Fetal and Infant Death

Fetal and infant death is most likely to occur among African-American mothers.

Fetal Death

Between 2002 and 2004 there were 210 fetal deaths in Contra Costa – an average of 70 per year. The fetal mortality rate for the county is 5.2 per 1,000 live births and fetal deaths. The county rate is similar to that of California for 2004 (5.3 per 1,000 live births and fetal deaths).

Fetal death means death prior to birth irrespective of the duration of pregnancy.[1]

- On average, there are 70 fetal deaths per year, and 51 infant deaths per year.
- Contra Costa's fetal mortality rate (5.2 per 1,000 live births and fetal deaths) does not meet the Healthy People 2010 objective (4.1 per 1,000 live births and fetal deaths)
- Contra Costa's infant mortality rate (3.9 per 1,000 live births) meets the Healthy People 2010 objective (4.5 per 1,000 live births).

Local Findings

Fetal Deaths by Race/Ethnicity

Table 1. Contra Costa County 2002–2004

	Deaths	Percent	Total Births	Rate
White	77	36.7%	15,873	4.9
Latino	64	30.5%	12,533	5.1
African American	40	19.0%	3,538	*11.3
Asian/Pacific Islander	27	12.9%	5,223	5.2
Contra Costa	210	100.0%	40,014	5.2

* Significantly higher rate than the county.

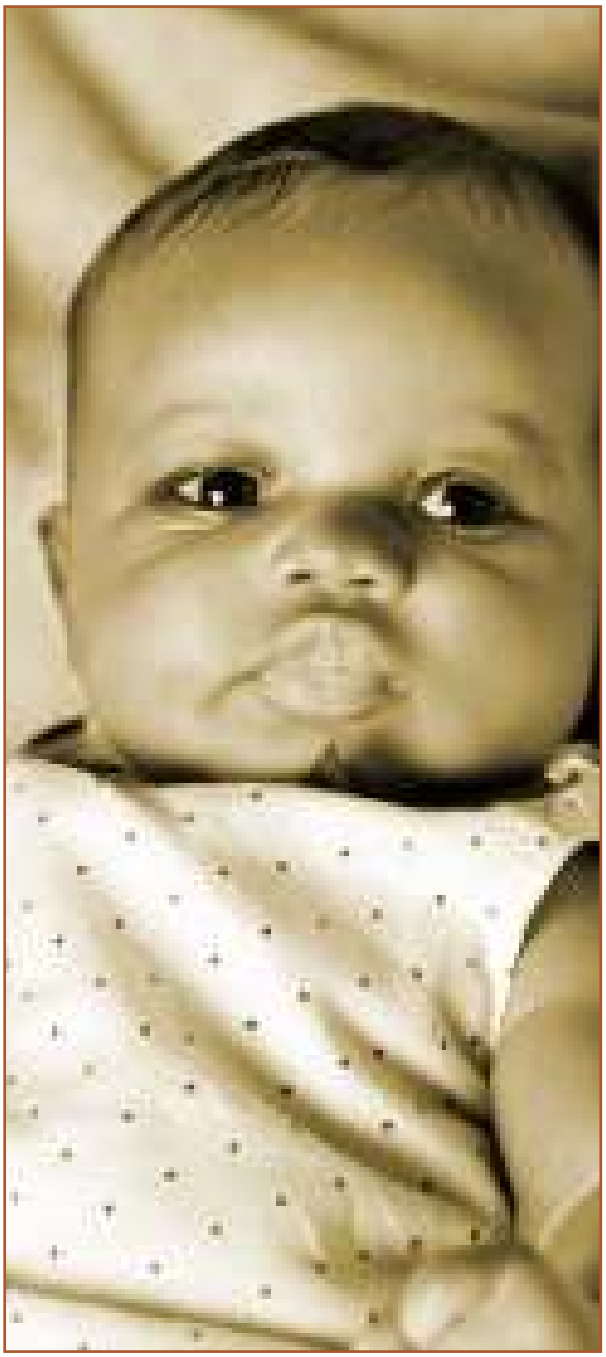
In Contra Costa, the greatest number of fetal deaths occurs among White residents (77), followed by Latinos (64), African Americans (40) and Asian/Pacific Islanders (27).

Although African Americans have a lower number of fetal deaths, African Americans have the highest rate of fetal deaths (11.3 per 1,000 live births and fetal deaths). This rate is more than twice the county rate overall (5.2 per 1,000 live births and fetal deaths) and higher than any race/ethnic group. The fetal mortality rates for Whites, Latinos, and Asian/Pacific Islanders are similar to the county rate overall.

Between 1993 and 2003, the fetal morality rate in Contra Costa fluctuated between 4.3 and 7.1 fetal deaths per 1,000 live births and fetal deaths.[1] Nationwide, the rate of fetal death has declined over time, although the high rate among African American women persists at the local, state and national level.[2]

Fetal death has been shown to be associated with maternal medical conditions such as amniotic fluid levels and blood disorders, complications of labor, and tobacco and alcohol consumption.[3]

Fetal mortality is a significant public health issue that is often overlooked and understudied. Because infant death rates only include live births, fetal mortality rates are important to provide a more complete picture of perinatal health.



Infant Death

There were 154 infant deaths in Contra Costa between 2002 and 2004 – an average of 51 per year. The infant mortality rate for the county is 3.9 per 1,000 live births.

Infant deaths are deaths to infants under one year of age.

In Contra Costa, the greatest number of infant deaths occurs among Latino residents (56), followed by White (44), African American (34) and Asian/Pacific Islander (14) residents.

Although African Americans have a lower number of infant deaths, African Americans have the highest rate of infant death (9.7 per 1,000 live births). This rate is more than twice the county rate overall (3.9 per 1,000 live births) and 3 times higher than that of Whites (2.8 per 1,000 live births). The infant mortality rates for Whites and Latinos are similar to the county rate overall.

Infant deaths are divided into to two groups – those that occur to infants under 28 days old (neonatal deaths) and those that occur to infants 28 days to up to one year old (postneonatal deaths).

Infant Deaths by Race/Ethnicity

Table 2. Contra Costa County 2002–2004

	Deaths	Percent	Live Births	Rate
Latino	56	36.4%	12,469	4.5
White	44	28.6%	15,796	2.8
African American	34	22.1%	3,498	*9.7
Asian/Pacific Islander	14	9.1%	5,196	na
Contra Costa	154	100.0%	39,804	3.9

* Significantly higher rate than the county.

Neonatal Deaths by Race/Ethnicity

Table 3. Contra Costa County 2002–2004

	Deaths	Percent	Live Births	Rate
Latino	42	44.2%	12,469	3.4
White	30	31.6%	15,796	1.9
African American	10	10.5%	3,498	na
Asian/Pacific Islander	8	8.4%	5,196	na
Contra Costa	95	100.0%	39,804	2.4

Of the 154 infant deaths that occurred in Contra Costa between 2002 and 2004, 95 (61.7%) occurred in the first 27 days of life (neonatal).

In Contra Costa, 59 infant deaths (38.3%) occurred between 28 days and one year of life (postneonatal). African Americans

Postneonatal Deaths by Race/Ethnicity

Table 4. Contra Costa County 2002–2004

	Deaths	Percent	Live Births	Rate
African American	24	40.7%	3,498	*6.9
White	14	23.7%	15,796	na
Latino	14	23.7%	12,469	na
Asian/Pacific Islander	6	10.2%	5,196	na
Contra Costa	59	100.0%	39,804	1.5

* Significantly higher than the county rate

have a higher postneonatal death rate (6.9 per 1,000 live births) compared to the county overall (1.5 per 1,000 live births).

In Contra Costa, over 75% of the infant deaths fall into 3 main categories of cause of infant death:

- Conditions originating in perinatal period
- Congenital malformations, deformations and chromosomal abnormalities
- Sudden Infant Death Syndrome (SIDS)[1]

Infant mortality (death) is widely regarded as a measure of a community's social and economic well-being, as well as its health. It reflects a range of factors such as medical issues, the ability of health care systems to respond to the needs of women and infants, environmental factors, and social issues such as poverty, education and culture. Furthermore, infant mortality indicates something about women's lives – their lifestyle and personal habits, their relationships and the stress they experience.

Fetal and Infant Deaths

Text

1. Family, Maternal and Child Health Programs (2005). *Contra Costa Fetal Infant Mortality Review Program: Findings and Accomplishments 1998-2004.* Available online at http://www.cchealth.org/services/infant_mortality/pdf/fimr_report_2005.pdf

2. Centers for Disease Control and Prevention. (2004). Racial/Ethnic Trends in Fetal Mortality – United States, 1990-2000. Morbidity and Mortality Weekly Report, June 25,2004: 53(24), p.529-532. Available online at http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5324a4.htm

3. Centers for Disease Control and Prevention, Center for Health Statistics. (1996). Medical and Life-style Risk Factors Affecting Fetal Mortality, 1989-90. Vital and Health Statistics, 20(31). Available online at http://www.cdc.gov/nchs/products/pubs/pubd/series/sr20/pre-1/sr20_31.htm

Tables

Tables 1-4: Birth data from the California Department of Health Services (CDHS), Birth Statistical Master Files, 2002-2004. Any analyses, interpretations or conclusions of the data have been reached by CHAPE and are not from the CDHS. Data for the following race/ethnicity groups was excluded due to small numbers: American Indian/Alaska Native, Native Hawaiians, Two or More Races, and Other.

Table 1: Fetal death data from the California Department of Health Services (CDHS), Fetal Death Statistical Master Files, 2002-2004. This table includes fetal deaths to women who are residents of Contra Costa and average crude fetal mortality rates for 2002 through 2004. Rates were not calculated for groups with less than 20 deaths due to unstable numbers.

Fetal Mortality rate = fetal deaths occurring at 20 weeks gestation or more divided by total births plus fetal deaths multiplied by 1,000. Fetal mortality data does not include pregnancies that were voluntarily terminated.

Table 2-4: Infant death data (including neonatal and postneonatal) from the California Department of Health Services (CDHS), Death Statistical Master Files, 2002-2004. These tables include infant, neonatal and postneonatal deaths to women who are residents of Contra Costa and average crude infant mortality, neonatal mortality and postneonatal mortality rates for 2002 through 2004. Rates were not calculated for groups with less than 20 cases due to unstable numbers.

Infant Mortality rate = deaths of infants under 1 year of age divided by live births multiplied by 1,000.

Neonatal Mortality rate = deaths of infants less than 28 days old divided by live births multiplied by 1,000.

Postneonatal Mortality rate = deaths of infants from 28 days to up to 1 year old divided by live births multiplied by 1,000.

Population data from:

California Department of Finance (April 2006). Estimated Race/Ethnic Population with Age and Sex Detail 2000-2004. Sacramento, CA.

California Department of Finance (May 2006). E-4 Population Estimates for Cities, Counties and the State 2001-2006, with DRU Benchmark. Sacramento, CA. Available online at: http://www.dof.ca.gov/HTML/DEMOGRAP/Druhpar.htm.