and low birth weight, maternal complications of pregnancy, insurance, poverty, maternal substance abuse, quality of hospital care

TOTAL POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	3,818	6.7	6.5	6.9	532	5.6	5.1	6.0
1995	3,480	6.3	6.1	6.5	497	5.3	4.9	5.8
1996	3,393	6.3	6.1	6.5	515	5.5	5.0	6.0
1997	3,203	6.1	5.9	6.3	534	5.7	5.3	6.2
1998	3,236	6.2	6.0	6.4	501	5.3	4.9	5.8
1999	2,971	5.7	5.5	5.9	494	5.3	4.9	5.8
2000	3,113	5.8	5.6	6.1	538	5.5	5.0	6.0
2001	2,961	5.6	5.4	5.8	477	4.9	4.5	5.4
2002	2,989	5.6	5.4	5.8	527	5.4	5.0	5.9
2003	2,993	5.5	5.3	5.7	458	4.7	4.3	5.2
2004	2,987	5.5	5.3	5.7	446	4.7	4.2	5.1
2005	3,002	5.5	5.3	5.7	472	5.0	4.5	5.4

- Sources:** **Definition:** <http://www.cdc.gov/nchs/dataawh/nchsdefs/rates.htm#perinatal> last accessed 10 Apr 06.
Numerator: California Center for Health Statistics, Vital Statistics, Fetal Death Statistical Master File and Death Statistical Master File. To order: <http://www.dhs.ca.gov/hisp/chs/OHIR/Catalog/DataCatalog.htm>. Last accessed 20 Apr 05.
Denominator: California Center for Health Statistics, Vital Statistics, Births Statistical Master File and Fetal Death Statistical Master File. To order:

Recommended Tables: *Can be analyzed using linked birth-death records*

- Births by mother's race/ethnicity -- Review Fertility Birth Rate Tables
- Births by mother's age
- Births by mother's education
- Births by geographic area (ZIP code, if available)
- Map of distribution of births by geographic area (ZIP code)
- Births by parity
- Births by method of payment for prenatal care (if available)

Notes: C.L. = Confidence Limit - the boundary for the confidence interval.

Perinatal Death Rate Trends by Race/Ethnicity
BAY AREA

WHITE POPULATION									
Year	California				Local				
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.	Upper C.L.
1994	1,246	6.0	5.7	6.3	218	5.2	4.6	6.0	
1995	1,149	5.8	5.5	6.1	173	4.3	3.7	5.0	
1996	1,107	5.9	5.6	6.2	180	4.6	4.0	5.3	
1997	1,045	5.8	5.4	6.1	202	5.3	4.6	6.0	
1998	991	5.5	5.2	5.8	175	4.6	3.9	5.3	
1999	885	5.0	4.7	5.4	149	4.1	3.5	4.8	
2000	930	5.3	5.0	5.7	202	5.4	4.7	6.2	
2001	895	5.2	4.9	5.6	156	4.3	3.7	5.0	
2002	893	5.3	4.9	5.6	192	5.4	4.7	6.2	
2003	829	4.8	4.5	5.1	153	4.3	3.6	5.0	
2004	832	4.9	4.6	5.2	146	4.2	3.6	5.0	
2005	855	5.1	4.8	5.5	167	5.0	4.3	5.8	

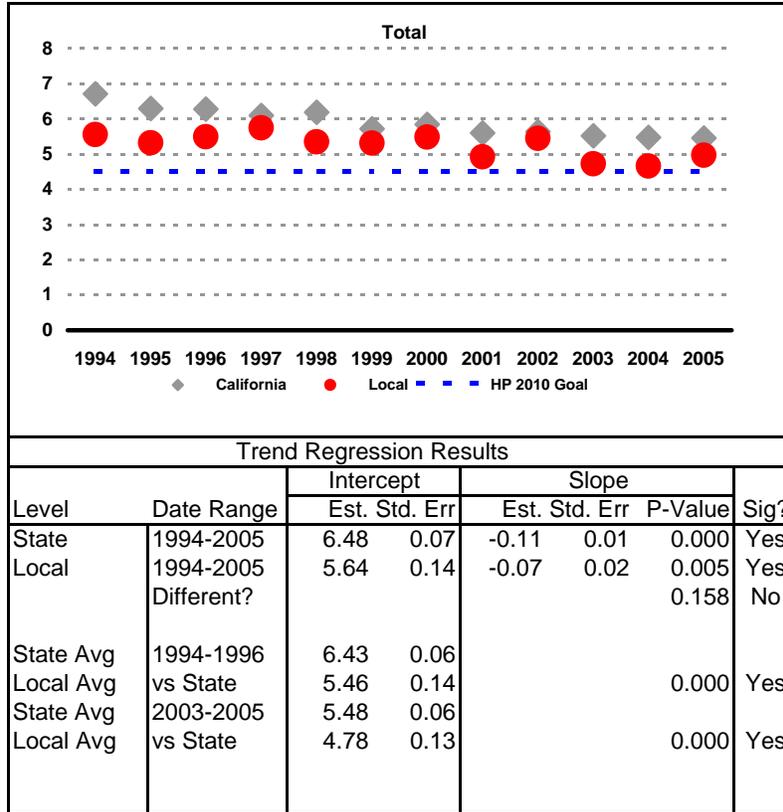
HISPANIC POPULATION									
Year	California				Local				
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.	Upper C.L.
1994	1,720	6.7	6.4	7.0	144	5.6	4.7	6.6	
1995	1,568	6.2	5.9	6.5	130	5.1	4.3	6.1	
1996	1,557	6.1	5.8	6.4	144	5.4	4.6	6.3	
1997	1,457	5.8	5.5	6.1	156	5.8	5.0	6.8	
1998	1,580	6.4	6.1	6.7	158	5.8	5.0	6.8	
1999	1,422	5.7	5.4	6.0	144	5.2	4.4	6.1	
2000	1,513	5.8	5.6	6.1	159	5.4	4.6	6.3	
2001	1,438	5.5	5.2	5.8	150	5.0	4.2	5.8	
2002	1,459	5.5	5.3	5.8	173	5.7	4.9	6.6	
2003	1,497	5.5	5.3	5.8	146	4.8	4.1	5.6	
2004	1,523	5.5	5.2	5.8	151	4.9	4.2	5.7	
2005	1,542	5.4	5.2	5.7	154	4.8	4.1	5.6	

Perinatal Death Rate Trends by Race/Ethnicity
BAY AREA

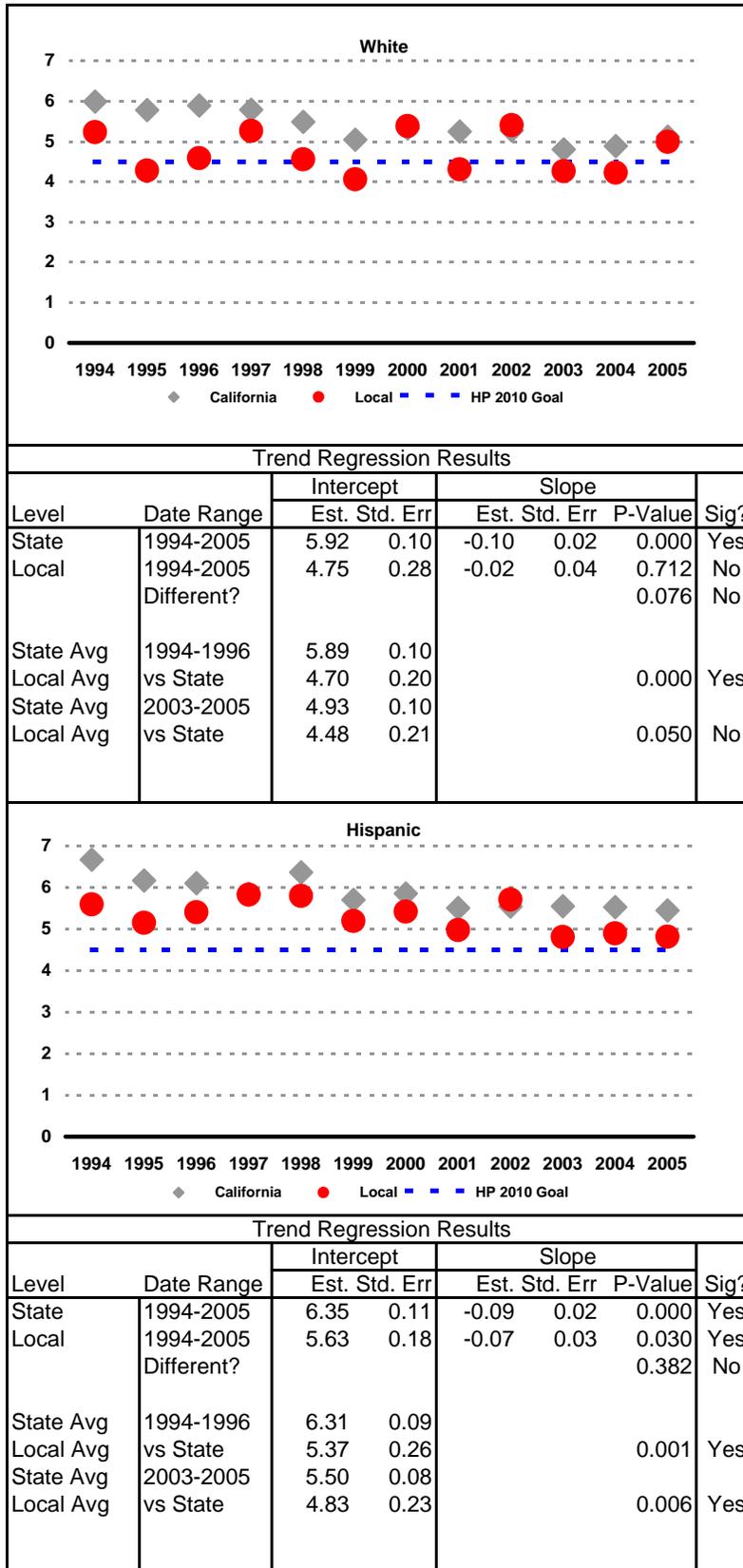
AFRICAN-AMERICAN POPULATION									
Year	California				Local				
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.	Upper C.L.
1994	540	13.0	11.9	14.1	76	8.1	6.5	10.1	
1995	458	11.6	10.6	12.7	95	10.8	8.9	13.2	
1996	413	11.1	10.1	12.2	83	10.1	8.2	12.5	
1997	426	11.8	10.7	13.0	88	11.0	8.9	13.5	
1998	399	11.3	10.2	12.4	76	10.0	8.0	12.5	
1999	389	11.3	10.3	12.5	98	13.0	10.7	15.8	
2000	378	11.1	10.1	12.3	66	9.1	7.1	11.5	
2001	366	11.2	10.1	12.4	75	10.7	8.5	13.3	
2002	348	11.0	9.9	12.2	70	10.5	8.3	13.2	
2003	356	11.5	10.3	12.7	61	9.6	7.5	12.3	
2004	342	11.2	10.1	12.4	56	9.1	7.0	11.8	
2005	323	10.5	9.5	11.7	49	8.2	6.2	10.9	

ASIAN POPULATION									
Year	California				Local				
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.	Upper C.L.
1994	294	5.1	4.5	5.7	94	5.0	4.1	6.2	
1995	288	5.0	4.5	5.6	94	5.1	4.1	6.2	
1996	304	5.3	4.8	6.0	106	5.5	4.6	6.7	
1997	270	4.8	4.2	5.4	88	4.5	3.7	5.6	
1998	255	4.6	4.1	5.2	90	4.5	3.7	5.6	
1999	263	4.6	4.1	5.2	102	4.9	4.1	6.0	
2000	289	4.6	4.1	5.1	111	4.7	3.9	5.6	
2001	249	4.0	3.6	4.6	94	4.1	3.3	5.0	
2002	275	4.3	3.8	4.9	92	3.9	3.1	4.7	
2003	297	4.5	4.0	5.1	98	4.1	3.3	5.0	
2004	280	4.2	3.7	4.7	93	3.9	3.2	4.8	
2005	279	4.2	3.7	4.7	102	4.4	3.6	5.3	

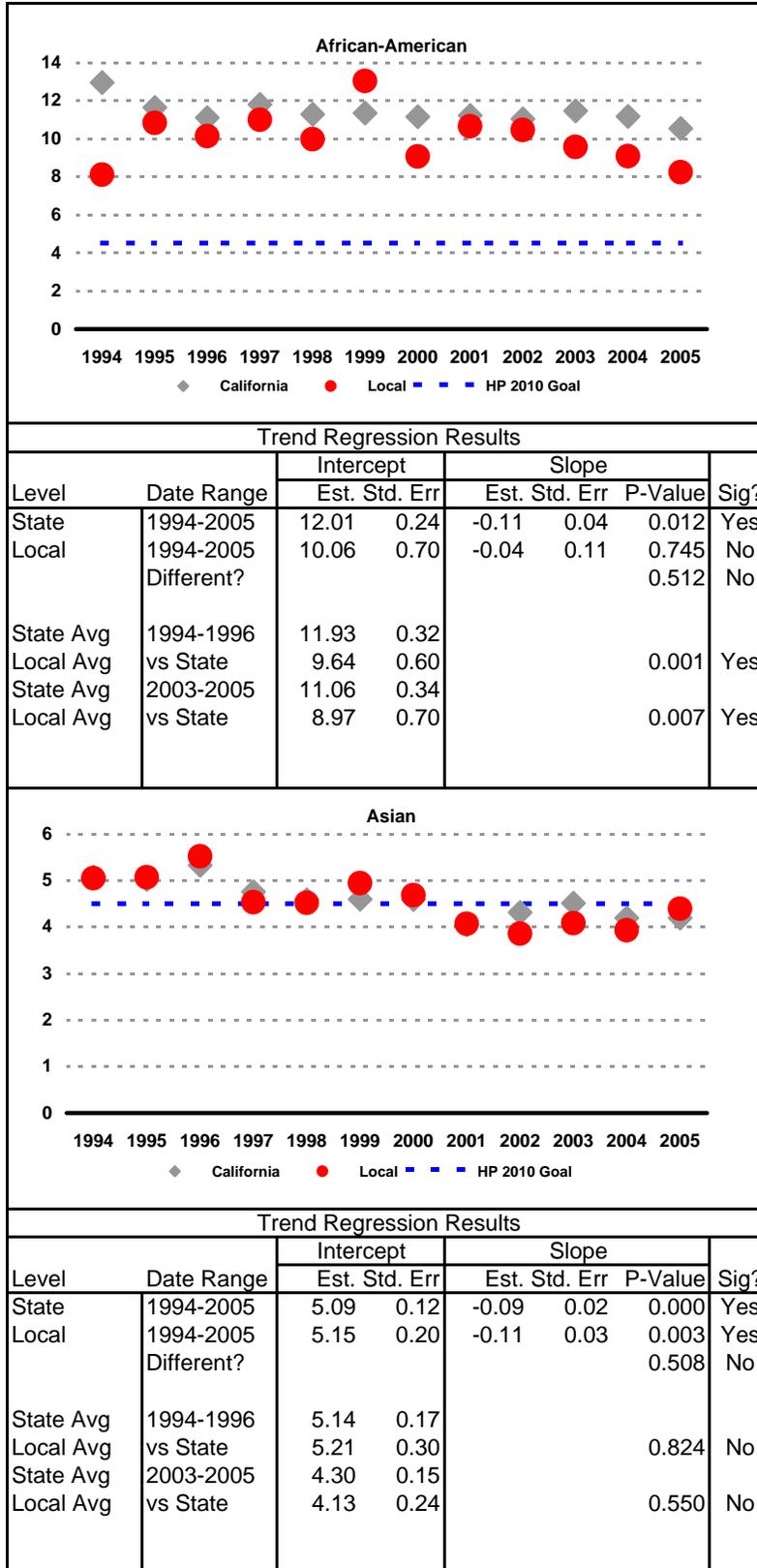
Perinatal Death Rate Trends by Race/Ethnicity BAY AREA



Perinatal Death Rate Trends by Race/Ethnicity BAY AREA



Perinatal Death Rate Trends by Race/Ethnicity BAY AREA



Perinatal Death Ratio Trends by Race/Ethnicity

BAY AREA

- DEFINITION:** The sum of late fetal deaths plus infant deaths within 7 days of birth divided by the number of live births, per 1,000 live births.
- NUMERATOR:** The number of late fetal deaths of 28 weeks or more gestation plus infant deaths within 7 days of birth, by place of residence, in a calendar year
- DENOMINATOR:** The total number of live births, by place of residence, in a calendar year
- HP 2010 OBJECTIVE:** None
- RISK FACTORS:** Congenital malformations, deformations and chromosomal abnormalities. Disorders related to short gestation and low birth weight, maternal complications of pregnancy, insurance, poverty, maternal substance abuse.

TOTAL POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	3,818	6.7	6.5	6.9	532	5.6	5.1	6.1
1995	3,480	6.3	6.1	6.5	497	5.3	4.9	5.8
1996	3,393	6.3	6.1	6.5	515	5.5	5.1	6.0
1997	3,203	6.1	5.9	6.3	534	5.8	5.3	6.3
1998	3,236	6.2	6.0	6.4	501	5.4	4.9	5.9
1999	2,971	5.7	5.5	5.9	494	5.3	4.9	5.8
2000	3,113	5.9	5.7	6.1	538	5.5	5.0	6.0
2001	2,961	5.6	5.4	5.8	477	4.9	4.5	5.4
2002	2,989	5.6	5.4	5.9	527	5.5	5.0	5.9
2003	2,993	5.5	5.3	5.7	458	4.7	4.3	5.2
2004	2,987	5.5	5.3	5.7	446	4.7	4.3	5.1
2005	3,002	5.5	5.3	5.7	472	5.0	4.6	5.5

- Sources:** **Definition:** <http://www.cdc.gov/nchs/datawh/nchsdefs/rates.htm#perimortratio>. Last accessed 10 Apr 06.
- Numerator:** California Center for Health Statistics, Vital Statistics, Fetal Death Statistical Master File and Death Statistical Master File. To order: <http://www.dhs.ca.gov/hisp/chs/OHIR/Catalog/DataCatalog.htm>. Last accessed 20 Apr 05.
- Denominator:** California Center for Health Statistics, Vital Statistics, Births Statistical Master File. To order: <http://www.dhs.ca.gov/hisp/chs/OHIR/Catalog/DataCatalog.htm>. Last accessed 19 Apr 05.

Recommended Tables: *Can be analyzed using linked birth-death records*

- Births by mother's race/ethnicity -- Review Fertility Birth Rate Tables
- Births by mother's age
- Births by mother's education
- Births by geographic area (ZIP code, if available)
- Map of distribution of births by geographic area (ZIP code)
- Births by parity
- Births by method of payment for prenatal care (if available)

- Notes:** Perinatal relates to the period surrounding the birth event. Rates and ratios are based on events reported in a calendar year.
C.L. = Confidence Limit - the boundary for the confidence interval.

Perinatal Death Ratio Trends by Race/Ethnicity

BAY AREA

WHITE POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	1,246	6.0	5.7	6.3	218	5.2	4.6	6.0
1995	1,149	5.8	5.5	6.1	173	4.3	3.7	5.0
1996	1,107	5.9	5.6	6.3	180	4.6	4.0	5.3
1997	1,045	5.8	5.5	6.2	202	5.3	4.6	6.0
1998	991	5.5	5.2	5.9	175	4.6	3.9	5.3
1999	885	5.1	4.7	5.4	149	4.1	3.5	4.8
2000	930	5.3	5.0	5.7	202	5.4	4.7	6.2
2001	895	5.3	4.9	5.6	156	4.3	3.7	5.0
2002	893	5.3	5.0	5.6	192	5.4	4.7	6.2
2003	829	4.8	4.5	5.2	153	4.3	3.6	5.0
2004	832	4.9	4.6	5.2	146	4.2	3.6	5.0
2005	855	5.1	4.8	5.5	167	5.0	4.3	5.8

HISPANIC POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	1,720	6.7	6.4	7.0	144	5.6	4.8	6.6
1995	1,568	6.2	5.9	6.5	130	5.2	4.3	6.1
1996	1,557	6.1	5.8	6.4	144	5.4	4.6	6.4
1997	1,457	5.9	5.6	6.2	156	5.8	5.0	6.8
1998	1,580	6.4	6.1	6.7	158	5.8	5.0	6.8
1999	1,422	5.7	5.4	6.0	144	5.2	4.4	6.1
2000	1,513	5.9	5.6	6.2	159	5.4	4.6	6.3
2001	1,438	5.5	5.2	5.8	150	5.0	4.2	5.8
2002	1,459	5.5	5.3	5.8	173	5.7	4.9	6.6
2003	1,497	5.6	5.3	5.8	146	4.8	4.1	5.7
2004	1,523	5.5	5.3	5.8	151	4.9	4.2	5.7
2005	1,542	5.5	5.2	5.7	154	4.8	4.1	5.6

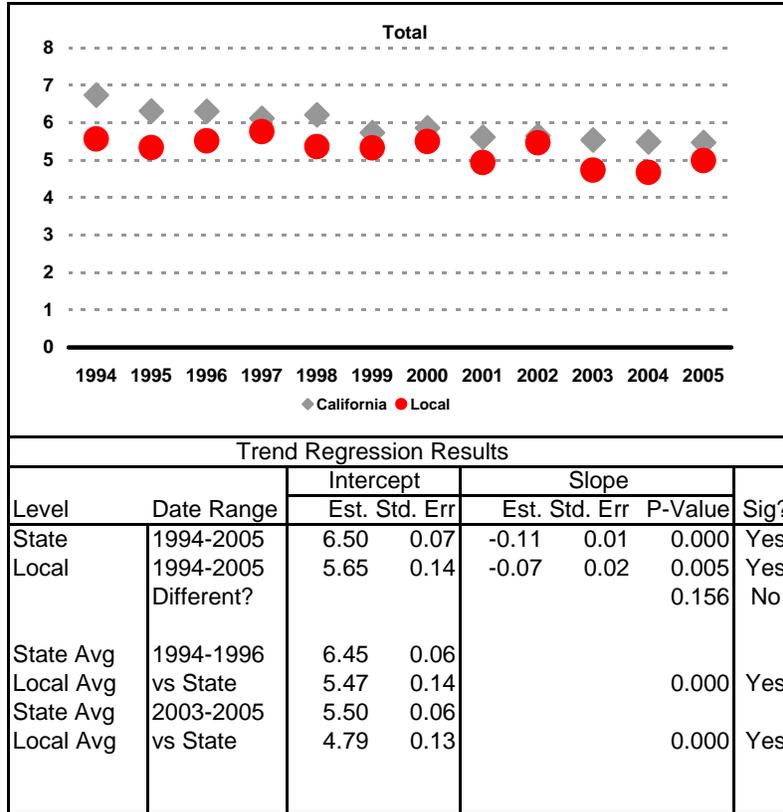
Perinatal Death Ratio Trends by Race/Ethnicity

BAY AREA

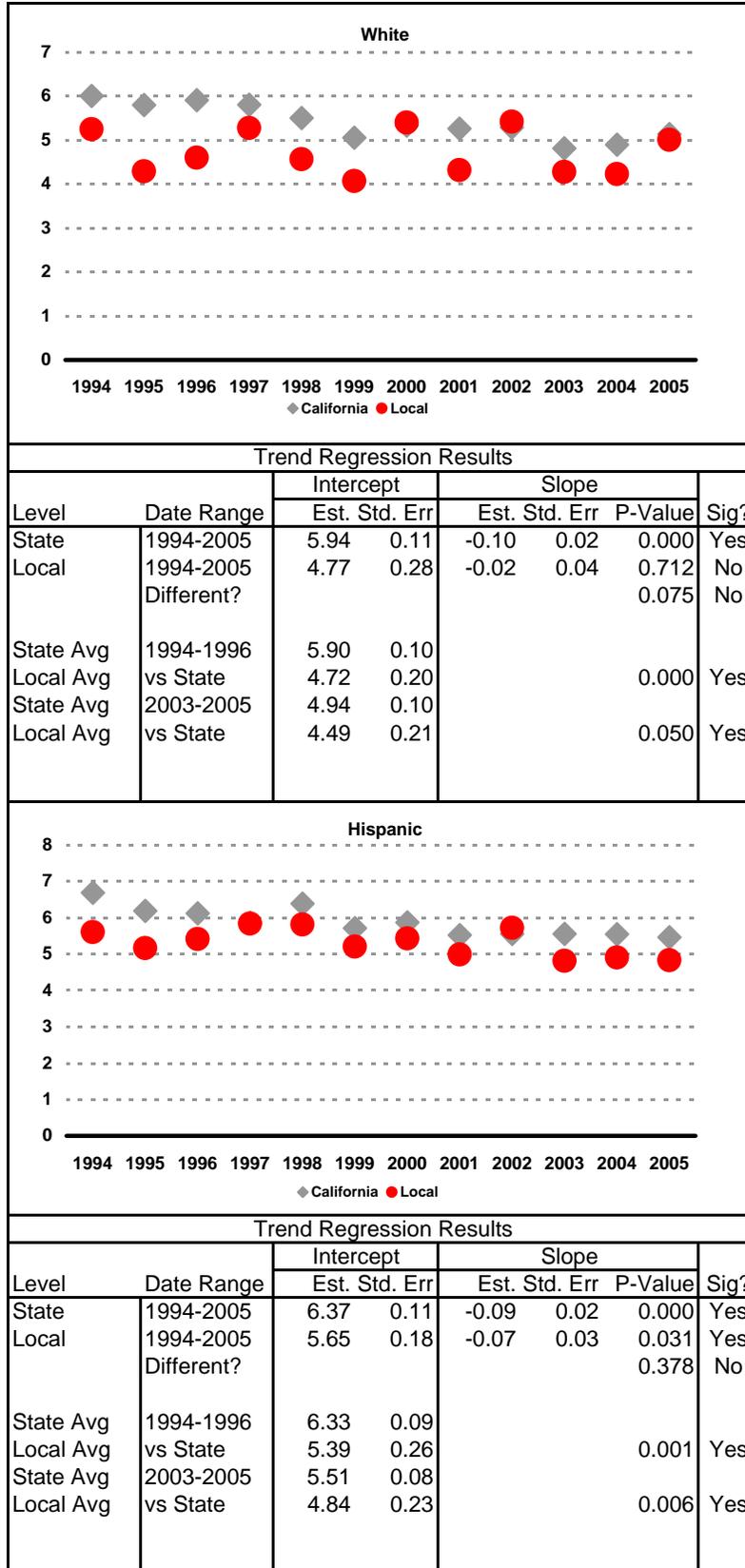
AFRICAN-AMERICAN POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	540	13.0	12.0	14.2	76	8.1	6.5	10.2
1995	458	11.7	10.7	12.8	95	10.9	8.9	13.3
1996	413	11.2	10.1	12.3	83	10.2	8.2	12.6
1997	426	11.8	10.8	13.0	88	11.0	9.0	13.6
1998	399	11.3	10.3	12.5	76	10.0	8.0	12.5
1999	389	11.4	10.3	12.6	98	13.1	10.8	16.0
2000	378	11.2	10.1	12.4	66	9.1	7.2	11.6
2001	366	11.3	10.2	12.5	75	10.7	8.6	13.4
2002	348	11.1	10.0	12.3	70	10.5	8.3	13.3
2003	356	11.5	10.4	12.8	61	9.6	7.5	12.3
2004	342	11.2	10.1	12.5	56	9.1	7.0	11.8
2005	323	10.6	9.5	11.8	49	8.3	6.3	10.9

ASIAN POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	294	5.1	4.5	5.7	94	5.1	4.1	6.2
1995	288	5.0	4.5	5.6	94	5.1	4.2	6.2
1996	304	5.3	4.8	6.0	106	5.5	4.6	6.7
1997	270	4.8	4.2	5.4	88	4.5	3.7	5.6
1998	255	4.6	4.1	5.2	90	4.5	3.7	5.6
1999	263	4.6	4.1	5.2	102	5.0	4.1	6.0
2000	289	4.6	4.1	5.2	111	4.7	3.9	5.7
2001	249	4.1	3.6	4.6	94	4.1	3.3	5.0
2002	275	4.3	3.8	4.9	92	3.9	3.1	4.7
2003	297	4.5	4.0	5.1	98	4.1	3.4	5.0
2004	280	4.2	3.7	4.7	93	3.9	3.2	4.8
2005	279	4.2	3.7	4.7	102	4.4	3.6	5.3

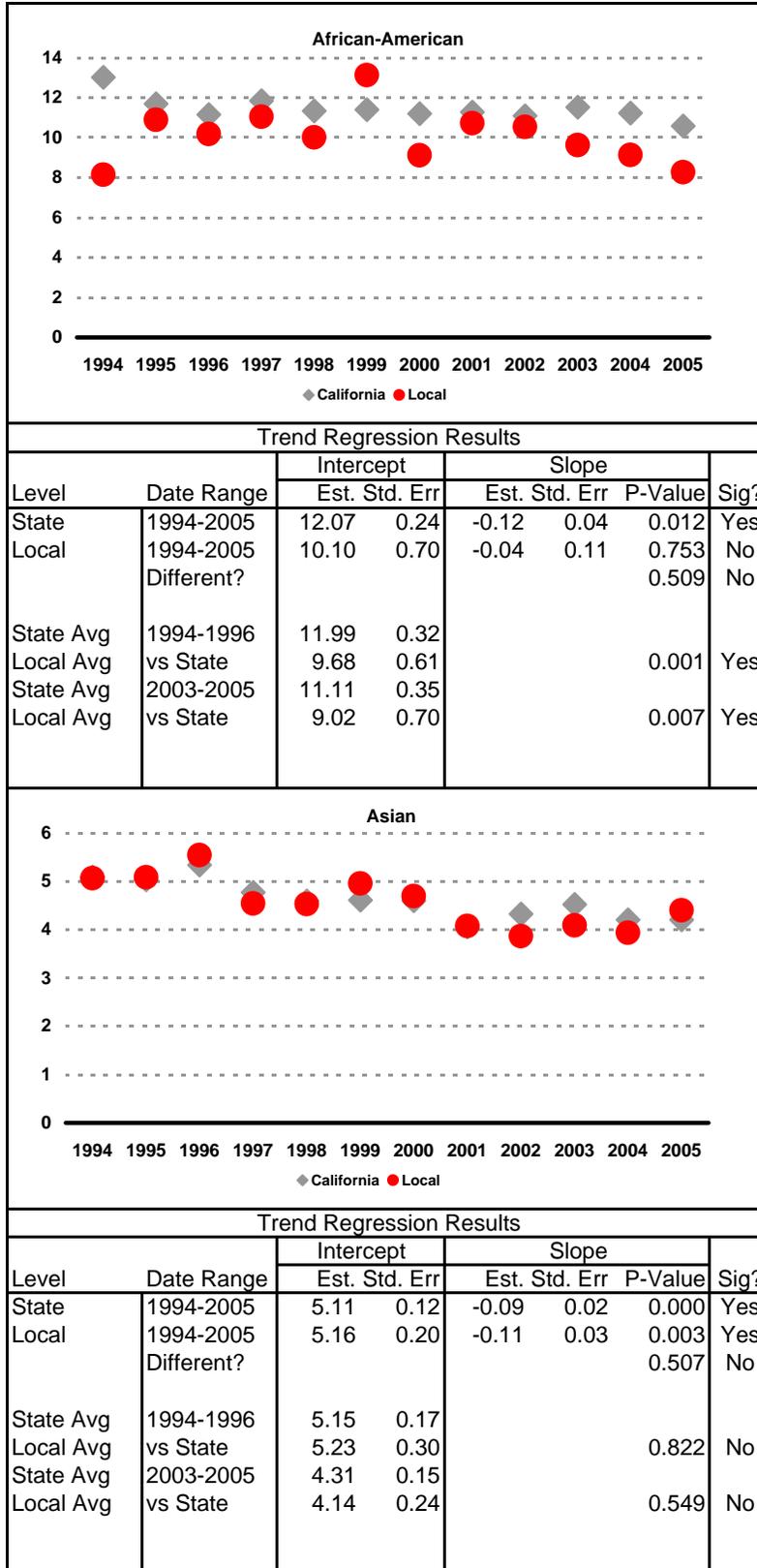
Perinatal Death Ratio Trends by Race/Ethnicity BAY AREA



Perinatal Death Ratio Trends by Race/Ethnicity BAY AREA



Perinatal Death Ratio Trends by Race/Ethnicity BAY AREA



Title V MCHA Indicators: Definitions and Data Sources

http://ucsf.edu/fhop/_htm/ca_mcah/title_v/t5_indicators.htm

1. Fertility Rates per 1,000 Females (Ages 15 to 44)

numerator # of live births	File: Fertility 1994- 2005 Location: California County MCAH Data
total # of females in specified age grp denominator	

2. Teen Birth Rate per 1,000 Females (Ages 10 to 14, 15 to 17, 18 to 19)

numerator # of births in specified age grps	File: Fertility 1994- 2005 Location: California County MCAH Data
total # of females in specified age grps denominator	

3. Percent Low Birth Weight (Live Births)

numerator # of live infants born weighing < 2500 g	File: Birthweight 1994- 2005 Location: California County MCAH Data
total # of live births denominator	

4. Percent Very Low Birth Weight (Live Births)

numerator # of live infants born weighing < 1500 g	File: Birthweight 1994- 2005 Location: California County MCAH Data
total # of live births denominator	

5. Percent Preterm Births (< 37 Wks Gestation)

numerator # of live births occurring before 37 wks	File: Birthweight 1994- 2005 Location: California County MCAH Data
total # of live births denominator	

6. Percent of Women 15-44 with Short Inter-Pregnancy Interval

numerator
of women 15-44 whose most recent singleton births occurred within 24 mos of previous live birth

total # of women 15-44 with a singleton birth
denominator

File: **Birth Interval 1994- 2005**
Location: [California County MCAH Data](#)

7. Percent of Women 12-19 with Short Inter-Pregnancy Interval

numerator
of women 12-19 whose most recent singleton births occurred within 24 mos of previous live birth

total # of women 12-19 with a singleton birth
denominator

File: **Birth Interval 1994- 2005**
Location: [California County MCAH Data](#)

8. Perinatal Death Rate per 1,000

numerator
total # of fetal and infant deaths from 20 wks gestation through 7 days after birth

total live births +
of fetal deaths
denominator

File: **Fetal Mortality 1992 - 2003**
Location: [California County MCAH Data](#)

9. Neonatal Death Rate per 1,000 Live Births (Birth to < 28 days)

numerator
of infant deaths birth to 28 days

total # of live births
denominator

File: **Infant and Youth Mortality 1992 - 2003**
Location: [California County MCAH Data](#)

10. Post-Neonatal Death Rate per 1,000 Live Births (> 28 Days to 1 Year)

numerator
of infant deaths 28 days to 1Yr

File: **Infant and Youth Mortality 1992 - 2003**
Location: [California County MCAH Data](#)

total # of live births denominator	
11. Infant Death Rate per 1,000 Live Births (Birth to 1 Year)	
numerator # of infant deaths, birth to 1 yr	File: Infant and Youth Mortality 1992 - 2003 Location: California County MCAH Data
total # of live births denominator	
12. Death Rate per 100,000 (Ages 1 to 14 and 15 to 19)	
numerator # of deaths in specified age grps	File: Infant and Youth Mortality 1992 - 2003 Location: California County MCAH Data
total population in specified age grps denominator	
13. Percent Prenatal Care in First Trimester (Live Births)	
numerator # of births to women who received prenatal care during 1st trimester	File: Prenatal Care 1994- 2005 Location: California County MCAH Data
total # of live births denominator	
14. Proportion of Women (Age 15 to 44) with Adequate Prenatal Care (Kotelchuck Index)	
numerator # of women who received adequate prenatal care	File: Prenatal Care 1994- 2005 Location: California County MCAH Data
total # of live births denominator	
15. Percent of Women Who Were Breastfeeding at the Time of Hospital Discharge	
numerator # of women who breastfeed at time of discharge	In-Hospital Breastfeeding Initiation by Maternal County of Residence, 1992 - 2002 California Department of Health Services
total # of postpartum women denominator	

16. Percent of Children and Adolescents (Ages 0 to 19) without Health Insurance

<p>numerator</p> <p># of children ages 0 to 19 without health insurance</p> <hr/> <p>total # of children ages 0 to 19</p> <p>denominator</p>	<p>Percent of Children and Adolescents without Health Insurance (ages 0-19) </p> <p>California Health Interview Survey Data</p>
--	--

17. Percent of Children (Ages 2 to 11) without Dental Insurance

<p>numerator</p> <p># without dental insurance</p> <hr/> <p>total children ages 2 to 11</p> <p>denominator</p>	<p>Percent of Children without Dental Insurance (ages 2-11) </p> <p>California Health Interview Survey Data</p>
--	--

18. Percent of Children (Ages 2 to 11) Who Have Been to the Dentist in the Past Year

<p>numerator</p> <p># of children to dentist in year</p> <hr/> <p>total children ages 2 to 11</p> <p>denominator</p>	<p>Percent of Children Who Have Been to the Dentist in the Past Year (ages 2-11) </p> <p>California Health Interview Survey Data</p>
--	--

19. Percent of Children and Adolescents (Ages 5 to 11 and 12 to 19) Who Are Overweight

<p>numerator</p> <p># overweight in age grps</p> <hr/> <p>total children in age grps</p> <p>denominator</p>	<p>Growth Indicator by Race/Ethnicity and Age by County/City 2005</p>
---	---

20. Rate of Children (Ages 0 to 4 and 5 to 18) Hospitalized for Asthma per 10,000

<p>numerator</p> <p># of hospitalizations in age grps</p> <hr/> <p># of children in age grps</p> <p>denominator</p>	<p>File: <i>Hospitalizations 1994- 2005</i> Location: California County MCAH Data</p>
---	--

21 Rate per 1,000 Females (Ages 15 to 19) with a Reported Case of Chlamydia

<p>numerator</p> <p># of cases among females in specified age grp</p>	<p>Chlamydia, Rates for Females Ages 15–19, California Counties & Selected City Health Jurisdictions, 2002 Provisional Data (.pdf) or Excel Spreadsheet (.xls)</p>
--	--

<hr/> # of females in specified age grp denominator	
22. Rate of Children (Ages 5 to 14 and 15 to 19) Hospitalized for Mental Health Reason per 10,000	
numerator # of hospitalizations in specified age grps	File: <i>Hospitalizations 1994- 2005</i> Location: California County MCAH Data
<hr/> total # in specified age grps denominator	
23. Rate of Hospitalizations for All Non-Fatal Injuries by Age Group (Ages 0 to 14 and 15 to 24) per 100,000	
numerator # of hospitalizations in age grp	File: <i>Hospitalizations 1994- 2005</i> Location: California County MCAH Data
<hr/> total # in age grp denominator	
24. Rate of Non-Fatal Injuries Due to Motor Vehicle Accidents (Ages 0 to 14 and 15 to 24) per 100,000	
numerator # of injuries in specified age grps	File: <i>Hospitalizations 1994- 2005</i> Location: California County MCAH Data
<hr/> total # in specified age grps denominator	
25. Number of Children Living in Foster Care	
numerator # of children in Foster Care by age groups and race	Child Welfare Supervised Foster Care In Care Rates, 1998 - 2006 - Maps for In Care Rates 2002 - Population Data Methodology for Rates Tables - In Care Rates Tables, 1998 - 2006 - In Care Rates by Age/Ethnicity and County, 2005
<hr/> total child population by age groups and race denominator	
26. Percent of Children (Ages 0 to 19) Living in Poverty	
numerator # of children in specified age grp living in poverty	Small Area Income and Poverty Estimates: Model-based Estimates for States, Counties, & School Districts U.S. Census Bureau Report

total # of children in specified
age grp
denominator



27. Number of Domestic Violence Related Calls for Assistance

numerator



Domestic Violence Number of Crimes
RAND California Statistics

denominator

Four decorative circles in shades of blue, purple, and yellow are arranged horizontally above the title.

Technical Guide for Using Title V 5-Year Needs Assessment Indicators Databooks 1994-2005

■ Linda L. Remy, PhD
Ted Clay, MS
Geraldine Oliva, MD MPH

December 2007



TABLE OF CONTENTS

Layout	1
Calculating Annual Rates.....	2
Example Data Quality Tab.....	3
Example Rate Tab.....	5
Displaying and Testing Trends.....	6
Appendix A: Other Statistical Issues.....	11

TABLE OF TABLES AND FIGURES

Table 1: Example Kotelchuck Index Data Quality Tab.....	3
Table 2: Fertility Rate Per 1,000 Female Population Age 15 to 17 by Race/Ethnicity.....	5
Figure 1: Fertility Rate Trend Per 1,000 Female Population Age 15 to 17.....	6
Table 3. Fertility Rate Trend Regression Results Per 1,000 Female Population Age 15 to 17....	7
Table 4. Fertility Rate Trend Regression Results Per 1,000 Female Population Age 40 to 44....	8

Suggested Citation:

Remy LL, Clay T, Oliva G. (2007) Title V 5-Year Needs Assessment Indicators: Databook 1994-2005. San Francisco, CA: University of California, San Francisco, Family Health Outcomes Project. Available at: <http://www.ucsf.edu/fhop>.

TITLE V 5-YEAR NEEDS ASSESSMENT INDICATORS DATABOOK 2005

The 2005 version of the set of Title V Indicator Databooks has changed significantly. The purpose of this document is to provide an overview of the changes and to introduce implications for using the Databooks to inform local monitoring and planning activities.

LAYOUT

The revised databook contains a minimum of four types of tabs: Data, Data Quality, Rates, and Graphs. A few databooks also have a Definition tab.

Data Tabs. As in previous years, the Data Tabs are a 2-tab set of 12 years of local jurisdiction and state data summarizing required and optional indicators. Each Data Tab presents the numerators with the appropriate denominators to calculate rates. Data presented here are the source for calculating Rates and Graphs tab for each indicator.

Definition Tab. A few indicators include a Definitions Tab to provide more specific information as to how they were calculated. These are mainly indicators using a population subset, e.g., births to mothers age 15 to 44, singleton births. In these instances, the total reported will be less than the total for the source data, e.g., all births vs. singleton births. Other indicators require adding cases from multiple data sources, e.g., births and fetal deaths. For these indicators the total number typically reported will be greater than either file independently.

The Data Quality Tab focuses on the last year in the 12-year trend. It identifies key data quality issues that may impact reliability of information used to calculate the indicator. Jurisdictions are advised to review this tab carefully to understand if underlying quality issues affect their data to such an extent that the validity of their local statistics may be compromised. Jurisdictions with proportionally more exclusions may have distorted rates due to the smaller numbers of cases used. In these cases it is difficult to know if the county truly is an outlier for the indicator or if the results are affected by a problem with the underlying data. If data quality appears to be compromised, jurisdictions are urged to be extremely careful in reporting their data.

The Rate Tab incorporates information previously available in the FHOP data templates. This table is preset to print in three pages.

Page 1 defines the indicator and its risk factors. Below this is the rate table for total cases. It may have as many as 12 or as few as no data rows, depending on the number of cases available each year. Rules for determining the number of rows are in the next section of this document. Below the rate table on page 1, we identify the data sources and additional analyses you might wish to undertake to understand your jurisdiction's performance on the indicator.

Page 2 of the rate table summarizes rates for White Non-Hispanic and Hispanic All-Race, and Page 3 summarizes results for Non-Hispanic African-American and Asian populations. We used the same rules to calculate these tables as we used for the Total table.

The Graph Tab new this year. This summarizes results of trend tests for data on the Rate Tab. As with the Rate Tab, page 1 summarizes results for all data, page 2 for White Non-Hispanic and Hispanic All-Race, and page 3 for Non-Hispanic African American and Asians. Methods for calculating trend statistics are described in Appendix A.

CALCULATING ANNUAL RATES

MINIMUM NUMBER OF EVENTS

If the minimum number of events over all years was greater than or equal to 10 in each year, the 12 years of indicator data was left as given.¹ If the minimum number of events in any period was less than 10, we aggregated the data into six 2-year periods. If the minimum still was less than ten, we aggregated into four 3-year periods. When all four 3-year periods still did not meet the minimum of 10, we declared the number of cases not big enough and did not calculate rates. These are shown on the Rates tab by the phrase "Rates not calculated." Otherwise, the Rates Tab tables show the periods, numerators, rates, and rate confidence intervals.

Given the final level of aggregation for the local data, the same aggregation was performed on the corresponding California data. Then the local and state data were merged for side-by-side presentation in the Rate Tab.

DENOMINATORS

We used two different types of denominators: Annual county-level population estimates from the California Department of Finance (DOF), and counts based on qualifying records from the birth certificates and/or fetal death certificates.

The DOF one-year age categories were summarized as needed for the indicators that use state population as their denominators. Some indicators use only certain ages in the female population for denominators, others use all population or all population in given age categories.

Some indicators have as their denominator the total number of records in a given category and file, for example from the birth certificates file, the number of women age 15 to 44 delivering a live born infant. Others need refinement: women age 15 to 44 delivering a live born singleton infant. Before deciding if a record meets the minimum qualifying condition(s), our macros check to be sure we are excluding invalid or unlikely cases (e.g., age missing, 92 year old mother, 27-month gestational age, 5 gram birthweight). We excluded cases outside allowable ranges and report their frequency on the Data Quality Table described in a later section.

BRIDGING RACE/ETHNICITY

The various datasources we used had different definitions of race/ethnicity over time. After the 2000 Census, the federal government issued bridging guidelines.² These recommend that longitudinal investigations use their recommended groupings until sufficient years are available to permit more detailed analyses of the complexities of race and ethnicity.

¹ Note that the minimum numbers we used are smaller than those suggested in FHOP's "Small Numbers Guidelines," because the focus is on longitudinal trends rather than one-year comparisons, and the statistical tests we used are based on counts rather than rates.

² Provisional Guidance on the Implementation of the 1997 Standards for Federal Data on Race and Ethnicity. Executive Office of the President, Office of Management and Budget, Washington, D.C. 20503. December 15, 2000

California requires state-funded researchers to use Department of Finance (DOF) population estimates.³ The DOF provides county-level estimates by sex and race/ethnicity, with age in 1-year intervals. Through 1999, race/ethnicity was categorized as White, Black, Hispanic (all races), Asian and Pacific Islander, and American Indian. In coding race/ethnicity, FHOP follows DOF rules. First, cases are assigned to Hispanic all-race. The remainder are assigned to White, Black, Asian/Pacific Islander, and American Indian. Groups that do not fit these classifications are assigned to White race/ethnicity. By using these categories, jurisdictions will be able to calculate population rates using DOF-calculated population estimates. FHOP does not recommend calculating statistics for the non-Hispanic American Indian/Native American. DOF rules diminish their numbers so significantly that they are not reliable.

For 2000 and later, DOF classifies race as White, Black, Hispanic, Asian, Pacific Islander, American Indian, and Multi-race. To make race/ethnic classifications compatible longitudinally, we combined the 2000-and-later race categories as follows. First, we combined Asian with Pacific Islander. Then we broke apart the Multi-race category using the DOF multi-race allocation table, which gives the percentage to allocate to each race, within each county separately.⁴ Note that the Hispanic category had no multi-race allocation because the DOF made assignment to this category before assigning to other single- or multi-race categories. Also note that the DOF allocation table was based on the 2000 census, and we use it for years later than 2000 as well, as the DOF guidelines recommend.

We did other bridging reclassifications for records in the birth, death, and fetal death certificates, and for records from the hospital discharge data in order to attain compatibility across numerator and denominator sources. This was accomplished using SAS macros. The result is five race/ethnic groups: White, Black, Hispanic All-Race, Asian, American Indian. In calculating total population rates, we include all cases, but we do not calculate rates for American Indians. Their numbers are small and we believe unreliable because of definitional issues.

CALCULATING RATES AND CONFIDENCE INTERVALS

Rates were calculated overall and for each race/ethnic group by dividing the numerator (number of events) by its appropriate denominator (population, births, deaths, etc), and multiplying the result times the appropriate factor (e.g. rate per 1000 births, etc.). The confidence interval for the rate was calculated using the Wilson score without continuity correction.^{5 6}

EXAMPLE DATA QUALITY TAB

The Data Quality Tab focuses on the numbers of cases set aside in the last year of the 12-year period for each grouped set of indicators. Table 1 presents an example of a Data Quality Tab. The top part identifies the indicator that has been pre-screened for data quality, in this case the Kotelchuck Index for Adequacy of Prenatal Care. Then it describes the implications in terms of

3 See: http://www.dof.ca.gov/html/Demograp/DRU_datafiles/DRU_datafiles.htm. Last accessed 26-Jan-2005.

4 See: <http://www.dof.ca.gov/html/demograp/MultiraceAllctns2000-2040.htm>. Last accessed 17-Mar-2005.

5 Newcombe RG. Two-sided confidence intervals for the single proportion: Comparison of seven methods. *Statist. Med.* 17, 857-872 (1998). Note that this is a different test than is recommended in FHOP's "Small Numbers Guidelines," which focuses on easy-to-calculate statistics.

6 A copy of the SAS programs we used to calculate rates and confidence intervals is available upon request.

whether a county can rely on the reasonableness of the resulting index. This table shows only those counties on the first page of the table. The column percentages do not add to 100.

Table 1: Example Kotelchuck Index Data Quality Tab

Kotelchuck Index. In 2005, 546,443 births were recorded to California resident women age 15 to 44. Statewide, 7,783 birth certificate records (1.4%) were missing one or more data elements needed to calculate the Kotelchuck Index. At the county level, an average of 1.4% of birth records (0.7% median) were missing one or more elements of the Kotelchuck Index.

Implications. Study this table carefully. If more than 0.7% (the county-level median) of your area's birth certificates were missing one or more data elements needed to calculate the Kotelchuck Index, rates will be increasingly inaccurate. Further research may be needed to find out how your area can improve its data quality. Until this is resolved, be increasingly skeptical of Kotelchuck Adequacy of Prenatal Care rates as the Area percent missing increases.

Local	Total Births		Age 15 to 44		Missing		
	Number	Percent	Number	Percent	Number	Area %	Miss %
State	548,700	100.00	546,443	100.00	7,783	1.42	100.00
1 Alameda	20,902	3.81	20,803	3.81	79	0.38	1.02
2 Alpine	15	0.00	15	0.00	0	-	-
3 Amador	288	0.05	286	0.05	1	0.35	0.01
4 Butte	2,451	0.45	2,445	0.45	23	0.94	0.30
5 Calaveras	371	0.07	370	0.07	2	0.54	0.03
6 Colusa	381	0.07	380	0.07	2	0.53	0.03
7 Contra Costa	13,143	2.40	13,093	2.40	205	1.57	2.63
8 Del Norte	327	0.06	327	0.06	2	0.61	0.03
9 El Dorado	1,930	0.35	1,922	0.35	22	1.14	0.28
10 Fresno	15,936	2.90	15,879	2.91	92	0.58	1.18
11 Glenn	431	0.08	429	0.08	7	1.63	0.09
12 Humboldt	1,598	0.29	1,595	0.29	50	3.13	0.64
13 Imperial	3,058	0.56	3,054	0.56	82	2.69	1.05
14 Inyo	205	0.04	205	0.04	0	-	-
15 Kern	14,022	2.56	13,979	2.56	1,500	10.73	19.27
16 Kings	2,554	0.47	2,548	0.47	11	0.43	0.14
17 Lake	728	0.13	726	0.13	9	1.24	0.12
18 Lassen	289	0.05	288	0.05	2	0.69	0.03
19 Los Angeles	150,377	27.41	149,677	27.39	1,449	0.97	18.62
20 Madera	2,349	0.43	2,336	0.43	20	0.86	0.26
21 Marin	2,785	0.51	2,759	0.50	1	0.04	0.01
22 Mariposa	122	0.02	121	0.02	6	4.96	0.08
23 Mendocino	1,121	0.20	1,118	0.20	6	0.54	0.08
24 Merced	4,470	0.81	4,457	0.82	251	5.63	3.22
25 Modoc	81	0.01	81	0.01	3	3.70	0.04
26 Mono	153	0.03	152	0.03	0	-	-
27 Monterey	7,501	1.37	7,480	1.37	335	4.48	4.30
28 Napa	1,658	0.30	1,652	0.30	9	0.54	0.12
29 Nevada	819	0.15	810	0.15	5	0.62	0.06

Counties with few records set aside can be more comfortable with their results than counties with more records set aside. For example, reviewing the column Missing Area %, Marin County can be relatively certain that their scores on the Kotelchuk Index are reliable. A county with more than 0.7% of their records set aside faces increasing uncertainty about their results.

EXAMPLE RATE TAB

Table 2 is an example of the Rate Tab for one indicator, in this case the number of live births per 1,000 women age 15 to 17. The top section includes definitions of the indicator, numerator, denominator, the Healthy People 2010 Objective, and risk factors associated with this indicator.

Table 2: Fertility Rate Per 1,000 Female Population Age 15 to 17 by Race/Ethnicity

DEFINITION:	The number of live births per 1,000 women age 15-17
NUMERATOR:	The number of live births to women age 15-17, by place of residence in a calendar year
DENOMINATOR:	Population of women age 15-17, by place of residence in a calendar year
HP 2010 OBJECTIVE	9-7: Reduce pregnancies among adolescents to 43 pregnancies per 1,000 (Baseline: 68 per 1,000 in 1996)
RISK FACTORS:	Not applicable

TOTAL POPULATION								
Year	California				Local			
	Births	Rate	Lower C.L.	Upper C.L.	Births	Rate	Lower C.L.	Upper C.L.
1994	26,378	42.3	41.8	42.8	853	65.9	61.7	70.3
1995	25,821	40.4	39.9	40.9	901	68.1	64.0	72.6
1996	24,047	36.4	36.0	36.9	798	58.6	54.8	62.7
1997	23,064	33.8	33.4	34.2	782	54.4	50.8	58.2
1998	21,630	31.1	30.6	31.5	766	50.2	46.8	53.8
1999	20,209	28.8	28.4	29.2	747	46.3	43.1	49.6
2000	18,887	26.6	26.2	26.9	716	42.9	39.9	46.1
2001	17,307	23.8	23.5	24.2	591	34.5	31.9	37.3
2002	16,660	22.4	22.0	22.7	636	36.2	33.6	39.1
2003	16,193	21.1	20.8	21.4	678	37.8	35.1	40.7
2004	16,263	20.6	20.3	20.9	661	36.3	33.7	39.1
2005	16,740	20.3	20.0	20.7	671	35.9	33.3	38.7

Sources: **Definition:** <http://www.cdc.gov/nchs/datawh/nchsdefs/rates.htm#birth> last accessed 18 Apr 05
Numerator: California Center for Health Statistics, Vital Statistics, Births Statistical Master File. To order: <http://www.dhs.ca.gov/hisp/chs/OHIR/Catalog/DataCatalog.htm>. Last accessed 19 Apr 05.
Denominator: 1990-1999: State of California, Department of Finance, Race/Ethnic Population with Age and Sex Detail 1990-1999. 2000-2050 Projections: State of California, Department of Finance, Race/Ethnic Population with Age and Sex Detail, 2000-2050. Sacramento, CA, May 2004. Both files available at: http://www.dof.ca.gov/html/Demograp/DRU_datafiles/DRU_datafiles.htm. Last accessed 19 Apr 05.

Recommended Tables: *Can be analyzed using EpiBC:*
 Births by mother's race/ethnicity -- Review Fertility Birth Rate Tables
 Births by mother's age
 Births by geographic area (ZIP code, if available)
 Map of distribution of births by geographic area (ZIP code)
 Births by parity

Notes: 2000-2050 Multirace/ethnic population projections must be allocated before use. See State of California, Department of Finance, Suggested Allocations of the Multirace Category for Use with Population Projections by Race/Ethnicity for California and It's Counties 2000-2050, Sacramento, California, June 2004. <http://www.dof.ca.gov/HTML/DEMOGRAP/MultiraceAllctns2000-2050.htm>. Last accessed 19 Apr 05.

C.L. = Confidence Limit = the boundary of the 95% confidence interval.

The Rate Table shows data for the total population in California and the local jurisdiction, over the most recent 12-year period for which data are available, in this case 1992 through 2003. For both California and the jurisdiction, columns indicate the number of events, the rate, and lower and upper confidence limits for that rate.

Below the rate table, we present information on the sources for the definitions of the indicator, the numerator, and the denominator. Recommended tables that can be made using EpiBC (if a birth-certificate indicator) or EpiHosp (if a discharge data indicator) are shown. Finally, we present any notes that we think are important to understand the data presented. On pages 2 and 3 of a given Rate Tab, we show the same rate-based data for the other race/ethnic groups, as described earlier.

Comparing the state and local rates and confidence intervals on Table 2, from start to end of period, we see that the local rate and its upper confidence intervals are always below the state rate. This allows us to conclude that the local rate was significantly lower than the state rate throughout the time period. In both cases, we also see that the rates appear to be dropping. This leads us to wonder if the drop in rates is statistically significant. Is the rate of change the same for the jurisdiction and state? That is, do we have a trend, and if so, is it linear or curvilinear? How does the jurisdiction compare with the state?

DISPLAYING AND TESTING TRENDS

If rates are on the Rates Tab, as for our example, we display local and state rates over the period on the Graph Tab and show results of statistical tests for trends and rate differences. If the data permit 12 years of rates, as they do here, we also test for non-linear trends.

THE TREND GRAPH

Figure 1 shows the graph made using the rates from Page 1 of the Graph Tab for our example indicator. Depending on the number of events the data allow us to calculate, a given graph might have 12, 6, 4, or no points. Note that the graphs do not include confidence intervals, which would be inappropriate for a trend test. Here, we focus on the rate of change over time rather than within a given period such as a year.

Figure 1: Fertility Rate Trend Per 1,000 Female Population Age 15 to 17

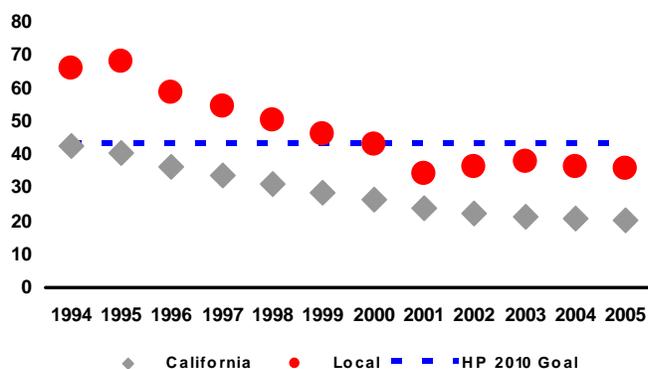


Figure 1 has 12 points, because the number of events was greater than 10 in all years. If the indicator had too few cases, the graph would be empty. Red dots (●) show the local jurisdiction rate and grey diamonds (◆) the state rate. When an indicator has a Healthy People (HP) 2010 performance objective, it is shown with a dashed blue line. For this indicator, the HP 2010 objective is 43 births per 1,000 female population age 15 to 17.

STATISTICAL TESTS

We evaluated the indicator data on the rate tab two ways. First, we evaluated it to see if the trend we see is statistically significant. The emphasis here is on the rate of change over time, asking in essence if the local jurisdiction is changing at a rate similar to or different from the state and in what direction. Second, we tested if the local jurisdiction rate is significantly different from the state at the start and end of our time period. The emphasis here is whether local jurisdiction results are lower than, higher than, or the same as the state. Table 3 reports the results of these two types of statistical tests for our example: trend test and difference test.

Trend Test. Sometimes the "eyeball" test may make you think that significant linear trends are present when in fact the data are not linear or the trend is not significant. For example, the linear trend test may be non-significant because the data has some other shape like □ or □. When the data has another shape, it would be inaccurate to describe a trend as linear.

We used JoinPoint software to test for trends. When JoinPoint finds that one or more segments of a time period have slopes that are significantly different from the slope of the previous period or finds significant shifts in the intercept, it breaks the trend into segments. This means that JoinPoint found a bend, or change in the angle of the trend line or intercept that is statistically significant from the previous segment at $P = 0.05$ or less. If bends were found, JoinPoint defines the time-based segment and describes the slope and intercept during each period. Each time the segment slope changes, its intercept also changes.

We allowed JoinPoint to search for segments if the series had 12 periods, as in our example. We report the multiple segment model when one or more segments have a slope significantly different from zero. Otherwise we report the simple linear model. If the numbers of local cases were too few to test 12 periods, we restricted JoinPoint to a simple linear trend test.

Table 3. Fertility Rate Trend Regression Results
Per 1,000 Female Population Age 15 to 17

Level	Date Range	Intercept		Slope			Sig?
		Est.	Std. Err	Est.	Std. Err	P-Value	
State	1994-2001	42.28	0.39	-2.70	0.10	0.000	Yes
	2001-2005	29.42	1.65	-0.86	0.17	0.001	Yes
Local	1994-2001	68.80	1.37	-4.62	0.34	0.000	Yes
	2001-2005	36.48	5.67	-0.01	0.59	0.992	No
State Avg	1994-1996	39.67	0.14				
Local Avg	vs State	64.15	1.23			0.000	Yes
State Avg	2003-2005	20.67	0.09				
Local Avg	vs State	36.65	0.80			0.000	Yes

State Trend. The first data row in the Level column contains the word "State". The "Date Range" column shows one or more time intervals. If a simple linear model was justified, one line of State results shows, and the Date Range column shows the 12-year range. In our example, JoinPoint found two segments, so two rows show with two ranges.

For each trend segment, the next column sets show the intercept and its standard error, the slope and its standard error, and the P-value associated with the slope. In the last column, we identify by "Yes" or "No" if the slope in the time segment is significantly different from zero at $P = 0.05$ or less.

JoinPoint rejected the hypothesis that the best fit for the state trend is linear and found that a 2-segment model offered the "best" description of the data. By best, we mean that this model explained more significantly variance than the simple linear model. From 1994 to 2001, the state

declined at a rate of -2.70, as shown by the P-value of 0.000, then continued to decline significantly but less steeply (slope -0.86, P-value 0.001).

Local Trend. The first column contains the word “Local”. In all other respects reporting of the local trend is like the state trend discussed above. For our example, JoinPoint found the local trend (-4.62, P = 0.000) was strongest between 1994 to 2001, then flattened thereafter (-0.01, P-value = 0.992). For more detailed information on the how the jurisdiction did, look at the slope estimate section of the table. The last column summarizes the "big picture": "Yes" means the trend is significant at P = 0.000 or less through 2001 and non-significant thereafter.

If the local jurisdiction has too few cases to calculate trends, we show the text "Too few cases", and the rest of the table is blank.

Difference of Slopes Test. If JoinPoint accepts a linear model for both the State and jurisdiction, we test to see if their slopes are significantly different from each other. That is, we test the null hypothesis that the local and state trends are equal, assuming the data are independent and had a normal distribution. In essence, we perform a T-test on the slopes.

Since JoinPoint found both state and models were nonlinear we do not show a difference of slopes test for it. When one area has a linear trend and another area has a curvilinear trend, or in this case when both are curvilinear, we cannot test if the slopes for these trends are different. But we can show the difference of slopes test for the fertility rate results for females age 40-44 in this same jurisdiction.

Table 4. Fertility Rate Trend Regression Results Per 1,000 Women Age 40-44

Level	Date Range	Intercept		Slope			Sig?
		Est.	Std. Err	Est.	Std. Err	P-Value	
State	1994-2005	10.23	0.10	0.22	0.02	0.000	Yes
Local	1994-2005	8.34	0.39	0.14	0.06	0.043	Yes
	Different?					0.151	No
State Avg	1994-1996	10.58	0.05				
Local Avg	vs State	9.17	0.38			0.000	Yes
State Avg	2003-2005	12.59	0.05				
Local Avg	vs State	10.00	0.35			0.000	Yes

Table 4 shows that both the state and local jurisdictions had significant linear trends. When both trends are linear, line 3 of the "Level column is blank and the “Date Range” column contains the word “Different?”. The P-value is from the test that the local slope equals the state slope over the 12-year period.

Again, a “Yes” or “No” indicates whether the P-value is statistically significant. In this case, both trends are statistically significant, but the local rate of change is not statistically different from the state rate of change. In any circumstance where the difference of slopes test is not statistically significant, report the state rate, since the local rate is not different from that, and the state rate has more power. Only when the two trends are significantly different should the local trend be reported in favor of the state trend.

Difference of Rates Tests. The trend tests above describe the rate at which outcome indicators are changing and their direction (improving, getting worse, or no change), and, if the trends are simple linear, whether the local jurisdiction is changing at the same or a different rate than the state. But these do not answer a question of central importance to most jurisdictions: Did they do better, the same as, or worse than the state as a whole? To approach this question, we did difference of rates tests, comparing the local jurisdiction to the state for the first three years and the last three years of the trend period. These results also are shown on the graph tab, with Tables 3 and 4 containing the example results.

State Average in First 3 Years. The first column shows “State Avg”, and the Date Range column identifies the first 3 years in the period. The three-year average state rate and its standard error are displayed in the Intercept Estimate and Standard Error columns. In the first three years of the example period for Table 3, the average state rate was 39.67 births per 1,000 women age 15 to 17. In the first three years of the example period for Table 4, the average state rate was 10.58 per 1,000 women age 40-44. In both cases, notice that the jurisdiction standard error is wider than the state, since the jurisdiction is smaller.

Local Average in First 3 Years and Comparison to State. This is located on the line after the State Average. The first column contains “Local Avg” and the Years column contains the words “vs State”. The three-year average local rate and its standard error are displayed in the Intercept Estimate and Standard Error columns. In the first three years of the trend period for Table 3, the local jurisdiction rate was 64.15 births per 1,000 women age 15 to 17. In the first three years of the trend period for Table 4, the local jurisdiction rate was 9.17 per 1,000 women age 40-44.

The "P-value" column shows the P-value for the test that the state and local 3-year rates are the same. “Yes” indicates that the P-value is less than 0.05 and the state and local rates are significantly different. “No” indicates that they are not significantly different. The example local jurisdiction had a statistically higher rate than the state during the 3-year period for teen births and lower than the state for older mothers.

State Average in Last 3 Years. Like first 3 Years described above, with the State as a whole having a rate of 20.67 births per 1,000 women age 15 to 17 and a rate of 12.59 births per 1,000 women age 40-44.

Local Average in Last 3 Years and Comparison to State. This is like the first three years described above, with the local jurisdiction having a rate of 36.65 births per 1,000 women age 15 to 17 and a rate of 10.00 per 1,000 women age 40-44. The "Yes" in the last column, and the $P = 0.000$ indicate that the local jurisdiction had statistically higher rates for teen births and a lower rate for older mothers than the state during the last three years in the 12-year period.

CONCLUSION

Reality is often complex, and complexity trumps simplicity when reporting statistical results. Thus when a statistically significant nonlinear trend exists, the interpretation must reflect this *even in the presence of a statistically significant linear trend*. In our example, the jurisdiction trend for teen births is nonlinear for both the state and local jurisdiction. In such a circumstance, the trends cannot be directly compared statistically and each must be summarized separately. Only when the best description for *both* trends are linear can their rates of change be compared.

The local rate of live births per 1,000 females age 15-17 declined linearly at the statistically significant rate of -4.62 per 1,000 live births during the period 1994-2001 with no significant change thereafter. Similarly, most of the state's decrease occurred between 1994-2001, at a rate of -2.70 per 1,000 live births, but it continued to drop at a lower but still significant rate thereafter. The local rate was significantly above the state rate at the start and end of the period.

On the other hand, the state and local jurisdiction each had a statistically significant trend for increased births to women age 40-44. The local trend was not significantly different from the state trend of 0.22 per 1,000 population.

In this jurisdiction, young women age 15-17 were much more likely to have a baby than the state average. On the other hand, older women in this jurisdiction were less likely to have a baby than the state average.

Over the period, both the state and jurisdiction rates fell below below the Healthy People 2010 Objective for teen births (43 per 1,000). No objectives are set for births to older women.

Readers with a non-statistical background will find it most helpful to focus on the last column of the trend results table. If it says "Yes," the trend is significant at $P = 0.05$. Those who would like a statistical refresher may wish to review the FHOP monograph, "Do We Have a Linear Trend?" It is available on the FHOP website at: <http://www.ucsf.edu>.

APPENDIX A: OTHER STATISTICAL ISSUES

The entire process of creating the Databooks is macro driven using SAS. The process starts by summarizing the indicator data and the appropriate denominator data to the geographic level of interest (state, county, super region (e.g., Bay Area) or sub-region (Berkeley, Long Beach, Pasadena, LA County Service Provider Areas). We calculate rates, feed the numerators and denominators into JoinPoint, bring the results back into SAS, and output the results directly into preformatted Excel template files.

We use JoinPoint to estimate linear trends for the jurisdiction and state and to test whether the resulting slope for each trend is significantly different from zero.^{7 8} The Statistical Research and Applications Branch (SRAB) of the National Cancer Institute developed JoinPoint as one among a set of new statistical methods and associated software tools for the analysis and reporting of cancer statistics. This group of powerful shareware statistical packages is appropriate for the analysis of any population-based data.⁹ In this set of software, JoinPoint was developed explicitly to estimate linear and curvilinear trends.

JoinPoint takes trend data and fits the simplest trend model that the data allow. The user supplies the minimum and maximum number of joinpoints. The program starts with the minimum number of joinpoints (e.g. 0 joinpoints, which is a straight line, or a standard trend test) and then tests whether more joinpoints are statistically significant and must be added to the model (up to that maximum number). This enables the user to test if an apparent change in trend from one period to another is statistically significant. The tests of significance use a Monte Carlo Permutation method.

Models may incorporate estimated variation for each point (e.g. when the responses are age adjusted rates) or use a Poisson model of variation. In addition, models may be linear on the log of the response (e.g. for calculating annual percentage rate change). The software allows viewing one graph for each joinpoint model, from the model with the minimum number of joinpoints to the model with maximum number of joinpoints.

Joinpoint uses a complex algorithm to decide whether to add a bend (“join point”) to a simple linear model. For each line segment, or for the whole time period, Joinpoint tests whether the slope is equal to zero (i.e. the line is flat). When calculating the standard error of the slope of a segment it ignores points at the bend, which reduces the effective sample size when calculating the standard errors of the slopes. Consequently, Joinpoint tests comparing the slopes to zero are quite conservative.

Joinpoint program options we used to calculate trends are: 1) input numerators and denominators, 2) test for bends at whole years, 3) use a minimum of two years between bends and between a bend and either end of the data, 4) test for a maximum of 2 bends, 5) fit a linear (not log-linear) model with uncorrelated errors.

7 The Joinpoint software program was obtained at: <http://srab.cancer.gov/joinpoint/>. Last accessed 25 Apr 2005.

8 Kim HJ, Fay MP, Feuer EJ, Midthune DN. Permutation tests for joinpoint regression with applications to cancer rates. *Stat Med* 2000;19:335-51 (correction: 2001;20:655).

9 See Methods & Software for Population-Based Cancer Statistics: <http://srab.cancer.gov/software/>. Last accessed 25 Apr 2005.

We decided to use the single line model unless one or more line segments had a slope significantly different from zero. If both the local and state data used a simple linear model, we tested the equality of the two slopes by using the estimates and standard errors reported by Joinpoint. The standard error of the difference was calculated as the square root of the sum of the squared standard errors.

In calculating state and local three-year rates, we used the total of the numerators and the average of the denominators over the 3 years. Then we divided the resulting rates and confidence limits by 3. In this calculation we used the same methodology as used to calculate 1-year rates and confidence intervals displayed on the rates table, namely the Wilson approximation method. The 95% confidence intervals were converted into an estimated standard error by dividing the width of the confidence intervals in half and then dividing by 1.96. We tested the equality of the two rates using the estimated rates and standard errors.

Other Data Available Through FHOP

- Hospital Discharge Files
- Population Files
- Boundary Files



FHOP Planning Tools

Overview of FHOP Planning Tools

Part of FHOP's cooperative agreement with the CA MCAH Branch is to support LHJs in their planning activities. One way that FHOP accomplishes this is to provide planning resources on its website. When you are on the FHOP website <http://www.ucsf.edu/fhop/> you will see some tabs on the left hand column of the home page. One of them is labeled **planning tools**. When you follow this link you will find a section of the website that contains these tools under the topic headings at the top of the page: assessment tools, the planning guide, interventions/ evaluation planning tools, research tools and other resources.

Under **assessment tools** you will find the **FHOP data templates**, a set of EXCEL spreadsheets that are specific to types of rate calculations (rate per 100, 1000 and 100,000) for numerators of <20, 20-99, and 100 or more. These tables automatically calculate rates and confidence intervals when you enter the numerators and denominators as directed. This tool can be used where you want to monitor indicators beyond those required by the MCAH Branch. FHOP has also produced a template for the calculations of relative risk, attributable risk and population attributable risk for more in depth analysis. Model templates are provided for low birth weight and preterm birth rates.

This section also has references a monograph on adolescent data sources and the **MCAH Community Health Assessment Survey** for counties wanting to collect data directly from these populations. Topics include dental health, asthma, childhood obesity, habits during pregnancy and family violence.

Under **intervention/evaluation tools** you will find the following instruments and instructions for their use: Tips for a Successful Problem Analysis and Identification of Points of Interventions, a blank Problem Analysis Diagram and an example of a Problem Analysis Diagram, a Blank Logic Model Diagram and an example of a Program Logic Model and Criteria for Determining Feasible Solutions. In addition under **Informational Resources** you will find links to research articles and sample problem analysis diagrams for many of the areas identified as priorities by LHJ's in 2004.

Under **The Planning Guide** you will find a book written by FHOP staff "**Developing an Effective Planning Process: A Guide for Local MCH Programs**" that takes you through all the steps of planning process, assessment, planning and evaluation and contains useful tools to assist in each step.

Assessment Tools: Data Templates

Tools for Monitoring Core Maternal Child Health Indicators

- Calculate Rates and confidence intervals
- Calculate Risk statistics

The MCH Indicator Templates are intended to generate rates and risk ratios with confidence intervals for selected MCH indicators. Each template file contains data for California State point estimates for each indicator that could be replaced with data from any comparison population. By entering county data, you will be able to compare your data to your state. There is also a template to calculate relative risk, attributable risk, attributable risk percent and population attributable risk.

TEMPLATE for 100 or more CASES

TITLE V INDICATOR TEMPLATES

INDICATOR:

DEFINITION:

NUMERATOR:

DENOMINATOR:

HEALTHY PEOPLE 2010 OBJECTIVE:

RISK FACTORS:

Year	California		County				County/State Comparison		
	Events	Percent	Events	Percent	Lower 95% C.L.	Upper 95% C.L.	Ratio	Lower 95% C.L.	Upper 95% C.L.
1994		#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
1995		#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
1996		#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
1997		#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
1998		#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
1999		#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2000		#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2001		#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2002		#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2003		#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2004		#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2005		#DIV/0!		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Source:

Recommended Tables:

INSTRUCTIONS FOR COMPLETING MCH INDICATOR TEMPLATES

Family Health Outcomes Project University of California, San Francisco

OVERVIEW

These instructions are intended to help you fill out your MCH Indicator Templates. Each template file contains partially completed tables for selected MCH indicators. These include four groups of templates: those that address perinatal indicators; those focusing on non-fatal and fatal injuries; those focusing on domestic violence; and a template for attributable risk calculations. The files contain spreadsheets that can be read by MS Excel software. There are a total of thirteen files zipped together, which contains the following 37 templates:

File Name	Contains Templates for the Following Indicators
01-Crude Birth Rate.xls	Crude birth rate
02-Births by Race-Ethnicity.xls	Percentage distribution of births by race/ethnicity
03-Fertility Rates.xls	Fertility rate among women ages 15-44 Fertility among girls ages 10-14 Fertility among girls 15-17 Fertility among women ages 18-19
04-Perinatal Measures.xls	First trimester initiation of prenatal care Percent of births with adequate prenatal care utilization (APNCU) Percent low birth weight Percent very low birth weight Proportion of mothers who intend to exclusively breastfeed their infants at hospital discharge
05-Infant Mortality.xls	Infant mortality rate Neonatal mortality rate Post-neonatal mortality rate Fetal mortality rate
06-Injury Hospitalizations.xls	Hospitalizations among children and youth due to unintentional injuries Hospitalizations among children and youth due to assaultive intentional injuries Hospitalizations among children and youth due to self-inflicted injuries Hospitalizations among children and youth due to all injuries
07-Injury Death-1.xls	Deaths due to motor vehicle transport (MVT) accidents among children ages 1-14 Deaths due to suicide among youth aged 15 through 19 years Deaths due to homicide among youth aged 15 through 19 years Deaths due to motor vehicle transport (MVT) accidents among youth ages 15-19 Deaths due to drowning in swimming pools, children aged 1 through 4 years
08-Injury Death-2.xls	Deaths due to unintentional injuries among children and youth ages 0-24 Deaths due to homicide among children and youth ages 0-24 Deaths due to suicide among children and youth ages 0-24 Deaths due to injuries among children and youth ages 0-24
09-Violence Against Women.xls	Domestic violence-related calls for assistance Domestic violence-related calls for assistance: Cases with weapons Domestic violence: Arrests for spousal abuse Non-fatal hospitalizations of women due to assault Deaths due to injuries from assaults among adolescent and adult females

10-Blank Percent.xls	This is a blank template that the user can use for analysis of percentage data.
11-Blank Rate per 1,000.xls	This is a blank template that the user can use for analysis of rate data per 1,000 in the population under study.
12-Blank Rate per 100,000.xls	This is a blank template that the user can use for analysis of rate data per 100,000 in the population under study.
13-Attributable Risk.xls	This is a blank template that the user can use to calculate attributable risk and population attributable risk.

Where available, data for California, years 1990 through 2001 have been filled in. Data from 2001 for some measures are not available because they had yet to be released at the time of the template revisions. Spaces have been left blank for you to enter local county data next to the corresponding year of the state data. Most data are published on the FHOP website or within annual state reports.

Detailed instructions for filling in the templates are found below. Most files contain several worksheets for the data templates and for the charts.

The Data worksheets (titled “TEMPLATES” or the name of the indicator) have been designed so that rates/percentages and confidence intervals are calculated automatically. The confidence intervals can be used to determine whether the local rate for a given year is significantly different from the corresponding figure for California or from the relevant Healthy People 2010 Objective.

The Chart worksheets of the spreadsheet files contain tables that fill in automatically and generate a graph for each indicator as the county data is entered. The graph displays California and county data with the appropriate upper and lower confidence limits for the county, as well as the Healthy People 2010 Objective (where applicable). Users can re-format the graphs (change the titles, ranges, etc.) by double-clicking on the graph so that it will “open”. It is then possible to change the preset formatting. Before making any changes, please unprotect each worksheet ([see the instructions at the end of this document](#)). We suggest that you print the charts from this “open” view, as opposed to printing the entire sheet that contains the charts and the tables to generate them. You can also click off the chart print out just the chart and associated table by printing only the desired page number since each chart and table is formatted for one page.

TEMPLATE DESCRIPTION

Each template contains the following items:

Indicator

The commonly used term for the indicator, e.g., “Percent Low Birth Weight”.

Definition

Definitions are those used for public health surveillance purposes as reported by Healthy People 2010 Objectives, the Children’s Safety Network, and Family Health Outcomes Project (FHOP) indicator tables.

Numerator

For both rates and percentages, the numerator represents the “number” of specifically defined cases or events to be counted. For most indicators, this is the number of events by age group for county residents in a calendar year (or over three consecutive calendar years, as in the case of aggregating three years of data).

Denominator

For both rates and percentages, the denominator is the base population to which the numerator applies (the population-at-risk in the calculation). This is usually the total population of interest by age group for county residents at mid-year (or over three consecutive years, as above).

Healthy People 2010 Objective

The national objective from the *Healthy People 2010 National Health Promotion and Disease Prevention Objectives* is used when available and its reference number specified.

Risk Factors

A comprehensive list of suggested risk factors (as referenced in Healthy People 2010) is included for most indicators. Risk factor listings are designed to assist local health jurisdictions in problem analysis and development of intervention strategies.

Indicator Table

The indicator table displays information about the number of cases or events, along with percentages or rates, for each indicator for the years 1990 through 2001 (note that some indicators do not have data released for all of the years between 1990 and 2001) for California and for the local health jurisdiction. California data have been filled in by FHOP wherever possible. Each column is described later in this guide.

Source

Lists the data source(s). We suggest using state reports that provide data on both the state and county level in order to maintain comparability and consistency. Most of the data used in the templates are available from these publications or from FHOP.

Additional Recommended Tables

FHOP recommends that the user do further analyses in order to better understand the epidemiology of each indicator. Some of the suggested frequency tables, two-way tables and maps can be produced using EpiBC 2000 and EpiHOSP. These are public domain software packages developed by FHOP that are designed to import birth certificate and hospital discharge data, respectively. Both software packages are available from FHOP and can be downloaded from the FHOP website. EpiBC 2000 is Windows-based and must be used with EpiInfo 2000. EpiHOSP is DOS-based and also must be used with EpiInfo 6 for DOS.

The following table is a quick reference describing the contents of template columns A through J for the first of the templates (01-Crude Birth Rate.xls) describing the birth rate per 1,000 in the population:

A	B	C	D	E	F	G	H	I	J
Crude Birth Rate									
	California		County			County/State Comparison			
Year	Births	Rate	Births	Rate	Lower 95% C.L.	Upper 95% C.L.	Rate Ratio	Lower 95% C.L.	Upper 95% C.L.

Column A: The rows list each calendar year (or years for spreadsheets which aggregate three years of data) under this heading.

Column B: The total number of births in California. These numbers are provided.

Column C: Rate for California. This is the number of births per the population unit detailed in the indicator description (e.g., 15.0 births per 1,000 population in 2001). This is automatically calculated by the Excel spreadsheet using state numerator data from Column B, and the state denominator data that are located off to the right of the main table (column N). Note that, in earlier versions of the data templates, rates and percents for California included calculations for confidence intervals. The current revised version views rates for the state as fixed benchmarks and not subject to variability. Thus, no confidence intervals are given for statewide data. Percents are calculated the same way as rates except that the population variable is not a multiplier.

Column D: The user enters the total number of births for county residents for each of the years. At this point, the user should enter population data in the far right column (outside the table – Column N). Note that in all templates where years are aggregated, the user only enters data for individual years in Columns N and P. In these cases, Column D is an un-editable, calculated field.

Column E: The template calculates the rate for the county. Note that, for most indicators, until values for both the numerator and the denominator have been entered into the appropriate columns, this cell will display the error message “#DIV/0!”.

Columns F-G: County 95% Confidence Limits, Lower and Upper. These fields display the lower and upper limits of the 95% confidence interval around the county rate, and will be automatically calculated based on the relevant numerator and denominator data for the county.

Column H: Rate Ratio. This is the county rate divided by the rate for California. For indicators that use percents, this will be a ratio of proportions.

Columns I-J: 95% confidence limits for the rate ratio (or ratio of proportions). If the two limits span the number “1”, that is, one limit is less than 1.00 and the other is greater than 1.00, then the county rate is not significantly different from the rate for the state.

MULTIPLE SHEETS

At the bottom of the spreadsheet, toward the left, are “tabs”. The first of these is labeled “100+ Births”. This worksheet is to be used in situations where there are 100 or more births among county residents in each of the years.

The next sheet is labeled “Chart 100+”. This worksheet contains a graph that is automatically completed when the data are entered on the first worksheet.

The third worksheet is labeled “20-99 Births”. This is a new feature for the templates and it is added to help those counties that are small and have relatively few births.

The fourth worksheet “Chart 20-99 Births” provides a graph based on data from the third worksheet.

The fifth worksheet is labeled “<20 Births”. This is also a new feature for the templates and it is added to help those counties that are extremely small and have relatively few births and must aggregate three years of data to be able to analyze. This included combining three consecutive years of birth and population data. Note that if your county has less than 10 births combined over three years then this tool will not give you the results you need. A more useful approach would be to conduct a case study or case report. You must also possess all data for a given three year aggregate for it to be statistically reliable.

The sixth worksheet “Chart <20” provides a graph based on data from the fifth worksheet.

VARIATIONS FOR DATA USING PERCENTAGES

The methods for data using percentages differ slightly from methods for data using rates. Using the example of the file called “04-Perinatal Measures.xls,” we can see that the table on the first worksheet is not very different from that used for the birth rate. There are only worksheets for “20+ cases” and “<20 cases.” Calculations for confidence levels are the same for both 100+ cases and 20-99 cases so they are combined onto one sheet.

The worksheet labeled “Cases <20” automatically calculates percentages using multiple years of data. The user need only enter numerators and denominators for individual years at the far right in Columns “N” and “P” and the worksheet does the rest by summing both numerators and denominators for 3-year periods.

SPECIAL CASE FOR DEATHS FROM INJURIES

07-Injury Death-1.xls AND 08-Injury Death-2.xls)

These worksheets follow the format used for rates, with the following exception: Because childhood deaths from injuries are infrequent, the worksheet is designed to calculate multi-year rates. Only “100+ deaths” and “<100 deaths” are used because of this. The user need only enter data for individual years in the columns at the far right, and the worksheet does the rest.

In the second of these templates (08-Injury Death-2.xls) you may decide to analyze injury deaths by other age groups (e.g., ages 0-4 years, 5-9 years, 10-14 years, etc.), gender and specific injury mechanisms (E-Codes) to begin to uncover injury patterns and their relationship to the suggested risk factors. As an initial step, FHOP provides a blank template for analysis by user-entered age group and by mechanism and age group as required under the federal MCH Bureau Title V guidelines:

Deaths due to unintentional injuries among children and youth ages (user specified)

Deaths due to homicide among children and youth ages (user specified)

Deaths due to suicide among children and youth ages (user specified)

This supplemental template will generate multi-year, age-specific rates per 100,000 population and 95% confidence intervals for in-depth analysis of injury rates among age groups defined by the user. Please use the file “12-Blank Rate per 100,000 population.xls.”

A NOTE ABOUT MULTI-YEAR RATES

Data analysts sometime present simple averages of rates over a 3-year period. For example, infant mortality rates of 5/1000, 6/1000 and 7/1000 can be averaged to report a 3-year average rate of 6/1000. While this approach is useful for simple “smoothing” of trend data, we caution the user against this

approach for statistical purposes because the method does not correctly aggregate both numerators and denominators, that is, the method does not allow for calculation of a confidence interval.

The statistically correct approach is to sum the infant deaths for three years, and to sum the births over the same three years. This approach effectively increases sample size and produces a narrower confidence interval than would result from calculations using a single year of data. Note that the denominator for infant mortality is “number of births”. This number is meant to reflect “person-years at risk for infant death”. Thus, a correctly calculated 3-year rate must consider the number of “person-years at risk”, and this is reasonably estimated by considering the number of births over the 3-year period.

That said, we note that such aggregations are useful only for comparisons between the county and the benchmark state figure. That is, aggregated data should not be used for analysis of trends over time because such an approach would use the same data points more than once in the analysis. To evaluate changes in rates over time, it is more appropriate to view each year independently.

THE DATA SOURCES

FHOP Excel Spreadsheets

Much of the data needed to complete the templates is available from Excel spreadsheets posted on the FHOP website under California MCH Data: <http://www.ucsf.edu/fhop/mch-data.htm>, under the item labeled “County Perinatal Data”. You will need to contact FHOP for a password. Those who have used our earlier versions of the templates will be pleased to know that FHOP has compiled much of the county-level statistical data into Excel spreadsheets. We hope that this reduces the need for extensive labor in pouring through statistical publications.

CHS Website

Some of the information, especially the birth-related figures for 2001, is available from the DHS Center for Health Statistics website: <http://www.dhs.cahwnet.gov/hisp/chs/OHIR/vssdata/tables.htm> Start by selecting the choice of getting the data in Excel format.

EPIC Injury Data

Injury data, including figures for non-fatal hospitalizations and for injury-related deaths, are available from an online query system at the DHS EPIC website: <http://www.applications.dhs.ca.gov/epicdata/default.htm>

DOF Population Data

For some population data, data can be obtained by going to the Expert Health Data Programming, Inc. (EHDP) website: <http://www.ehdp.com/vn/ro/acv/cau1/dgw/pt1/index.htm> You can select categories such as Race, Sex, Age, Years interested in. Down below under “3 - Next, select counties and county groupings:” you can select the county you would like to query. To select all counties in California, you need not select any item. Note: the data source for EHDP is the Department of Finance for California.

If you have already entered data for previous years into an earlier version of the data templates, you may simply copy cells that contain raw data from that version into the updated templates. **Please note that numbers have changed for injury data when data are retrieved through the EPIC website, rather than MISS/HISS. For this reason, you must query EPIC for previous years as well as the current year. Do not simply copy and paste data from earlier versions of your templates.**

HOW TO GET THE DATA

01 Crude Birth Rate

Births, 1990-2000 - FHOP Excel Spreadsheets
Births, 2001 - CHS Website (Select Excel, 2001, Natality, County Data)
Total Population, 1990-2000 - FHOP Excel Spreadsheets
Total Population, 2001 - DOF Population Data

02 Births by Race-Ethnicity

Births, 2001 - CHS Website (Select Excel, 2001, Natality, Statewide Data)

03 Fertility Rates

Births for Age Groups, 1990-2000 - FHOP Excel Spreadsheets
Births for Age Groups, 2001 - CHS Website (Select Excel, 2001, Natality, County Data)
Women in Respective Age Groups, 1990-2000 - FHOP Excel Spreadsheets
Women in Respective Age Groups, 2001 - DOF Population Data

04 Perinatal Measures

Prenatal Care, Low Birth Weight, Very Low Birth Weight, 1990-2000 - FHOP Excel Spreadsheets
Prenatal Care, Low Birth Weight, Very Low Birth Weight, 2001 - CHS Website (Select Excel, 2001, Natality, County Data)
Births, 1990-2000 - FHOP Excel Spreadsheets
Births, 2001 - CHS Website (Select Excel, 2001, Natality, County Data)
ANPCU Numerators and Denominators – County Health Status Profiles (DHS publication), various years.
Mothers Breastfeeding Numerators and Denominators - FHOP Excel Spreadsheets

05 Infant Mortality

Infant Deaths, Neonatal Deaths - FHOP Excel Spreadsheets
Post-Neonatal Deaths – calculated as Infant Deaths minus Neonatal Deaths
Fetal Deaths - CHS Website (Select Excel, 2001, Fetal Mortality, County Data)
Births, 1990-2000 - FHOP Excel Spreadsheets
Births, 2001 - CHS Website (Select Excel, 2001, Natality, County Data)

06 Injury Hospitalizations (non-fatal)

Unintentional, Assault, and Self-Inflicted Injuries, Ages 0-24 – EPIC Injury Data (Scroll down, select custom table for non-fatal data, year 1992-2000, type of injury, county, age 0 through 24, first level of detail = year)
Population Ages 0-24 - DOF Population Data

07 Injury Death 1

Motor Vehicle Transport (MVT) Deaths, Ages 1-14 - EPIC Injury Data (Scroll down, select custom table for fatal data, year 1993-2001, click cause MVT occupant, hold shift key and click cause MVT unspecified, county, age 1 through 14, first level of detail = year)
Suicide, Ages 15-19 - EPIC Injury Data (Scroll down, select custom table for fatal data, year 1993-2001, all self-inflicted, county, age 1 through 14, first level of detail = year)
Homicide, Ages 15-19 - EPIC Injury Data (Scroll down, select custom table for fatal data, year 1993-2001, all assault injuries, county, age 1 through 14, first level of detail = year)
Motor Vehicle Transport (MVT) Deaths, Ages 15-19 - EPIC Injury Data (Scroll down, select custom table for fatal data, year 1993-2001, click cause MVT occupant, hold shift key and click cause MVT unspecified, county, age 15 through 19, first level of detail = year)

Drowning in Swimming Pools, Ages 1-4 – EPIC Injury Data (Scroll down, select custom table for fatal data, year 1993-2001, all injuries, county, age 1 through 4, type “9108, W67, W68” under advanced cause, first level of detail = year)
Population Denominators - DOF Population Data

08 Injury Death 2

Unintentional, Ages 0-24 - EPIC Injury Data (Scroll down, select custom table for fatal data, year 1993-2001, all unintentional, county, age 0 through 24, first level of detail = year)
Homicide, Ages 0-24 - EPIC Injury Data (Scroll down, select custom table for fatal data, year 1993-2001, all assault, county, age 0 through 24, first level of detail = year)
Suicide, Ages 0-24 - EPIC Injury Data (Scroll down, select custom table for fatal data, year 1993-2001, all self-inflicted, county, age 0 through 24, first level of detail = year)
Population Denominators - DOF Population Data

09 Violence Against Women

Sources for locating data on domestic violence-related calls for assistance, and numbers of arrests are shown in the respective tables.

Non-Fatal Hospitalizations of Women Due to Assault, Ages 16-44 – EPIC Injury Data (Special topics – violent injuries to women, Non-fatal violent injuries to females by age and year – pick from “Assaultive injuries to females”, not from “Abuse of females by spouse or partner” – pick county, sum columns for 16-20 and 21-44)

Deaths Rates Due to Assaultive Injuries, Females ages 16-44 - EPIC Injury Data (Special topics – violent injuries to women, Fatal violent injuries to females by age and year, pick county, sum columns for 16-20 and 21-44)

Females Ages 16-44 - DOF Population Data or can be constructed from tables at <http://www.applications.dhs.ca.gov/epicdata/STpopulation.html>

ADVISORY ON POPULATION DENOMINATORS

At this time, the recommended source for population data is the California Department of Finance (DOF) estimates and projections completed in December 1998. The reader should be aware that, in some cases, substantial differences have been observed between those figures and the year 2000 census counts, particularly for sub-populations in smaller counties. To the extent that the DOF figures are in error and if that error has increased over time since the 1990 census, then observed trends in your county, as shown in these templates, may reflect measurement problems and not an actual trend in your community. Similarly, progressive measurement error over time can act to hide real changes in your community.

We suggest that you compare your DOF population figures for the year 2000 with those from the census. The census figures can be found at: <http://www.dof.ca.gov/HTML/DEMOGRAP/SF1profilesCP.htm> Items P12/P13 on page 1, and P14 on page 4 should have all the numbers you need.

At this time, the DOF is developing improved population estimates and projections and these will incorporate data from the 2000 census. When those figures are available, it will be necessary to change your population denominators in the data templates.

WORKING WITH SMALL NUMBERS: THE RULE OF CONFIDENTIALITY

Often times, in smaller counties, there are possibilities that there are a small number of numerator and denominator data for the indicators. For example small counties may only have 2 infant deaths in 2001 out of 15 live births. In these cases, caution should be taken in publishing data that could positively

identify individuals with certain characteristics.

In the following indicator templates we have not included any rule or calculations with respect to handling a small number of events and/or total population counts. However, we do have suggestions for analyzing statistical data with small numbers. Whenever you are reporting specific demographic characteristics such as race and ethnicity it is especially important to follow these rules.

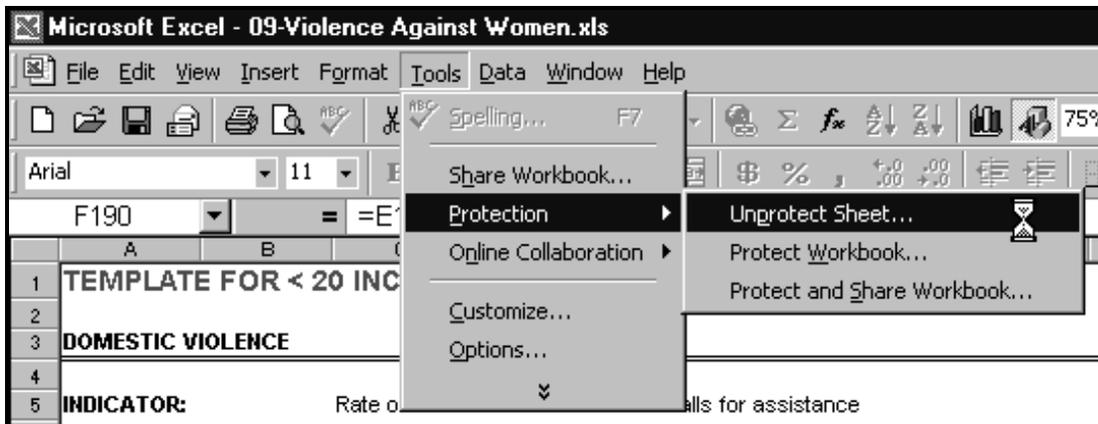
The Missouri Department of Health and Senior Services has a small numbers guideline that is currently being referenced by the CDC and the CSTE (Council of State and Territorial Epidemiologists). The joint work group is working on a national guideline for data analysis and reporting. The formal policy is currently in the draft phase.

Adopted from the Missouri Department of Health and Senior Services guidelines¹

1. Numerator and Event Denominator Rule
 - A table is not reported if a table cell subtracted from the number of total events of the same data file for the same characteristics yields a small number (less than 10).
 - Example:
 - A cell with 2 American-Indian females, 35-44 years of age who died from AIDS would be published if there were 15 American-Indian females, 35-44 years of age total deaths. ($15-2>10$)
2. It is unlikely that one can identify the diagnosis of a person if there are at least 10 other persons that had the same demographic characteristics and had the same event (deaths, birth, hospitalization, etc.)

A NOTE ON FILE PROTECTION

The template files are “protected” so that the user cannot inadvertently change the contents of cells. This is meant to prevent the user from accidentally erasing a formula or standard text. In all cases, the only cells that can be altered are cells in which the user can enter county numerator and denominator data. But the worksheets can be “unprotected” as followed:



1. Land, Garland, Missouri Department of Health and Senior Services, *Confidentiality Data Release Rules*, www.amstat.org/comm/cmtepc/images/Land_confidentiality%20rules.ppt

- Click on the worksheet you wish to “unprotect”.

- Click on **TOOLS; PROTECTION; UNPROTECT SHEET**
- No password is needed.

Make your changes, and then re-protect the sheet by going to the menu bar again:

- Click on **TOOLS; PROTECTION; PROTECT SHEET**
- **Click “OK”** (do not enter a password unless you want one)
- **Save** the file

A NOTE ON VIEWING AND PRINTING TEMPLATES

You will notice that all the templates and charts within each worksheet have blue separators. This was done with the intention of allowing the user to print each template and/or chart with its associated table on one sheet of paper. The templates and charts are already saved and formatted to fit in portrait orientation.

Assessment Tools:

MCAH Community Assessment Survey

This survey was developed in conjunction with the California Maternal, Child and Adolescent Health Action (MCAH ACTION) rural caucus and have been developed to help counties obtain information about the health of women, adolescents and children.

The Core Survey includes five modules:

- dental health,
- asthma,
- childhood obesity,
- habits during pregnancy
- family violence

The Adolescent Health Survey can be utilized as a stand-alone survey. In addition, the surveys and their respective modules are available in English and Spanish.

MCAH Community Assessment Survey Example

2

We are interested in knowing about children in our community who have asthma and how to better help parents and children manage children's asthma. Please help us by answering the following questions about your children, or children who you care for living in your home.

Thank you for completing this survey.

1. Has a doctor or other health professional EVER told you that any of your children 17 years old or younger had asthma?
₁ Yes ₂ No ₃ Don't know ₄ Doesn't apply

If answer is "No" or "Doesn't apply", skip this module.

2. If yes, how many of your children? **Enter Number:** _____
3. How many of these children still have asthma? **Enter 0 if none and then skip the rest of this module.**
₁ Number of children: _____ ₂ Don't know

Please answer the following questions for **each** of your children who have asthma **now**:

For Question #4 enter the age of each child. For all other questions, check the answer box that applies for each child. If you have more than 4 children who have asthma, please use the additional sheet provided at the end of the survey.

	Child 1	Child 2	Child 3	Child 4
4. What is the age of each child?	_____ years old	_____ years old	_____ years old	_____ years old
5. What is the sex of each child?	<input type="checkbox"/> ₁ Male <input type="checkbox"/> ₂ Female			
6. What is the race of each child?	<input type="checkbox"/> ₁ African American <input type="checkbox"/> ₂ Asian <input type="checkbox"/> ₃ Hispanic/Latino <input type="checkbox"/> ₄ Native American <input type="checkbox"/> ₅ White/Caucasian <input type="checkbox"/> ₆ Other: _____	<input type="checkbox"/> ₁ African American <input type="checkbox"/> ₂ Asian <input type="checkbox"/> ₃ Hispanic/Latino <input type="checkbox"/> ₄ Native American <input type="checkbox"/> ₅ White/Caucasian <input type="checkbox"/> ₆ Other: _____	<input type="checkbox"/> ₁ African American <input type="checkbox"/> ₂ Asian <input type="checkbox"/> ₃ Hispanic/Latino <input type="checkbox"/> ₄ Native American <input type="checkbox"/> ₅ White/Caucasian <input type="checkbox"/> ₆ Other: _____	<input type="checkbox"/> ₁ African American <input type="checkbox"/> ₂ Asian <input type="checkbox"/> ₃ Hispanic/Latino <input type="checkbox"/> ₄ Native American <input type="checkbox"/> ₅ White/Caucasian <input type="checkbox"/> ₆ Other: _____
7. During the past 12 months has your child missed school or day care because of her/his asthma?	<input type="checkbox"/> ₁ No <input type="checkbox"/> ₂ Yes, 1 or 2 times <input type="checkbox"/> ₃ Yes, 3 to 5 times <input type="checkbox"/> ₄ Yes, more than 5 times <input type="checkbox"/> ₅ Don't know	<input type="checkbox"/> ₁ No <input type="checkbox"/> ₂ Yes, 1 or 2 times <input type="checkbox"/> ₃ Yes, 3 to 5 times <input type="checkbox"/> ₄ Yes, more than 5 times <input type="checkbox"/> ₅ Don't know	<input type="checkbox"/> ₁ No <input type="checkbox"/> ₂ Yes, 1 or 2 times <input type="checkbox"/> ₃ Yes, 3 to 5 times <input type="checkbox"/> ₄ Yes, more than 5 times <input type="checkbox"/> ₅ Don't know	<input type="checkbox"/> ₁ No <input type="checkbox"/> ₂ Yes, 1 or 2 times <input type="checkbox"/> ₃ Yes, 3 to 5 times <input type="checkbox"/> ₄ Yes, more than 5 times <input type="checkbox"/> ₅ Don't know
8. During the past 12 months, how many emergency or urgent care visits did you make because your child had an asthma attack?	<input type="checkbox"/> ₁ None <input type="checkbox"/> ₂ 1 time <input type="checkbox"/> ₃ 2-4times <input type="checkbox"/> ₄ 5 or 6 times <input type="checkbox"/> ₅ 6-12 times <input type="checkbox"/> ₆ More than 12 times	<input type="checkbox"/> ₁ None <input type="checkbox"/> ₂ 1 time <input type="checkbox"/> ₃ 2-4times <input type="checkbox"/> ₄ 5 or 6 times <input type="checkbox"/> ₅ 6-12 times <input type="checkbox"/> ₆ More than 12 times	<input type="checkbox"/> ₁ None <input type="checkbox"/> ₂ 1 time <input type="checkbox"/> ₃ 2-4times <input type="checkbox"/> ₄ 5 or 6 times <input type="checkbox"/> ₅ 6-12 times <input type="checkbox"/> ₆ More than 12 times	<input type="checkbox"/> ₁ None <input type="checkbox"/> ₂ 1 time <input type="checkbox"/> ₃ 2-4times <input type="checkbox"/> ₄ 5 or 6 times <input type="checkbox"/> ₅ 6-12 times <input type="checkbox"/> ₆ More than 12 times

	Child 1	Child 2	Child 3	Child 4
9. Did your child's doctor or other health care provider ever explain how to recognize early signs of an asthma episode and tell you what you should do?	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No <input type="checkbox"/> ₃ Don't know/ not sure	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No <input type="checkbox"/> ₃ Don't know/ not sure	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No <input type="checkbox"/> ₃ Don't know/ not sure	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No <input type="checkbox"/> ₃ Don't know/ not sure
10. Did your child's doctor or other health care provider ever give you information about how to avoid the things that make your child's asthma worse?	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No <input type="checkbox"/> ₃ Don't know/ not sure	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No <input type="checkbox"/> ₃ Don't know/ not sure	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No <input type="checkbox"/> ₃ Don't know/ not sure	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No <input type="checkbox"/> ₃ Don't know/ not sure
11. An asthma management plan is a printed form that tells when to change the amount or type of medicine, when to call the doctor for advice and when to go to the emergency room. Has a doctor or other health professional ever given you/your child an asthma management plan?	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No <input type="checkbox"/> ₃ Don't know/ not sure	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No <input type="checkbox"/> ₃ Don't know/ not sure	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No <input type="checkbox"/> ₃ Don't know/ not sure	<input type="checkbox"/> ₁ Yes <input type="checkbox"/> ₂ No <input type="checkbox"/> ₃ Don't know/ not sure

12. Overall, would you say your child's/children's asthma puts a burden on your family?
₁ A great deal ₂ A medium amount ₃ A little ₄ Not at all ₅ Don't know

Thank you for completing this survey.

Intervention Planning Tools

Problem Analysis

- To assure a rational allocation of resources
- To assist in targeting limited resources to those factors that play the biggest role in causing the problem
- To mitigate the risk of allocating of resources based on political pressure

Logic Model

- A key method of understanding the program
- Useful for communicating how a program will / does work
- Useful to identify evaluation questions

BLANK PROBLEM ANALYSIS DIAGRAM

Societal/ Policy Level/ Tertiary Precursors	<input type="text"/>	<input type="text"/>	<input type="text"/>
Family/ Institutional Level/ Secondary Precursors	<input type="text"/>	<input type="text"/>	<input type="text"/>
Individual Level/ Primary Precursors	<input type="text"/>	<input type="text"/>	<input type="text"/>

Targeted Indicator :

Consequences:

PROBLEM STATEMENT: _____

INPUTS	
RESOURCES	

OUTPUTS	
ACTIVITIES	PARTICIPATION

OUTCOMES		
SHORT	INTERMEDIATE	LONG-TERM

ASSUMPTIONS/ THEORIES

ENVIRONMENTAL FACTORS



FIGURE 2. LOGIC MODEL: COMMUNITY PLAN TO PROMOTE BREASTFEEDING

Problem Statement: Mothers choose not to exclusively breastfeed or prematurely discontinue infant breastfeeding		OUTCOMES - IMPACT			
INPUTS (Resources)	OUTPUTS		Short	Intermediate	Long-Term
	Activities	Participation (those affected)			
<ul style="list-style-type: none"> Breastfeeding Coalition Breastfeeding Promotion Grant \$(60,000) Breastfeeding promotion is a priority Maternal and Child Health Program function Staff with expertise in breastfeeding information Access to staff with assessment skills Liaison with County Hospital Relationship with local provider organization / professional groups 	<ul style="list-style-type: none"> Assess provider breastfeeding promotion/education policies & practices Develop culture appropriate breastfeeding promotion materials Provide lactation resource information to providers Educate providers Develop system of Provider referral to breastfeeding classes In-hospital education of new mother Collaborate w/ local Hospital to develop "Baby-Friendly" policy Collaborate on nursing school breastfeeding curriculum Promote "Baby-Friendly" workplace policy for City of _____ Educate businesses about "baby-friendly" practices Develop directory of businesses friendly to breastfeeding Promote "Baby-Friendly" rest area at County Fair 	<ul style="list-style-type: none"> OB-GYN Physicians Family Practice Physicians Provider Staff Pediatricians Businesses/business organizations City and County representatives Pregnant Women Lactating Women Local Hospital Staff _____ College Nursing Program Faculty and Staff Local Medical Association 	<ul style="list-style-type: none"> Completed assessment of provider policies and practices 95% of providers educated about breastfeeding 90% of providers have educational material displayed in their offices 25% of businesses display "Baby-Friendly" stickers 95% of new mothers receive in-hospital nurse education Directory of "Baby Friendly" businesses on internet Establishment of "Baby-Friendly" rest area at County Fair Nursing School curriculum incorporates breastfeeding provider referrals to lactation resources 	<ul style="list-style-type: none"> # / % (from baseline) of women completing a breastfeeding class who choose to breastfeed "Baby-Friendly" policy adopted by local Hospital Local College Nursing Program incorporates new curriculum 50% of businesses will display baby friendly stickers "Baby-Friendly" policy adopted by City of _____ 50 % of women choose to breastfeed exclusively at hospital discharge 90% of providers implement a breastfeeding education policy 	<ul style="list-style-type: none"> 70 % of mothers in the county choose to breastfeed at hospital discharge 50% of mothers continue to breastfeed up to 6 months of age (HP2010) Better infant health outcome as measured by: anemia rates

Model Adapted from Taylor-Powell, E. (1996). The Logic Model: A Program Performance Framework, University of Wisconsin-Extension.

10/13/04

Action Plan Report - Required Tool

OPTIONAL BOXES FOR LOGIC MODEL

ASSUMPTIONS

- Breast milk is the optimal infant food. It has nutritional properties superior to formula and transmits protective immunoglobulins to the newborn.
- Lactation resources are available in the community
- Although previous attempts to influence African American women's intent to breastfeed have been unsuccessful in this community, successful programs have been reported in the literature

ENVIRONMENTAL FACTORS

Negative:

- State budget crisis could result in funding cuts for many members of the Collaborative.
- There is an increase in formula marketing in the media

Positive:

- There is a grant application pending for a program that would increase resources for several members of the Collaborative for breastfeeding promotion

Developing an Effective Planning Process: A Guide for Local MCAH Programs

- New edition published in 2003
- Reviews the traditional health planning cycle with a focus on MCAH activities
- Provides tools to facilitate planning during each phase of the process
- Provides tools to simplify data analysis

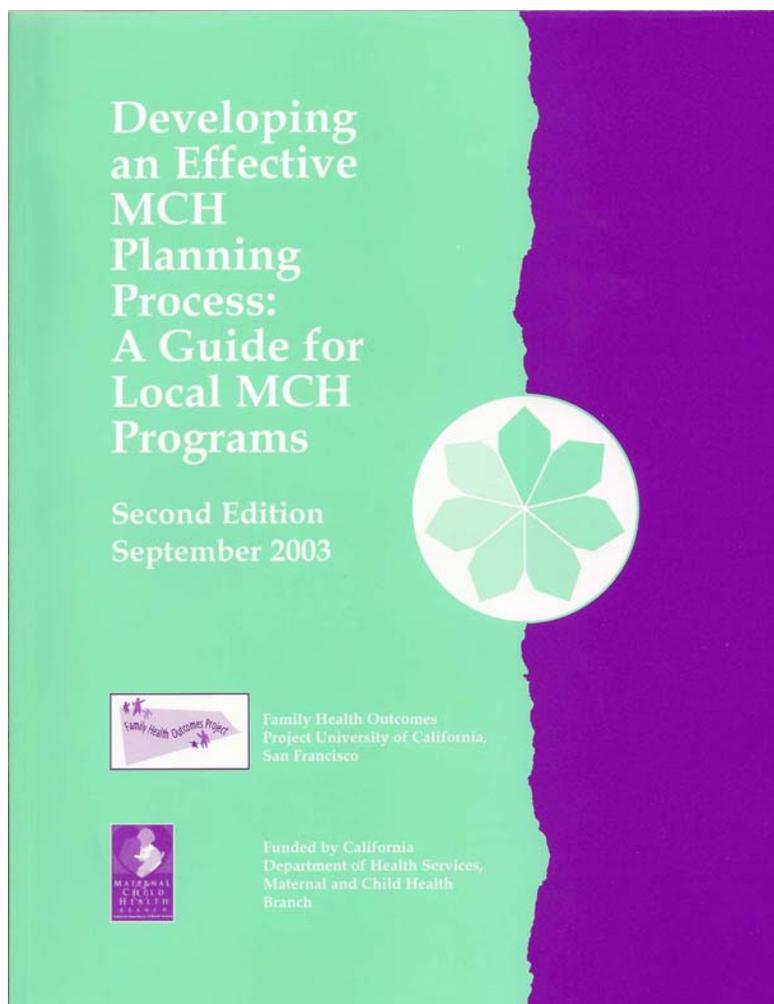


TABLE OF CONTENTS

INTRODUCTION	5
--------------	---

CHAPTERS

I Building a Constituency for Community Assessment and Data Based Planning: The Role of Coalitions and Collaboratives in the Development of an MCH Plan	9
II Community Health Assessment: Identifying Maternal, Child Health Needs and Setting Priorities	21
III Conducting a Formal Problem Analysis and Identifying Effective Interventions	45
IV Developing Objectives, Performance Measures, and an Action Plan	71
V Program Evaluation and Performance Monitoring	91
VI Putting It All Together: Creating a Planning Document	117
VII Available Tools for Public Health Core Data Functions	125

APPENDICES

II-A Public Health Indicators and Their Use	135
II-B California County Data Resources on the Web	137
II-C Tool for Prioritizing Health Indicators	143
II-D Prioritizing Indicators: One County's Results	146
II-E Criteria for Evaluation of Data Sources	150
II-F Survey Development	153
II-G An Introduction to Qualitative Method	161
II-H Title V Indicator Template for Prenatal Care in the First Trimester	173
II-I Facilitator's Guide to Problem Prioritization	176

APPENDICES (continued)

III-A	Overview of Confidence Intervals	189
III-B	Calculating and Interpreting Attributable Risk and Population Attributable Risk	193
III-C	Community Health and Social Services Resource Matrix	201
IV-A-1	Example Logic Model: Community Plan to Promote Breastfeeding	205
IV-A-2	Example Logic Model: Provider Education Program to Promote Breastfeeding	206
IV-B-1	Program Action Plan Matrix	207
IV-B-2	Program Action Plan Matrix: Definitions	208
IV-C	Program Timeline	209
V-A	Evaluation Design	213
V-B-1	Example: Logic Model Tool	219
V-B-2	How to Use a Logic Model: Step by Step	220
V-C	Data Collection Worksheet	223



FHOP Software

Overview of FHOP Software

Many local MCAH programs do not have access to epidemiologists or data analysts to assist with MCAH assessment activities. Others have staff but cannot afford expensive analytical software or staff is not trained to use these. Further in some counties the MCAH program staff expressed the need to access information on an ad hoc basis without having to depend on epidemiologists who are often not readily available.

To address this need FHOP identified a public domain software developed and maintained by the Centers for Disease Control and Prevention called EpiInfo as a useful alternative to meet the needs of these counties. EpiInfo is able to import primary data from questionnaires and secondary data sources such as birth and hospital discharge data. The software is adequate for most of the statistical needs of LHJs. It also contains useful features for making charts, graphs and maps.

To access the software when you are on the FHOP website <http://www.ucsf.edu/fhop/> click on the tab on the left hand column of the home page marked **software**. You will find:

- **EpiBC 2005**: Birth Certificate Data Analysis & Presentation System – a software interface for EpiInfo that can import AVSS data and generate preprogrammed reports
- **EpiHosp**: Hospital Discharge Data Analysis & Presentation System – a software interface for EpiInfo that can import the hospital discharge data sets available on your county page
- **EpiInfo** for EpiHosp – the version of EpiInfo that works with EpiBC and EpiHOSP
- **EpiMap2** – the component of EpiInfo that allows you to map data using the boundary files provided on your county page

This section of the binder contains more detailed descriptions of the EpiBC and EpiHosp software packages.

EpiBC

A priority of the Family Health Outcomes Project (FHOP) at the University of California, San Francisco is to support local public health programs in monitoring the health of women, infants, children and adolescents. As part of its mission to build capacity for health monitoring in local health jurisdictions, FHOP developed a public domain software program called EpiBC. EpiBC was developed to improve access to and utilization of birth certificate data in a standard format that would allow comparisons within and across counties.

Background

Historically, many local health departments and particularly the Maternal and Child and Adolescent Health Directors and Coordinators have not been able to obtain timely reports on births in their counties. A number of factors contributed to this: (1) the inaccessibility of birth certificate data collected and maintained outside their health departments; (2) the inaccessibility of automated birth records; and (3) to the lack of trained data analysts available to MCH programs. In 1992 the Maternal and Child Health Branch of the California Department of Health and Human Services supported the statewide implementation of the Automated Vital Statistics System (AVSS). Through this system, automated birth records were generated at every birthing hospital in the state and either sent directly to the county registrar or for very small counties entered directly into the state AVSS database.

Development of EpiBC

Despite the improved availability of birth certificate data, many counties were still not able to get timely reports. The AVSS report generator allowed the production of some reports, but did not meet the needs of the MCH Directors in performing their assessment and monitoring functions. In response to this, FHOP joined with Ron Williams and Dr. Marc Strassburg to develop a module within the Centers for Disease Control and Prevention's public domain software, EpiInfo. The first EpiBC release, introduced in 1994, called Epi MCH/BC, and was well received and used by more than half of California's MCH programs. Subsequent modifications to the software were made using input from users.

In 2000, the CDC released EpiInfo 2000, a Windows compatible version of the software. EpiBC 2000 followed shortly thereafter. In late 2002 the CDC released an updated Windows version of EpiInfo 2000, EpiInfo 2002, and Dr. Marc Strassburg developed EpiBC 2002 soon afterward.

What is EpiBC 2005?

EpiBC 2005 builds on EpiBC 2002 as a user-friendly public domain software program. EpiBC 2005 has maintained its strength in importing, reviewing, reporting, graphing, and mapping birth certificate data, but it includes a host of new pre-programmed reports, including sets for *Teens*, *Payment for Prenatal Care*, and *Repeat Births within 24 Months*.

Features of EpiBC 2005:

- It is fully Windows compatible and uses Microsoft Access compatible database files;
- EpiMap incorporates elements of the ESRI product ArcView and allows creation of maps with commonly used boundary files (.shp);
- It contains a much-improved graphic capability that produces high quality graphs for use in reports and presentations;
- Output is generated in standard HTML compatible files and can be easily imported into word processing applications or Microsoft Excel spreadsheets;
- Users have a choice of using the pre-programmed features of EpiBC 2005 or the more advanced analytical features of EpiInfo, including tests for statistical significance and logistic regression.

List of Possible Reports, Tables, Graphs and Maps

Reports

Prenatal Care

Mother's Prenatal Care by Trimester

Mother's Ethnic Group

Mother's Parity

Mother's Ethnic Group by Mother's Trimester of Prenatal Care

Mother's Age Group by Mother's Trimester of Prenatal Care

Mother's Education Group by Mother's Trimester of Prenatal Care

Mother's Parity Group by Mother's Trimester of Prenatal Care

Payment for Prenatal Care by Mother's Trimester of Prenatal Care

Prenatal Index

Mother's Ethnic Group by Kessner Index

Mother's Age by Kessner Index

Mother's Education by Kessner Index

Mother's Parity by Kessner Index

Payment for Prenatal Care by Kessner

Mother's Ethnic Group by APNCU

Mother's Age by APNCU

Mother's Education by APNCU

Mother's Parity by APNCU

Payment for Prenatal Care by APNCU

Birth Weight

Frequency of Birth Weight Group Distribution

Birth Weight by Mother's Ethnic Group

Birth Weight by Mother's Age

Birth Weight by Mother's Education

Birth Weight by Parity

Birth Weight by Trimester Prenatal Care Began
Birth Weight by Kessner Index
Birth Weight by APNCU Index
Birth Weight by Payment for Prenatal Care
Birth Weight by Payment for Delivery

Mother's Demographics

Frequency Distribution of Mother's Age
Frequency Distribution of Mother's Ethnicity
Frequency Distribution of Mother's Education
Frequency Distribution of Mother's Parity
Mother's Ethnicity by Mother's Age
Mother's Education by Mother's Age
Mother's Education by Mother's Ethnicity
Mother's Parity by Mother's Ethnicity
Mother's Parity by Mother's Age
Mother's Parity by Mother's Education
Mother's Payment for PNC by Mother's Education
Mother's Payment for PNC by Mother's Ethnicity
Mother's Payment for Delivery by Mother's Education
Mother's Payment for Delivery by Mother's Ethnicity

Payment for Prenatal Care

Frequency Distribution of Payment for Prenatal Care
Trimester Prenatal Care by Payment for Prenatal Care
Kessner Index by Payment for Prenatal Care
APNCU Index by Payment for Prenatal Care
Birth Weight by Payment for Prenatal Care
Mother's Ethnicity by Payment for Prenatal Care
Mother's Age by Payment for Prenatal Care
Mother's Education by Payment for Prenatal Care
Parity by Payment for Prenatal Care

Complications/Abnormal Conditions

Abnormal Conditions and Clinical Procedures of Newborn
Types of Abnormal Conditions and Clinical Procedures of Newborn
Complications and Procedures of Pregnancy and Delivery/Concurrent Illness
Types of Complications and Procedures of Pregnancy and Delivery/Concurrent Illness
Abnormal Conditions and Clinical Procedures of Newborn by Mother's Ethnicity
Complications and Procedures of Pregnancy and Delivery/Concurrent Illness by Mothers Ethnicity
Abnormal Conditions and Clinical Procedures of Pregnancy by Mothers Age
Complications and Procedures of Pregnancy and Delivery/Concurrent Illness by Mothers Age
Abnormal Conditions and Clinical Procedures of Newborn by Mothers PNC
Complications and Procedures of Pregnancy and Delivery/Concurrent Illness by Mothers PNC

Teens

Births by Mother's Age Group
Teen Births by Mother's Age
Teen Births by Mother's Age Group
Teen Births by Birth Weight Group
Teen Births by Parity
Teen Births by Parity Group
Teen Births by Term Deliveries
Teen Births by Mother's Ethnicity
Teen Births by Payment for Delivery
Teen Births by Payment Method for Prenatal Care
Teen Births by Mother's Zip Code
Mother's Age by Race- For Teens
Birth Weight by Mother's Age- For Teens
Frequency of Birth Weight Group Distribution- For Teens
Birth Weight by Mother's Gestational Age- For Teens
Birth Weight by Mother's Ethnic Group- For Teens
Birth Weight by Mother's Education- For Teens
Birth Weight by Parity- For Teens
Birth Weight by Trimester Prenatal Care Began- For Teens
Birth Weight by Kessner Index- For Teens
Birth Weight by APNCU Index- For Teens
Birth Weight for Payment for Prenatal Care- For Teens
Birth Weight by Payment for Delivery- For Teens
Teen Births by Mother's Age- For Teens With Prior Deliveries
Teen Births by Term Deliveries- For Teens With Prior Deliveries
Birth Weight by Mother's Age- For Teens With Prior Deliveries
Frequency of Birth Weight Group Distribution- For Teens With Prior Deliveries
Birth Weight by Mother's Ethnic Group- For Teens With Prior Deliveries
Birth Weight by Mother's Education- For Teens With Prior Deliveries
Birth Weight by Parity- For Teens With Prior Deliveries
Birth Weight by Trimester Prenatal Care Began- For Teens With Prior Deliveries
Birth Weight by Kessner Index- For Teens With Prior Deliveries
Birth Weight by APNCU Index- For Teens With Prior Deliveries
Birth Weight by Payment for Prenatal Care- For Teens With Prior Deliveries
Teen Births by Mother's Age- For Teens With No Prior Deliveries
Teen Births by Term Deliveries- For Teens With No Prior Deliveries
Birth Weight by Mother's Age- For Teens With No Prior Deliveries
Frequency of Birth Weight Group Distribution- For Teens With No Prior Deliveries
Birth Weight by Mother's Ethnic Group- For Teens With No Prior Deliveries
Birth Weight by Mother's Education- For Teens With No Prior Deliveries
Birth Weight by Parity- For Teens With No Prior Deliveries
Birth Weight by Trimester Prenatal Care Began- For Teens With No Prior Deliveries
Birth Weight by Kessner Index- For Teens With No Prior Deliveries
Birth Weight by APNCU Index- For Teens With No Prior Deliveries
Birth Weight by Payment for Prenatal Care- For Teens With No Prior Deliveries

Pre-Term Births

Frequency of Birth Weight Group Distribution- Preterm Births
Preterm Births by Mother's Ethnic Group
Preterm Births by Mother's Age
Preterm Births by Mother's Education
Preterm Births by Parity
Preterm Births by Trimester Prenatal Care Began
Preterm Births by Kessner Index
Preterm Births by APNCU Index
Preterm Births by Payment for Prenatal Care
Preterm Births by Payment for Delivery
Preterm Births by Birth Weight by Mother's Ethnic Group
Preterm Births by Birth Weight by Mother's Age
Preterm Births by Birth Weight by Mother's Education
Preterm Births by Birth Weight by Parity
Preterm Births by Birth Weight by Trimester Prenatal Care Began
Preterm Births by Birth Weight by Kessner Index
Preterm Births by Birth Weight by APNCU Index
Preterm Births by Birth Weight by Payment for Prenatal Care
Preterm Births by Birth Weight by Payment for Delivery

Special- Repeat Births 24 Months

Year of Birth
Child's Sex
Months between Last Live Birth and Child's Date of Death
Birth Attendant (3 categories)
Birth Weight Groups
Child's Ethnicity
Child's Race
Caesarean Section
Facility Name
Mother's Age Group
Father's Age Group
Gestational Week Group
Kessner Index of Prenatal Care Adequacy
APNCU Index
Method of Delivery
Late or No Prenatal Care
Prenatal Care Begun in First Trimester
Payment for Prenatal Care
Payment for Delivery
Mother's Age Group by Months between Last Live Birth and Child's Date of Death
Mother's Age Group by Mother's Race Group
Mother's Age Group by Mother's Ethnicity
Mother's Age Group by Birth Weight Group
Father's Age Group by Birth Weight Group

Mother's Ethnicity by Birth Weight Group
 Father's Ethnicity by Birth Weight Group
 Child's Hispanic Origin by Birth Weight Group
 Mother's Education Group by Birth Weight Group
 Father's Education Group by Birth Weight Group
 Parity Group by Birth Weight Group
 Trimester Prenatal Care Began by Birth Weight Group
 Number of Prenatal Care Visits Group by Birth Weight Group
 Kessner Index by Birth Weight Group
 APNCU Index by Birth Weight Group
 Method of Delivery by Birth Weight Group
 Place of Delivery by Birth Weight Group
 Mother's Age Group by Birth Weight Group stratified by Number of Prenatal Care Visits Group
 Mother's Age Group by Birth Weight Group stratified by Trimester Prenatal Care Began
 Mother's Race Group by Birth Weight Group stratified by Kessner Index
 Mother's Ethnicity by Birth Weight Group stratified by Kessner Index
 Mother's Age Group by Birth Weight Group stratified by Kessner Index
 Mother's Education Group by Birth Weight Group stratified by Kessner Index
 Mother's Race Group by Birth Weight Group stratified by APNCU Index
 Mother's Ethnicity by Birth Weight Group stratified by APNCU Index
 Mother's Age Group by Birth Weight Group stratified by APNCU Index
 Mother's Education Group by Birth Weight Group stratified by APNCU Index
 Mother's Race Group by Birth Weight Group stratified by Child's Sex
 Mother's Age Group by Birth Weight Group stratified by Child's Sex
 Mother's Education Group by Birth Weight Group stratified by Child's Sex

Special- Delivery 2005 and 2006 Only

Tables

One-Way

Year of Birth
 Child's Sex
 Birth Attendant Birth Weight Groups (3 categories)
 Birth Weight Groups (11 categories)
 Child's Ethnicity
 Child's Race
 Caesarean Section
 Facility Name
 Mother's Age Group
 Father's Age Group
 Gestational Week Group
 Kessner Index of Prenatal Care Adequacy
 APNCU Index
 Method of Delivery

Late or No Prenatal Care
Prenatal Care Begun in First Trimester
Payment for Prenatal Care
Payment for Delivery

Two-Way

Mother's Demographics

Mother's Age by Mother's Race
Mother's Age by Mother's Ethnicity

Birth Weight and Mother's Demographics

Mother's Race by Birth Weight
Mother's Age by Birth Weight
Mother's Education by Birth Weight

Birth Weight and Father's Demographics

Father's Race by Birth Weight
Father's Age by Birth Weight
Father's Education by Birth Weight

Birth Weight and Parity

Parity by Birth Weight

Birth Weight and Prenatal Care

Trimester of first PNC Visit by Birth Weight
Number of PNC Visits by Birth Weight
Kessner Index by Birth Weight
APNCU by Birth Weight

Birth Weight and Delivery Method

Delivery Method by Birth Weight

Birth Weight and Place of Delivery

Place of Delivery by Birth Weight

Three-Way

Mother's Age Group by Birth Weight by Number of Prenatal Care Visits Group
Mother's Race by Birth Weight by APNCU Index
Mother's Race by Birth Weight by Kessner Index
Mother's Race by Birth Weight by Child's Gender

Graphs

Counts and Percents

Mother's Age Groups
Mother's and Father's Age Groups
Mother's Ethnic Group

Parent's Ethnic Group
Month Prenatal Care Began
Number of Prenatal Visits
Parent's Education Group
Birth Weight Group (3 categories)
Birth Weight Group (11 categories)
Kottelchuck APNCU Index
Kessner Index

Scatter Plots

Birth Weight Regressed by Month Prenatal Care Began
Birth Weight Regressed on Number of Prenatal Care Visits
Birth Weight Regressed on Mother's Age

Maps

Averages

Average Birth Weight by Zip or Census Tract
Average Mother's Age by Zip or Census Tract
Average Father's Age by Zip or Census Tract
Average Month Prenatal Care Began by Zip or Census Tract
Average Number of Prenatal Visits by Zip or Census Tract
Average C-Sections by Zip or Census Tract
Average Mother's Education by Zip or Census Tract
Average Father's Education by Zip or Census Tract

Percents

Percent of County Births by Zip or Census Tract
Percent of Births with Low Birth Weight by Zip or Census Tract
Percent of Births to Teens by Zip or Census Tract
Percent of Births Not Adequate Kessner by Zip or Census Tract
Percent of Births on Medi-Cal by Zip or Census Tract
Percent of Births with Late or No Prenatal Care by Zip or Census Tract
Percent of Births by Prenatal Care Begun in First Trimester by Census Tract

Counts

Number of Births by Zip or Census Tract
Number of Low Birth Weight Births by Zip or Census Tract
Number of Teen Births by Zip or Census Tract
Number of Births Not Adequate Kessner by Zip or Census Tract
Number of Births Not Adequate APNCU by Zip or Census Tract
Number of C-Sections by Zip or Census Tract

EpiHosp

The Utility of Hospital Discharge Data and Use of EpiHOSP for Needs Assessment of Childhood Morbidity

Monitoring indicators of childhood morbidity presents numerous challenges since there are few population-based data sources available that include child-specific, consistent, reliable information. The hospital discharge data set is a rich source of information that may be used for examining childhood morbidity as part of needs assessment, planning and monitoring functions.

Hospital Discharge Data

The hospital discharge data set (HDD) contains information for every hospital discharge in the state. Data on all individual patient records is abstracted from the UB92 billing form and submitted to the Office of Statewide Health Planning and Development (OSHPD). Data are available from January 1983 through December 2005. OSHPD has a number of versions of these data requiring increasing levels of security by virtue of the individual identifiers in the records. Files with the greatest utility for linkage contain age, date-of-birth (DOB), gender, race and ethnicity, ZIP code of residence, and encrypted Social Security Number (SSN). Access to these files requires a complex human subjects approval process. Other files containing fewer confidential data elements are made available for public use. Hospital discharge data can be linked to other population-based data sets that contain personal identifiers, such as birth and death files, or Medi-Cal claims, in order to analyze data at the level of the individual. It can also be linked geographically to data sets containing ZIP codes, such as census data, in order to do a small area analysis. Variables included in the confidential data set are described below.

Demographic

- Date of birth
- Age (calculated from admission date and date of birth if less than 3 years old)
- Gender
- Race/ethnicity
- Social security number (July 1990 forward)

Geographic

- 5 digit ZIP-code of residence
- County of residence
- 5-digit ZIP-code of hospital
- County of hospital
- Hospital (OSHPD identification number)

- Type of care (A hospital can provide multiple types of care at more than 1 location)

Diagnostic and Treatment

- Principal diagnoses and other diagnoses (up to 24)
- Principal E-codes and other E-codes (up to 4) — E-codes describe the mechanism and intent of an injury (1990 forward)
- Principal procedures and other procedures (up to 20)

Financial

- Expected principal source of payment
- Total charges

Descriptors of Access

- Admission date
- Discharge date
- Admission source

Indicators of Severity

- Diagnosis Related Group
- Major Diagnosis Category
- Length of stay
- Days between admission and principal procedure
- Procedure dates
- Types of procedures
- Disposition

EpiHOSP is a software package distributed without charge to California health jurisdictions to enable them to review, analyze, report, and graph key variables from the California hospital discharge data for children and young adults 28 days to 24 years. EpiHosp is an add-on layer for EpiInfo, public domain software designed by the Centers for Disease Control and Prevention. The Windows version of EpiHosp includes drop down menus and a set of preprogrammed reports and graphs. It also contains built-in tutorials, references and documentation.

The Family Health Outcomes Project preprocesses the raw discharge data so that when it is imported into EpiHOSP the user will not have to do any cleaning of the data set, or coding or grouping of variables. Each record in the files represents a discharge from a California hospital for California residents ages 28 days through 24 years of age. Pregnancy-related records for young women over the age of 19 are excluded.

Records are not unduplicated, that is, when an individual is discharged twice during the same year for a single episode of illness, the resulting database will contain one record for each discharge from a hospital licensed to provide

general acute care, rehabilitation, psychiatric, or alcohol or drug abuse treatment. Preprocessing steps include:

- **AGE.** Age groups are made that conform to U.S. Census groupings. This allows use in calculating population based rates and preserves confidentiality. In addition to age at admission in years, we categorize children younger than three years of age into their age at admission in 3-month categories.
- **RACE/ETHNICITY.** Race/ethnic groups are assigned into five mutually exclusive categories using decision rules followed by the California Department of Finance and Federal guidelines for longitudinal race/ethnic bridging. This allows the use of state inter-census population estimates to calculate population based rates, using consistent definitions longitudinally.
- **DIAGNOSES AND PROCEDURES.** The principal and four secondary diagnoses are grouped into five mutually exclusive major categories with subcategories below them. The major categories are: Ambulatory care sensitive, injury (E-code or diagnosis code), pregnancy, mental illness or substance abuse, medical, and surgical conditions. All secondary diagnosis fields were searched to identify if they had any indication of asthma, of mental illness or substance abuse, or any indication of an adverse event by definition (diagnosis or E-Code).

Similarly, the principal procedure is grouped into four mutually exclusive major categories: minor diagnostic, minor therapeutic, major diagnostic, major therapeutic, with subcategories below them. We also have included indicators to flag if any secondary procedures fell into one or more of these categories.

Diagnosis and procedure subcategories are based on the Clinical Classification System (CCS) developed at the Agency for Healthcare Research and Quality (AHRQ). The CCS is a tool for clustering patient diagnoses into a manageable number of clinically meaningful categories. CCS offers researchers the ability to group conditions and procedures without having to sort through thousands of codes. This "clinical grouper" makes it easier to quickly understand patterns of diagnoses so that health plans, policy makers, and researchers can analyze costs, utilization, and outcomes associated with particular illnesses and procedures.

The CCS collapses diagnosis and procedure codes from the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM), which contains more almost 14,000 diagnosis codes and almost 3,800 procedure codes. The CCS classifies these codes consistently from 1983 forward, to permit longitudinal analyses to examine for trends.

Without the CCS, the large number of ICD-9-CM codes makes statistical analysis and reporting difficult and time-consuming. Available in two levels, we have used the single-level CCS which is the most useful for ranking diagnoses and procedures and for direct integration into risk adjustment and other software.

Finally, for those who might want to do detailed analyses, ICD-9 codes are included for the principal and up to three secondary diagnoses and for the principal procedure.

- **INJURY.** E-Codes (External Cause of Injury) are a special category of the ICD-9 diagnosis codes which has been available in the HDD since 1990. The E-codes are related to other variables identifying the injury mechanism and intent. We provided the principal E-code, the mechanism and intent variables, and a summary variable that cross-classifies these three into one easy to use indicator.

Similar to the diagnosis and procedure codes, E-codes have been eliminated and new ones added since they were introduced. We obtained a cross-walk file from the Injury Control Resource Network that permitted us to correctly assign E-codes, intent, and mechanism longitudinally, even when certain codes had been deleted or changed in assignment.

- **CHARGES.** About 8 percent of records are missing charges. This occurs primarily because Kaiser hospitals and Children's hospitals are not required to provide these. We imputed charges on records without them, then we normalized the charges to current dollars, using the 2005 Western Urban Medical Care Consumer Price Index. Finally, we assigned the normalized charges to 20 categories each representing 5% of all discharges.

Thus, this version of Epi HOSP has the following charge-related variables: charges recorded in the year the discharge occurred, charges normalized to current dollars to permit meaningful longitudinal analyses, charges in categories to permit categorical analysis, and an indicator that the charge was imputed, should the user wish to exclude those records from any analysis.

- **ANTICIPATED SOURCE OF PAYMENT.** This variable has changed definitions several times since 1983. We grouped the anticipated payor into five mutually exclusive categories to permit longitudinal analyses. This included grouping MediCal and MediCare into one category. This was done because very few children have this type of insurance and the category is too small to be analyzed otherwise.

In 1999, OSHPD added two new payor variables. One identifies the insurance plan, the other identifies if the plan is managed care or some other type. Anticipated payor is available for all years, the other two variables are available only after 1999.

- **ADMISSION SOURCE.** This variable has changed definitions several times since 1983. For EpiHosp, we have grouped it into four mutually exclusive categories to permit longitudinal comparisons.
- **ADMISSION DAY AND MONTH.** Each record was classified as to the month and day of the week the admission occurred.
- **DISPOSITION.** This is another variable that has changed definitions since 1983. For EpiHosp, we have grouped it into six mutually exclusive categories to permit longitudinal comparisons.

- **LENGTH OF STAY.** This variable has been categorized into categories, based on analysis of the actual distribution of stays since 1983.
- **TYPE OF CARE.** Because we added mental health and substance abuse diagnoses as a major category, we have included discharges from all types of care: general acute, skilled nursing, psychiatric, alcohol and drug, and rehabilitation.
- **HOSPITAL.** Since 1983, more than 750 hospitals providing all types of care have operated in California. Today, less than 500 hospitals are open and names of most have changed over time. We have used the most recent available name for the hospitals. If they closed, we use their name at that time.

Many hospitals owned by the same hospital system consolidate their reporting. Thus hospitals may appear to have closed but may in fact be submitting consolidated data. Longitudinal analyses of hospital access will be less successful for this reason.

- **COUNTY.** Each California jurisdiction gets HDD for their county or city jurisdiction. We have provided a variable identifying the county where the patient lives and the county where the patient was hospitalized. The file includes out-of-county residents hospitalized in the given county. For example, the San Francisco file will include discharges for all of its resident children regardless of the county where they were admitted. It also will contain all discharges from hospitals in their county of children who lived in other counties.

Epi HOSP provides MCAH staff with a powerful tool to analyze hospital discharge data for needs assessment. Analysis of the data can assist local MCAH staff in:

- Monitoring and evaluating the impact of changes in health care delivery on access to and quality of care
- Performing injury surveillance
- Monitoring health status and health outcomes for those conditions included in the ICD9 and E-codes
- Performing cost analyses

Monitoring and Evaluating the Impact of Changes in Health Care Delivery

Indicators of outcomes that may be affected by changes in the delivery of services, including the transition to managed care, can be examined over time to observe possible changes. One promising approach is the measurement of hospitalizations for conditions that, if treated early in an ambulatory setting, may avert the necessity of receiving more costly treatment within a hospital. Preventable hospitalization can be measured by using one or two marker diagnoses (e.g. ruptured appendix). While this approach may be useful in conducting policy analyses on large data sets, the much smaller numbers occurring in local health jurisdictions yield inconclusive or misleading results. John Billings has developed a set of ambulatory care sensitive (ACS) diagnoses that

can be used in aggregate to provide enough numbers to make analysis at the local level feasible. We obtained his updated code to assign these, and added some ACS indicators that other research has shown are particularly relevant for children.

Three broad categories of ACS diagnoses can be identified within the HDD.

1. *Avoidable conditions*—*primary prevention would be effective in preventing the conditions*

- Immunization related, invasive cancer, congenital syphilis, iron deficiency anemia, other nutritional deficiencies, failure to thrive

2. *Acute conditions*—*early care will help to control acute or episodic conditions*

- Bacterial pneumonia, dehydration, hypoglycemia, pelvic inflammatory disease, severe ear, nose and throat infections, convulsions, kidney/urinary infection, gastroenteritis

3. *Chronic conditions*—*consistent care will help to manage and avoid the serious consequences of a chronic disease*

- Asthma, pulmonary tuberculosis, diabetes, epilepsy

ICD-9 codes for ACS diagnoses are grouped during the preprocessing of HDD. Epi HOSP has a number of prepared reports it can automatically generate to present data on ambulatory care sensitive diagnoses, and these are augmented with the addition of the CCS classifications. Analysis over time can indicate if changes in health care delivery systems appear to result in a greater emphasis on prevention, or if negative outcomes associated with cost constraints are occurring.

For example, using Epi HOSP the user can examine hospitalizations for asthma by source of payment, geographic location or race in order to identify the characteristics associated with children admitted for asthma. The user can also run a prepared report in Epi HOSP that presents data on hospitalizations for the top ten ACS conditions.

Another indicator of access to care is source of admission. Studies have shown that children in managed care plans are less likely to be admitted through the ER. The user can run report on source of admit to compare children with different types of health coverage or with different demographic or age characteristics. Quality of care can be explored using length of stay, number and types of procedures, in hospital adverse events and disposition.

We have developed a set of excel spreadsheets summarizing these major categories longitudinally. These will enable a local jurisdiction to calculate rates to determine if they are above or below state averages, and whether there have been any changes over time in local indicators.

Performing Injury Surveillance

Hospital discharge data includes E-codes that identify the external cause of injury, such as whether the injury occurred while the injured person was a motor vehicle occupant. E-codes also categorize each injury by intent. Intentional injuries include injuries inflicted by another person with the intent to injure, harm or kill, including child battering and rape or self inflicted such as suicide, attempted suicide and intentionally self-inflicted injuries.

With Epi HOSP, the user can run a standard report that lists the top ten injury diagnoses (intentional and unintentional) or focus only on the top ten intentional injury diagnoses. A specific injury, such as skull fractures among children 0 to 4 years old, can be examined to identify whether the majority of them involved motor vehicle crashes or falls. An appropriate intervention strategy can then be designed to address the cause of skull fractures in this population.

Monitoring Health Status/Outcomes/Utilization

Hospital discharge data can be used to analyze specific indicators of health status, outcome or utilization. For example, ICD-9 codes can be identified and grouped using the CCS or FHOP classifications to describe Healthy People 2010 indicators such as teen births, vaccine-preventable diseases and specific nutritional deficiencies. Once an indicator of health status or outcome is chosen for study, its prevalence, severity (length of stay), cost, etc. can be examined.

Performing Economic Analysis

Data on charges are included in HDD. Charges are one proxy measure for the underlying cost of providing care. The average discount that a hospital accepts (the difference between charges and actual payment) can be estimated using data from the annual hospital disclosure report available from OSHPD. There are a number of limitations to using charges. In order to look at trends one would have to adjust for inflation as we have done. Further, children's hospitals and Kaiser hospitals are exempt from reporting charges. We have imputed charges by applying average charges from other types of hospitals using the child's age, DRG and length of stay. Length of stay (a reflection of days lost from school or work) and disposition are other measures of cost. Once defined for a specific diagnosis or diagnostic group, cost can be compared to the expense of providing primary or preventive care. In addition, cost can be one of the criteria used to rank diagnoses, injuries or conditions requiring hospitalization. Epi HOSP includes a pre-grouped charge variable containing the median value within the group, converted to current dollars. This variable can be used to examine the median and average cost for specific ICD-9 codes or groupings.

List of Possible Reports and Graphs

Reports

OVERVIEW > Patient Population

Demographics

Age in years at admission by gender

Age in years at admission by race/ethnicity

Age in years at admission by race/ethnicity and gender

Zip of residence

Zips of patient residence by age in years

Zips of patient residence by race/ethnicity

Clinical Classes

All clinical classes by gender

All clinical classes by age in years at admission

All clinical classes by race/ethnicity

All clinical classes by age in years at admission and gender

All clinical classes by age in years at admission and race/ethnicity

Hospitals

Hospital of admission by age in years

Hospital of admissions by race/ethnicity

Hospital of admission by expected source of payment

Type of Care

Type of care frequency

Type of care by age

Type of care by race/ethnicity

Type of care by age and gender

Type of care by length of stay

Type of care by expected source of payment

OVERVIEW > Access

Source of Admission

Admission source frequency

Admission source by age in years at admission

Admission sources by race/ethnicity

Admission source by age in years at admission and gender

Admission source by age in years at admission and race/ethnicity

Admission source by clinical class

Admission source by expected principal source of payment

Payment type

Expected principal source of payment frequency
Expected principal source of payment by age in years at admission
Expected principal source of payment by race/ethnicity
Expected principal source of payment by age in years at admission and gender
Expected principal source of payment by age in years at admission and race/ethnicity
Payment type by Clinical Class

SELECTED DIAGNOSES

Mental Health as principal diagnosis

Mental health frequency
Mental health by age
Mental health by race/ethnicity
Mental health by gender
Mental health by age and gender
Mental health by source of admission
Mental health by expected source of payment

Mental Health as any diagnosis

Any mental health frequency
Any mental health by age
Any mental health by race/ethnicity
Any mental health by gender
Any mental health by age and gender
Any mental health by source of admission
Any mental health by expected source of payment

Substance Abuse as principal diagnosis

Substance abuse frequency
Substance abuse by age
Substance abuse by race/ethnicity
Substance abuse by gender
Substance abuse by age and gender
Substance abuse by source of admission
Substance abuse by expected source of payment

Substance Abuse as any diagnosis

Any substance abuse frequency
Any substance abuse by age
Any substance abuse by race/ethnicity
Any substance abuse by gender
Any substance abuse by age and gender
Any substance abuse by source of admission
Any substance abuse by expected source of payment

Asthma as principal diagnosis

Asthma frequency
Asthma by age
Asthma by race/ethnicity
Asthma by gender
Asthma by age and gender
Asthma by source of admission
Asthma by expected source of payment

Asthma as any diagnosis

Any asthma frequency
Any asthma by age
Any asthma by race/ethnicity
Any asthma by gender
Any asthma by age and gender
Any asthma by source of admission Any asthma by expected source of payment

All pregnancy related conditions

Frequency cases
Age in years at admission
Race/ethnicity of the patient
Expected principal source of payment
Total days from admission to discharge date
Diagnostic related groups
Principal procedure classes
Patient's county of residence
FHOP diagnostic class

ACS Conditions

ACS vs non ACS cases frequency
ACS vs non ACS by age in years
ACS vs non ACS by age in days
ACS vs non ACS by race/ethnicity
ACS vs non ACS by admission source
ACS vs non ACS by expected principal source of payment
ACS vs non ACS by Total days from admission to discharge date
ACS vs non ACS by disposition
ACS vs non ACS by All charges for services rendered adjusted to 2005 price index

INJURIES

All injuries

Intent frequency
Injury cross-classification frequency
Injury cross-classification by age in years at admission
Injury cross-classification by gender
Injury cross-classification by race/ethnicity

Injury cross-classification by admission source
Injury cross-classification by expected principal source of payment
Injury cross-classification by total days from admission to discharge date
Injury cross-classification by all charges for services rendered adjusted to 2005 price index
Injury cross-classification by patient's county of residence
Injury cross-classification by Any Mental Health
Injury cross-classification by Any Substance Use

Intentional only

Injury cross-classification
Injury cross-classification by age in years at admission
Injury cross-classification by gender
Injury cross-classification by race/ethnicity
Injury cross-classification by admission source
Injury cross-classification by expected principal source of payment
Injury cross-classification by total days from admission to discharge date
Injury cross-classification by all charges for services rendered adjusted to 2005 price index
Injury cross-classification by Any Mental Health
Injury cross-classification by Any Substance Use

Unintentional only

Injury cross-classification
Injury cross-classification by age in years at admission
Injury cross-classification by gender
Injury cross-classification by race/ethnicity
Injury cross-classification by admission source
Injury cross-classification by expected principal source of payment
Injury cross-classification by total days from admission to discharge date
Injury cross-classification by all charges for services rendered adjusted to 2005 price index
Injury cross-classification by Any Mental Health
Injury cross-classification by Any Substance Use

OUTCOMES

Length of Stay

Length of stay by age in years at admission
Length of stay by race/ethnicity
Length of stay by age in years at admission and gender
Length of stay by Clinical Class
Length of stay by principal source of payment

Adverse outcomes

Adverse outcomes by age
Adverse outcome by race/ethnicity

Adverse outcome by age and gender
Adverse outcomes by Clinical Class
Adverse outcomes by principal source of payment

Disposition- event ending patient's stay or arrangement made by reporting facility

Disposition frequency
Disposition by age in years at admission
Disposition by race/ethnicity
Disposition by age in years at admission and gender
Disposition by Clinical Class
Disposition by expected principal source of pay

Total Charges

Charges frequency
Charges by age in years at admission
Charges by race/ethnicity
Charges by age in years at admission and gender
Total charges by Clinical Class
Total charges by Expected principal source of pay

Graphs

Clinical Class

Clinical class by type, bar graph count
CCS by age, bar graph percent
CCS by race and ethnicity, bar graph percent

Ages

Age at admission (age group), bar graph count
Age at admission (age group), pie graph

Sex

Gender of patient, pie graph

Race

Race/ethnicity, bar graph count
Race/ethnicity, pie graph

Source

Source of admission, bar graph count
Source of admission, pie graph

Payer source

Payer source, bar graph count
Payer source, pie graph

Stay

Length of stay, bar graph count
Length of stay, pie graph

Asthma

Any asthma, bar graph count
Any asthma, pie graph
Any asthma by age, bar graph count
Any asthma by age, pie graph
Any asthma by race/ethnicity, bar graph count
Any asthma by race/ethnicity, pie graph

Pregnancy

Any pregnancy, pie graph
Pregnancy by age, bar graph count
Pregnancy by age, pie graph
Pregnancy by race/ethnicity, bar graph count
Pregnancy by race/ethnicity, pie graph

Injury

Any injury by age, bar graph count
Any injury by race/ethnicity, bar graph percent
Injury by age and intent, bar graph count
Injury by intent and race/ethnicity, bar graph percent

Mental Health

Any mental health, pie graph
Any mental health by age, bar graph count
Any mental health by age, pie graph
Any mental health by race/ethnicity, bar graph count
Any mental health by race/ethnicity, pie graph

How Do I Obtain Hospital Discharge Data and EpiHOSP?

The Family Health Outcomes Project has obtained and preprocessed HDD for use with EpiHOSP for 1993-2005 with definitions current through 2005. Under a joint agreement with OSHPD, FHOP can give each local jurisdiction the HDD data and ZIP code boundary files for its jurisdiction only. (FHOP requests that the MCAH Director and other pertinent staff who will analyze HDD receive the EpiHOSP software and training in its use.) For more information on obtaining HDD data and EpiHOSP, call:

Family Health Outcomes Project

University of California, San Francisco
500 Parnassus Ave. Room MU-337, San Francisco, CA 94143-0900
Phone: 415-476-5283 Fax: 415-476-6051 fhop@fcm.ucsf.edu



Appendix

FHOP PASSWORD REQUEST FORM

This is a form to request data for your county that is accessible through the FHOP website. Due to the confidential nature of some data, we must ensure the data remains confidential. If you would like access to your county's data, please follow these directions:

1. Fill out your full name, title, and county. Sign and date the confidentiality agreement.
2. Fill out any other authorized users' full names, titles, and county. Have each authorized user sign and date the confidentiality agreement.
3. Have your county's MCH Director or authorizing officer sign and date the password request.
4. Mail or fax to FHOP: 415-476-6051 (fax)
500 Parnassus Ave. Room MU-337 San Francisco, CA 94143-0900

I am requesting access to my county's data available on the FHOP website:

I understand this password allows access to confidential data for my county on the FHOP website.
I will not share this password with any person(s). I also understand that sharing of this password is prosecutable by law.

Your Full Name _____
Title _____ County _____
Signature _____ Date _____
Contact info (email address/ phone number) _____

Authorized Users

I understand this password allows access to confidential data for my county on the FHOP website.
I will not share this password with any person(s). I also understand that sharing of this password is prosecutable by law.

Full Name _____
Title _____ County _____
Signature _____ Date _____
Contact info (email address/ phone number) _____

Full Name _____
Title _____ County _____
Signature _____ Date _____
Contact info (email address/ phone number) _____

MCH Director Approval

I approve FHOP to give the above person(s) access to my county's data on the FHOP website.

Full Name _____
Title _____ County _____
Signature _____ Date _____

FHOP Office Use ONLY

Date Received: _____

Approved By: _____

Date Password Given: _____

Given By: _____

SIGN UP FOR FHOP EXPRESS NEWSLETTER!

To inform you about exciting FHOP activities we have established an electronic newsletter called "FHOP Express"!

As a registered member, you will receive the following benefits:

- Updates on the latest FHOP activities
- First notification of upcoming FHOP Trainings
- FHOP software updates
- First look at new FHOP publications
- and much more...

Fill this out to be added to our listerv.

FULL NAME: _____

ORGANIZATION: _____

EMAIL ADDRESS: _____
(Please print clearly)

WHAT WOULD YOU LIKE TO SEE INCLUDED IN THE NEWSLETTER? ____

Thank you for your interest in FHOP! You will be receiving FHOP Express very shortly.

For FHOP office use only

Date received: _____

Received By: _____

Date Entered: _____

Sent By: _____

