

How Researchers Can Access CDPH Vital Records Data

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Using Data to Improve Maternity Care in California:
Research Collaborations and Future Opportunities

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AGENDA

- Background and Vital Records Facts for 2013
- Vital Records Data and Associated Statutes
- Vital Records Data Used for Maternal Health Research
- Pre-compiled Vital Records Data
- General Release Policies

BACKGROUND AND VITAL RECORDS FACTS

VITAL RECORDS HISTORY

“Less than a decade after the formation of California State Government in 1850, a law was enacted requiring the State to register vital events. The law was repealed in 1860. Effective statewide coordination of the registration of births, deaths, and marriages began in California in 1905 when the Bureau of Vital Statistics was established.”

Reference: Vital Statistics of California, 2004, Page 173

CALIFORNIA NATALITY STATISTICS

Nativity 2013	
Oldest Father	89 years
Oldest Mother	74 years – and she had twins!
Youngest Father	13 years
Youngest Mother	12 years
Highest Live Birth Order	19
Day Most Births Occurred	September 20 th – 1,711
Day Fewest Births Occurred	May 12 th – 911 live births
Number of Live-born Twins	7,987 (individual babies)
Number of Live-born Triplets	149 (individual babies)
Number of Live-born Quintuplets	12 (individual babies)

REFERENCE: Categories taken from the West Virginia Department of Health and Human Services website <http://www.wvdhhr.org/bph/oehp/hsc/stat&tri.htm>

VITAL RECORDS DATA AND ASSOCIATED STATUTES

VARIOUS TYPES OF VITAL RECORDS DATA PER THE HEALTH AND SAFETY CODE (HSC)

VITAL RECORDS DATA TYPES	STATUTES
Non-Comprehensive Indices For Public Use	HSC § 102230
Non-Comprehensive Indices for Law Enforcement & Fraud Prevention Use	HSC § 102230
Comprehensive Indices	HSC § 102230
Comprehensive Indices for Government Use	
Non-Confidential Data Files/Confidential Data Files	HSC § 102231
Confidential Data Files For Government or Research Use	HSC § 102430 HSC § 102231

VITAL STATISTICS ADVISORY COMMITTEE

The Health and Safety Code, Section 102465, requires the State Registrar to establish the Vital Statistics Advisory Committee (VSAC).

This committee reviews and provides recommendations to the State Registrar on the adequacy of procedures pertaining to the release of vital statistics and confidentiality of personal health and medical information.

VITAL RECORDS DATA USED FOR MATERNAL HEALTH RESEARCH

BIRTH CERTIFICATE DATA

Birth certificate data are used to:

- Monitor the characteristics and health of women giving birth and their infants.
- Determine public policy and funding for local, state, and national maternal and child health programs.
- Research to improve maternal and infant health.

Reference: Birth Certificate Data: Essential for Improving the Nation's Health, National Center for Health Statistics, CDC, F. Menacker and JMartin, NCHS

DATA ITEMS USED FOR HEALTH RESEARCH

- Mother's age (e.g., teen births, older mothers)
- Mother's race and Hispanic origin
- Medical risks (e.g., diabetes, hypertension)
- Method of delivery (cesarean)
- Prenatal care
- Gestational age (preterm birth)
- Birthweight (low birthweight)

Reference: Birth Certificate Data: Essential for Improving the Nation's Health, National Center for Health Statistics, CDC, F. Menacker and JMartin, NCHS

BIRTH COHORT DATA

BIRTH COHORT FILE STRUCTURE

The variables listed here are only examples. There are many more variables included on the Cohort Files.

BIRTH DATA														DEATH DATA					
SFN	BABY		MEDICAL DATA					FATHER			MOTHER			SFN	AGE	DATE	CAUSE	MANNER	
	Name	DOB	Gest	Care	Weight	Plurality	Delivery	Name	Age	Race	Name	Age	Race						
Live Births Survived 509,486	123456																		
	123457																		
	123458																		
	123459																		
	123460																		
	123461																		
	123462																		
	123463																		
	123464																		
	123465																		
	123466																		
	123467																		
	123468																		
	123469																		
Live Births Died 2,509	123470																		
	123471																		
	123472																		
	123473																		
	123474														123456	2 hrs		P072	
	123475														123457	10 min		P700	Infant
	123476														123458	6 mos		Q349	Deaths
Fetal Deaths 2,640	123477														123459	7 hrs		P072	2,509
	123478														123460	8 days		Q349	
	123479														123461	3 mos		P700	
	123480														123462	4 days		P072	
	X00300														xxx			P072	
	X00301														xxx			Q000	Fetal
	X00302														xxx			Q349	Deaths
	X00303													xxx			P700	2,640	
X00304														xxx			P072		
X00305														xxx			Q000		
X00306														xxx			P072		

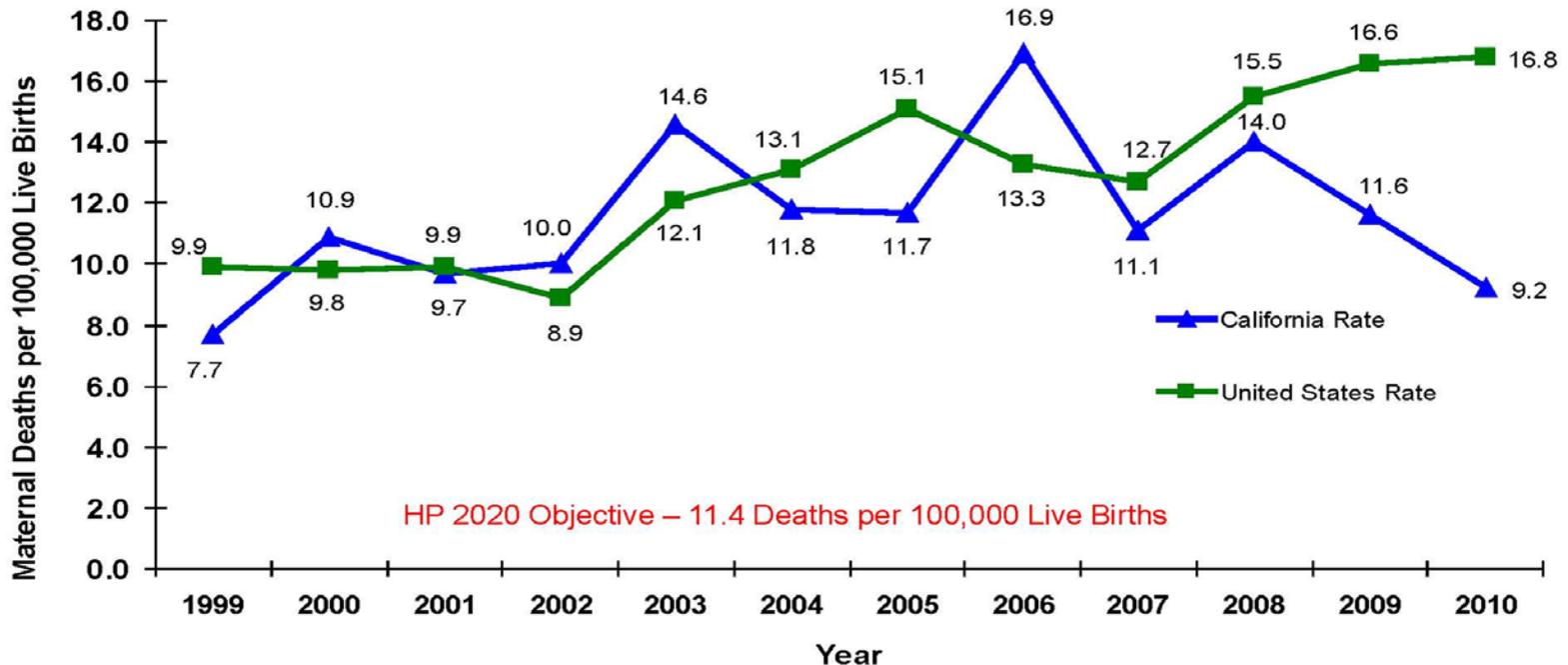
- Birth data from the Live Birth Certificates.
- Death data from the Death Certificates.
- Fetal death data from the Fetal Death Certificates.

PRE-COMPILED VITAL RECORDS DATA

BIRTH AND DEATH CERTIFICATE DATA REPORTS



Maternal Mortality Rate, California and United States; 1999-2010



SOURCE: State of California, Department of Public Health, California Birth and Death Statistical Master Files, 1999-2010. Maternal mortality for California (deaths \leq 42 days postpartum) was calculated using ICD-10 cause of death classification (codes A34, O00-O95, O98-O99) for 1999-2010. United States data and HP2020 Objective were calculated using the same methods. U.S. maternal mortality data is published by the National Center for Health Statistics (NCHS) through 2007 only. U.S. rates from 2008-2010 were calculated using NCHS Final Death Data (denominator) and CDC Wonder Online Database for maternal deaths (numerator). Accessed at <http://wonder.cdc.gov> on April 17, 2013. Produced by California Department of Public Health, Center for Family Health, Maternal, Child and Adolescent Health Division, April, 2013.

NATIONAL MATERNAL HEALTH STATISTICS

National Vital Statistics Reports



Volume 63, Number 1

January 23, 2014

Primary Cesarean Delivery Rates, by State: Results From the Revised Birth Certificate, 2006–2012

by Michelle J.K. Osterman, M.H.S., and Joyce A. Martin, M.P.H., Division of Vital Statistics

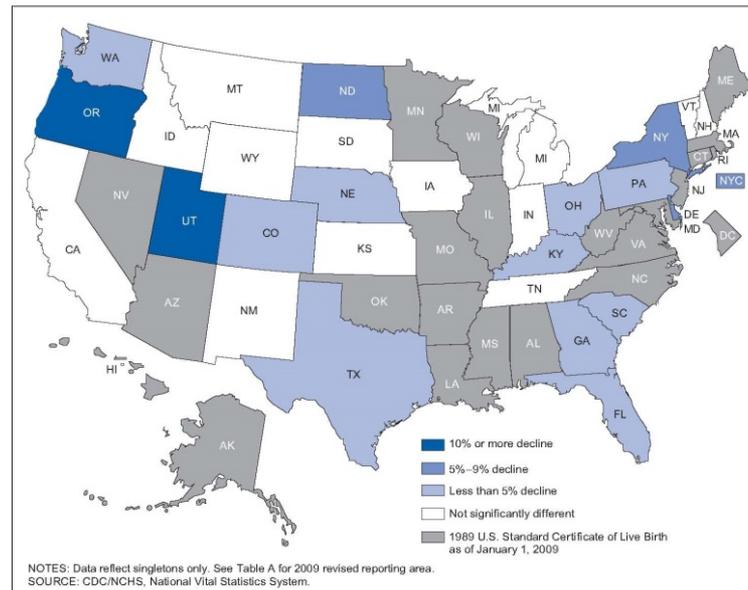


Figure 1. Percent change in primary cesarean delivery rates: 28 states and New York City (2009 revised reporting area), 2009 and 2012



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics
National Vital Statistics System



PRE-COMPILED VITAL RECORDS DATA

Data tables using the Birth Cohort File from the CDPH website:

- Births, Perinatal and Infant Deaths, and Death Rates by Birthweight
- Births, Perinatal and Infant Deaths, and Death Rates by Delivery Method
- Births, Perinatal and Infant Deaths, and Death Rates by Race/Ethnicity of Mother
- Births, Perinatal and Infant Deaths, and Death Rates by Age of Mother

<http://www.cdph.ca.gov/data/statistics/Pages/VitalStatisticsandPopulationSummaryTables.aspx>

- Live Births, Infant, Neonatal and Postneonatal Deaths and Infant Mortality Rates by Plurality and Birthweight

<http://www.cdph.ca.gov/data/statistics/Pages/InfantDeathDataTables.aspx>

PRE-COMPILED VITAL RECORDS DATA

Examples of birth outcomes tables:

- Number and Percent of Live Births with Selected Medical Characteristics by Race of Mother
- Number and Percent of Live Births with Selected Demographic Characteristics by Race of Mother
- Live Births by Birthweight, Weeks of Gestation, and Race/Ethnicity of Mother

<http://www.cdph.ca.gov/data/statistics/Pages/StatewideBirthStatisticalDataTables.aspx>

GENERAL RELEASE POLICIES

ACCESS TO CALIFORNIA VITAL STATISTICS DATA



Applications to Request Vital Statistics Data

TO ORDER DATA FILES:

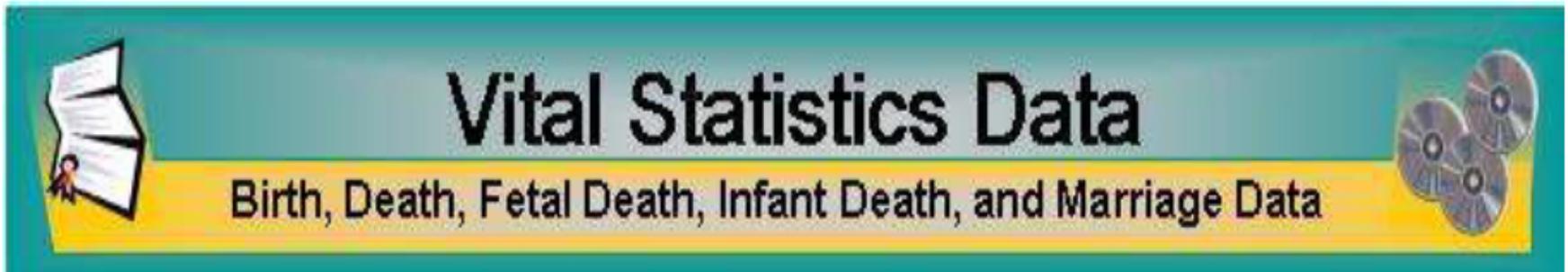
- Complete and return the appropriate application to the Health Information and Research Section. Completed, scanned copies of applications may be emailed to HIRSVitalStatistics@cdph.ca.gov.
- Please note that we require pre-payment for data files.

APPLICATIONS

- For ALL researchers, genealogists, counties requesting statewide data, and other users
- Death Data for fraud prevention and law enforcement purposes
- For local health departments requesting own "county-specific" data
- For CDPH programs only

Visit the CDPH website at <http://www.cdph.ca.gov/programs/ohir/Pages/OHIRApplications.aspx>

ACCESS TO CALIFORNIA VITAL STATISTICS DATA



Users of vital statistics files for research purposes must obtain approvals from:

- The California Health and Human Services Agency's Committee for the Protection of Human Subjects (CPHS) and
- The California Department of Public Health Vital Statistics Advisory Committee (VSAC)

in order to use birth, fetal death, or death files for research purposes.

The data files are available:

- Stored on CD-ROM with data in American Standard Code Information Interchange (ASCII) format. File documentation and record layouts are provided with the CD-ROMs.
- Via secure file transfer protocol.

ACCESS TO NATIONAL VITAL STATISTICS DATA



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives. Protecting People.™

Accessing Vital Records Data from the National Center for Health Statistics
(NCHS)

- Interactive Tables and Databases
- Data Linkage
- National Death Index
- Public-Use Data Files
- Research Data Center

Visit the NCHS website at http://www.cdc.gov/nchs/data_access.htm



CONTACT INFORMATION

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Health Information and Research Section**

THANK YOU!