



***Maternal, Child & Adolescent
Health in Contra Costa County
1991-1999***



**Family, Maternal & Child Health Programs
Contra Costa Health Services
January 2003**

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From the Director



The Family, Maternal and Child Health (FMCH) Programs of Contra Costa Health Services are dedicated to promoting the health and well-being of mothers, children, youth and families in the diverse communities of our county. We accomplish this mission through partnerships with families, community members, county programs and community-based organizations. Our work includes collecting and analyzing data to identify high priority needs; developing, implementing and evaluating programs designed to improve health outcomes; and providing training and technical assistance to groups throughout the county on perinatal health issues.

Maternal, Child & Adolescent Health in Contra Costa County: 1991-1999 presents key indicators of family, maternal and child health in our county, and describes trends in these indicators over the past 10 years. In particular, we examine low birth weight births, time of entry into prenatal care, infant mortality, and births to teens. We also discuss significant demographic changes in birth patterns and birth outcomes, information that is important in identifying emerging issues and planning and implementing improvements in prevention and service-delivery efforts. Finally, we highlight the local efforts of FMCH programs and some of our community partners.

Through the work of dedicated staff and engaged and energetic community partners, the FMCH Programs have seen important changes in maternal, child, adolescent, and family health in our county. However, notable disparities in health outcomes persist, particularly among our communities of color and among our low-income populations. We are committed to eliminating these disparities by working closely with our partners.

This report provides a snapshot of the health of families, women, children, and adolescents in Contra Costa County. We hope you will use it to plan and implement community-oriented programs, and to design and institute policies that contribute to better health for all.

Cheri Pies, MSW, DrPH

Director, Family, Maternal & Child Health Programs

Executive Summary



Executive Summary



During the 1990s, Contra Costa County saw many improvements in maternal, child & adolescent health. However, significant disparities between racial/ethnic groups and income levels persist. As the composition of the county's population continues to change, a special focus on these disparities is essential. Following is a summary of key facts from this report:

Population Trends

- Contra Costa County is one of the fastest growing counties in California.
- The diversity of Contra Costa is increasing dramatically, in general and in particular among youth aged 10-19.
- East County is the fastest growing region of Contra Costa.
- Births to Hispanic women are rising as births to White women are falling.

Prenatal Care

- The percent of women in Contra Costa receiving prenatal care in the first trimester of pregnancy increased between 1991 and 1999.
- African-American and Hispanic women were less likely than White and Asian/Pacific Islander women to receive early prenatal care.

Low Birth Weight (weighing less than 2500 grams or 5.5 pounds)

- Rates of low birth weight births in Contra Costa remained constant between 1991 and 1999, with some variation by race/ethnicity.
- African-American women are at much higher risk than White women for delivering low birth weight infants.

Infant Mortality

- Between 1991 and 1999, infant mortality rates in Contra Costa declined steadily.
- Infant mortality rates varied greatly by race/ethnicity and income status.

Births to Teens

- The rate of births to teens aged 15-17 in Contra Costa fell significantly between 1991 and 1999.
- The highest teen birth rates from 1991 to 1999 were among Hispanic and African-American teens.

Facts at a Glance



Facts at a Glance



	1990	2000
Population of Contra Costa County ^{1,2}	803,732	948,816

	1991 Contra Costa County	1999 Contra Costa County	1999 State of California	Healthy People 2000 Goal ⁸
Number of Births ³	13,397	12,538	518,073	NA
Percent Early Entry into Prenatal Care ³	82.5	89.0	82.2	90.0
Percent Late or No Entry into Prenatal Care ³	4.4	2.4	3.1	NA
Percent Low Birth Weight ³	6.2	6.4	6.1	5.0
Percent Very Low Birth Weight ³	0.9	1.0	1.2	1.0
Infant Mortality Rate (per 1,000 births) ⁴	6.1	5.3	5.4	7.0
Rate of Births to Teens (per 1,000 girls age 15-17) ^{3*}	29.8	16.6	30.1	NA

*The Healthy People 2000 Objective pertains to **pregnancies** per 1,000 females in the age group, whereas the data presented here for Contra Costa and California are for **live births** per 1,000 females in the age group.

Population Trends

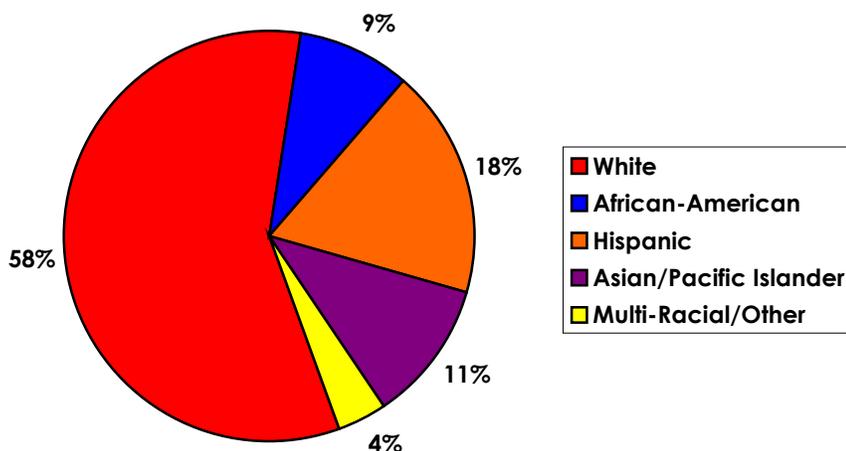


Population Trends



Contra Costa County, the ninth largest by population of all California counties², is located approximately 15 miles northeast of San Francisco, with San Pablo Bay as its western boundary and the Carquinez Strait as its northern one. The county covers close to 4,000 square miles and encompasses 460,980 acres of land. Contra Costa's population has grown dramatically since 1990, and it is growing faster than the state as a whole.^{1,2} According to the 2000 Census, Contra Costa is home to 948,816 people, an increase of 18% since 1990 (compared to a population increase of 13% for the State of California).²

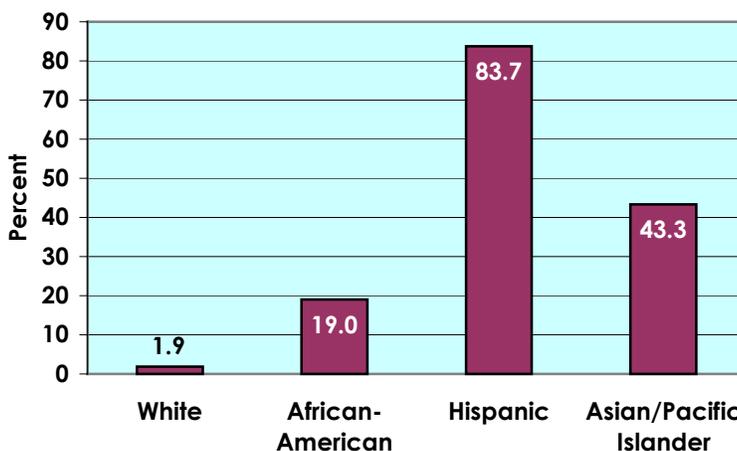
Contra Costa Population, By Race/Ethnicity, 2000²



During the past decade, the population of Contra Costa became more ethnically diverse. People of color now make up 42% of the population, in comparison to 30% in 1990.^{1,2}

The largest increase in Contra Costa's population has been among Hispanics.^{1,2} This group increased by 76,494 people between 1990 and 2000, representing a dramatic rise of almost 84%. Hispanics now account for 18% of the county's total population.

Percent Increase in Contra Costa Population, By Race/Ethnicity, 1990-2000^{1,2}



Among the three regions of Contra Costa—West, Central, and East—East County has had the greatest increase in population.^{1,2} The population of East County has increased by 55,453 people, a 33.6% increase since 1990.

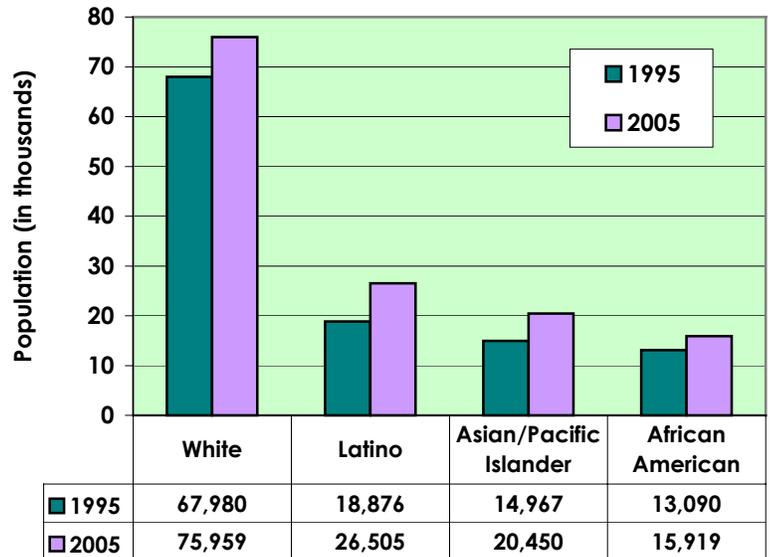
Population Trends



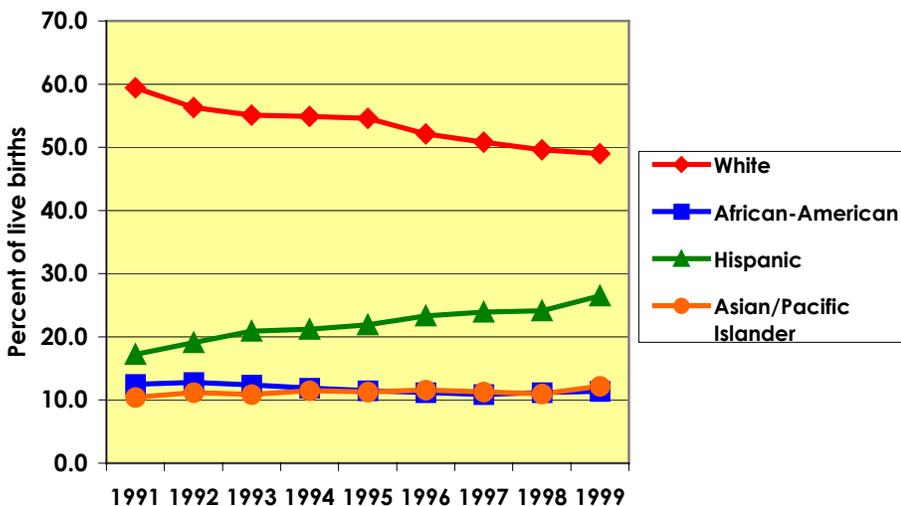
It is estimated that by 2005, the number of youth aged 10-19 in Contra Costa County will total 139,403, compared to 115,536 in 1995, representing a 21% increase in the adolescent population from 1995 to 2005.⁵

In 2000, White youth made up almost half of the county's youth population, Latino youth 22%, Asian/Pacific Islander youth 11%, African-American youth 11%, and other youth less than 7%.⁶ However, these figures are changing. It is anticipated that between 1995 and 2005 the largest increase in population will occur among Latino and Asian American/Pacific Islander teens, with increases of 40% and 37%, respectively.⁵

Contra Costa Youth Population, Age 10-19, By Race/Ethnicity, 1995-2005⁵



Trends in Distribution of Births in Contra Costa, By Race/Ethnicity, 1991-2000^{3*}



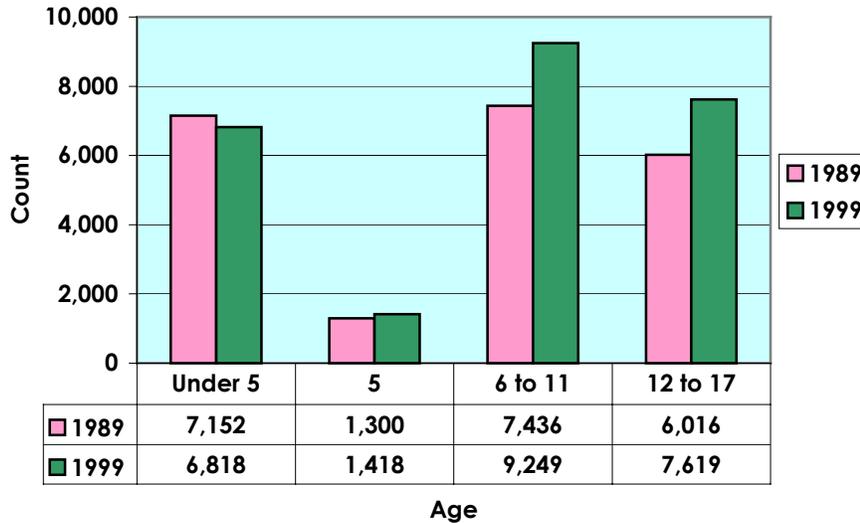
* Starting in 2000, birth certificates changed how race/ethnicity is defined. As a result, 2000 data are not included with 1990s data in this report.

In Contra Costa, the majority of births are to non-White women.³ The proportion of births to Hispanic and Asian/Pacific Islander women is rising.³ Hispanic births rose from 17.2% of all births in 1991 to 26.5% in 2000. Asian/Pacific Islander births made up 10.4% of all births in 1991 and 12.2% of all births in 2000. If upward trends for Hispanic women and downward trends for White women continue, births to Hispanics will soon constitute the majority of all births in Contra Costa, as they will in California.

Population Trends



**Number of Children Below Poverty Level,
By Age, 1989 vs. 1999^{1,2}**



As the number of children in Contra Costa grows, so does the number of children living below the Federal Poverty Level (FPL) (an income of \$18,100 per year for a family of four⁷). For example, the number of children aged 6-11 living in poverty increased by 24% between 1989 and 1999. The number of children aged 12-17 living in poverty increased by almost 27%. In addition, the number of adults aged 18-64 living in poverty increased by 28% between 1989 and 1999, from 31,475 to 40,247.^{1,2}

The FPL does not take into account the costs of expenditures such as housing and child care, which are especially high in California. Therefore, 200% of the FPL (an income of \$36,200 per year for a family of four) is often used as a measure of low-income status. Between 1990 and 2000, the proportion of people in Contra Costa living at or below 200% of the FPL increased from 17.2% to 18.5%.^{1,2}

Prenatal Care

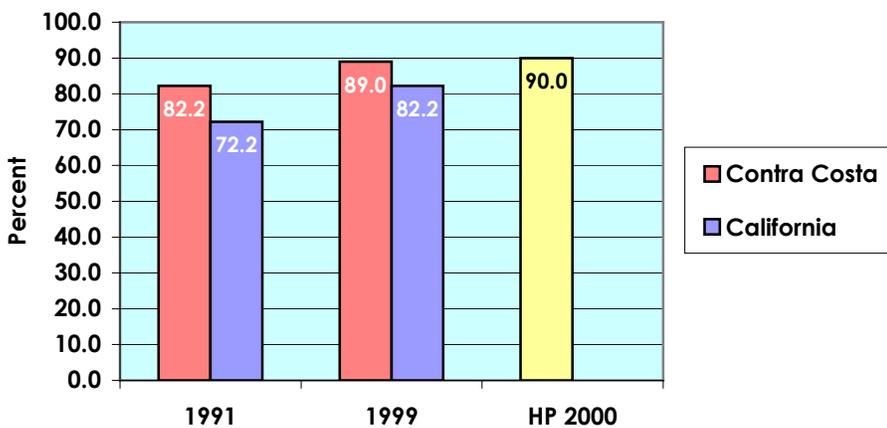


Prenatal Care



Comprehensive prenatal care is essential to healthy birth outcomes, and the earlier in their pregnancies that women receive prenatal care, the more effective that care is likely to be. Factors associated with not obtaining early prenatal care include low income, young maternal age/teen pregnancy, low maternal education level, race/ethnicity (African-American, Hispanic, American Indian/Alaska Native), high number of previous births, maternal substance abuse, lack of health insurance, and lack of obstetric providers.

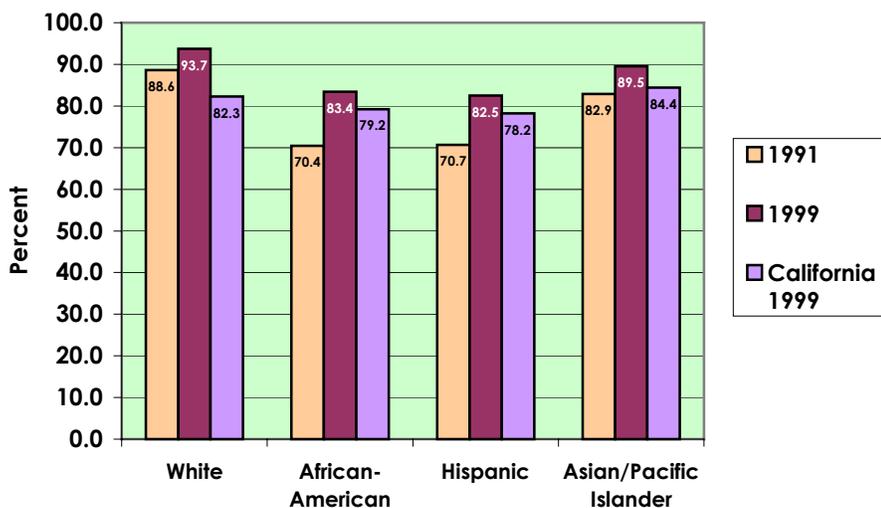
Percent Receipt of Early Prenatal Care, 1991 vs. 1999³



In 1999, 89% of pregnant women in Contra Costa entered prenatal care in the first trimester,³ almost meeting the Healthy People 2000 Objective of 90%.⁸

In addition, the number of Contra Costa women obtaining late or no prenatal care decreased by 48% between 1991 and 1999, from 4.4% to 2.4%.³

Percent Receipt of Early Prenatal Care, By Race/Ethnicity, 1991 vs. 1999³



Between 1991 and 1999, White and Asian/Pacific Islander women continued to be more likely than African-American and Hispanic women to receive early prenatal care.³

Between 1991 and 1999, the percent receipt of early prenatal care improved among low-income women. In 1991, 56.9% of low-income women entered prenatal care in the first trimester, compared to 73.3% in 1999.⁹

Prenatal Care



Local Efforts

In 1999, Contra Costa County was the top-ranked county in the state for women entering prenatal care during the first three months of pregnancy.³ Contra Costa is home to a variety of programs that offer different combinations of supportive prenatal services, including comprehensive prenatal risk assessment services, supplemental food and nutrition information, assistance with locating and gaining access to prenatal care, overall case coordination, and countywide outreach and information to low-income, underserved women of childbearing age to promote early entry into prenatal care.

In Contra Costa County, prenatal services are provided to low-income and at-risk women through the following FMCH programs: Comprehensive Perinatal Services Program, Prenatal Care Guidance, Black Infant Health, Perinatal Outreach and Education, and the Women, Infants and Children (WIC) Program. In addition, services are provided through Healthy Start, the Contra Costa Health Plan's Maternal Care Liaison Program, and Contra Costa Public Health Division's Public Health Nursing.

In particular, FMCH's Prenatal Care Guidance (PCG) Program, a bilingual (English/Spanish) home visiting program, helps pregnant women obtain early and continued prenatal care. PCG serves low-income, Medi-Cal-eligible pregnant women and their babies (up to 15-months of age). All services are free and provided regardless of immigration status. PCG provides:

- 1) Assistance in applying for Medi-Cal and related programs to help pay for:
 - Pregnancy care, including doctor and hospital bills;
 - Special tests as needed; and
 - The new baby's medical care.
- 2) Help finding a doctor or health center that provides:
 - Complete prenatal care;
 - Delivery of the baby;
 - Newborn care; and
 - Postpartum follow-up.
- 3) Visits to the home to:
 - Talk with the mother-to-be regarding her plans, concerns, and needs;
 - Make referrals to WIC or other services the family may need; and
 - Provide education pamphlets and videos about pregnancy, nutrition, labor and delivery, breastfeeding, infant care, and parenting.

Low Birth Weight

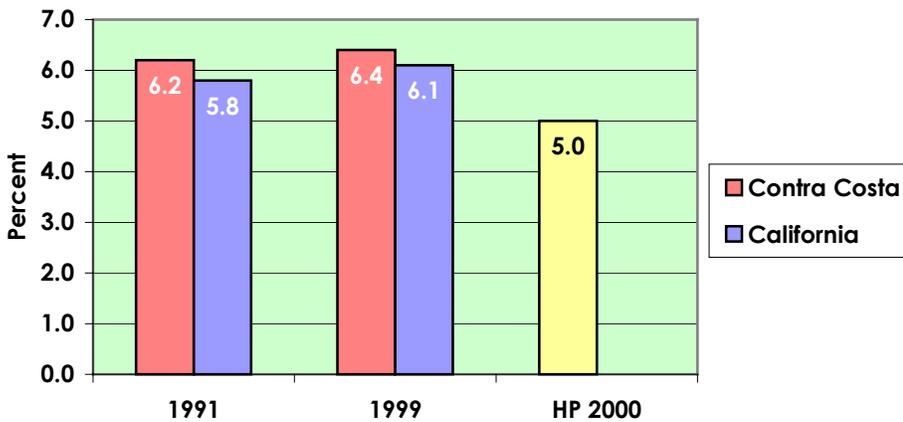


Low Birth Weight



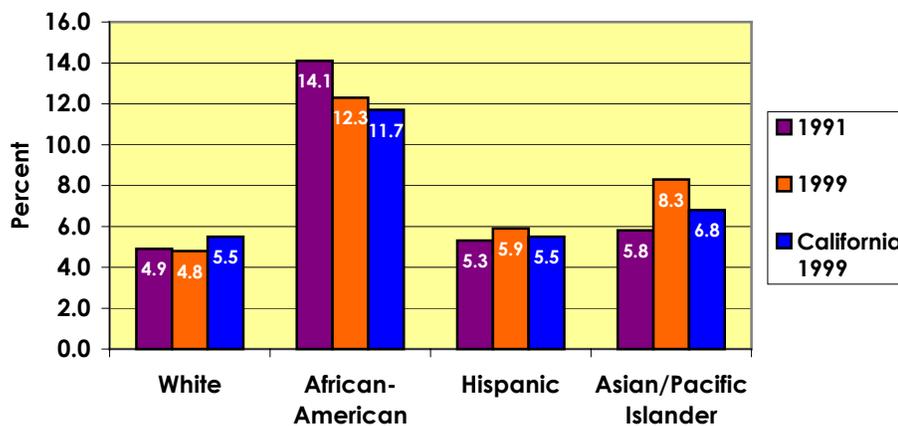
The most significant risk factor for neonatal death (before 28 days of age) is low birth weight (weighing less than 2500 grams). Infants born with very low birth weights (weighing less than 1,500 grams) are most likely to die before their first birthdays. In comparison to normal weight infants, low birth weight infants who survive their first year are more likely to face long-term neurological and developmental disabilities.^{10,11} Prenatal smoking is directly tied to health problems for babies: it doubles the risk of low birth weight.¹² Twenty to thirty percent of all low birth weight births in the United States can be attributed to maternal cigarette smoking.¹³ Smoking causes intrauterine growth retardation and resulting low birth weight. The primary contributor to very low birth weight is preterm delivery, which may be associated with a variety of factors, including the use of illicit drugs during pregnancy.

Percent Low Birth Weight Births, 1991 vs. 1999³



The overall rate of low birth weight births in Contra Costa showed no significant improvement between 1991 and 1999.³ However, low birth weight rates did change for specific racial/ethnic groups. For example, between 1991 and 1999, the rate of low birth weight births decreased by 15% for African-American women and increased by 11% for Hispanic women.³

Percent Low Birth Weight Births, By Race/Ethnicity, 1991 vs. 1999³



Despite the improvement for African-American women, they were still almost three times more likely to deliver infants with low birth weight than White women.³

Low-income women had higher percentages of low birth weight births than Contra Costa overall (8.9% vs. 6.4% in 1999).⁹

Low Birth Weight



Local Efforts

The Comprehensive Perinatal Services Program (CPSP) is a Medi-Cal program that provides comprehensive services for eligible low-income pregnant and parenting women. Basic to the CPSP model is the belief that pregnancy and birth outcomes improve when routine obstetric care (prenatal, delivery, and postpartum care) is integrated with specific nutrition, health education, and psychosocial services. One of the primary goals of CPSP is to decrease the incidence of low birth weight.

In the 1990s, pregnant women in Contra Costa using drugs during pregnancy received treatment from the following county and community-based organizations through funding from the Community Substance Abuse Services (CSAS) System of Care:

- Born Free
- Ujima Family Recovery Services
- CSAS Youth and Family Treatment Services
- CSAS Access Unit (Resource and Referral)

In addition, the FMCH Perinatal Outreach and Education Program conducted special educational events for low-income women and at-risk women in East and West County to reduce the use of tobacco and other drugs during pregnancy.

In July 2002, First Five Contra Costa (the Contra Costa Children and Families Commission) funded FMCH to implement a project to coordinate existing tobacco cessation efforts and develop a countywide educational campaign to reduce environmental tobacco smoke exposure among pregnant women and children 0-5 years of age. We will aim our efforts at reaching providers and agencies that work directly with children in an attempt to reach parents who smoke.

On January 30, 2003, the March of Dimes will launch a five-year national prematurity research, awareness, and education campaign to help families have healthier babies. Health professionals in Contra Costa will collaborate with the Northern California Chapter of the March of Dimes on local Prematurity Campaign efforts.

Infant Mortality

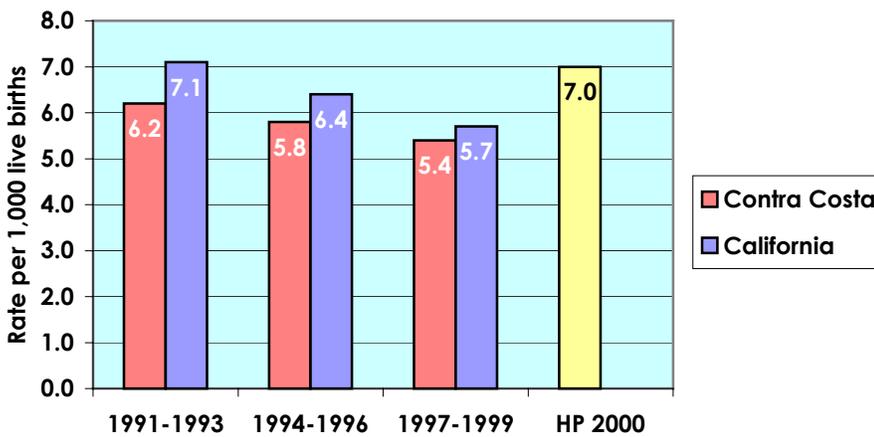


Infant Mortality



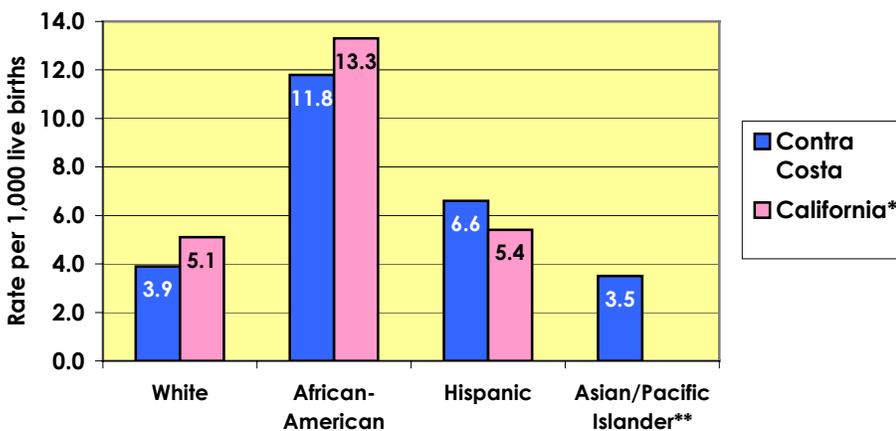
Worldwide, infant mortality is utilized as an indicator of the health status and well-being of a society. In 1998, the United States' infant mortality rate ranked 28th among industrialized nations.¹⁴ The leading causes of infant mortality in California and the United States are (in order of rate per 1,000 live births): birth defects, prematurity and low birth weight, Sudden Infant Death Syndrome (SIDS), Respiratory Distress Syndrome (RDS), and maternal complications of pregnancy (e.g. gestational diabetes, preeclampsia).¹⁵ Maternal age is also associated with infant mortality. Infants born to mothers aged 16 and younger and mothers aged 44 and older are more likely than infants born to mothers aged 17-43 to die in the first year of life.¹⁶

Infant Mortality Rate, Three-Year Averages, 1991-1999^{4,8,17}



The infant mortality rate in Contra Costa fell by 15% between 1991-1993 and 1997-1999,^{4,17} meeting the Healthy People 2000 Objective of reducing the infant mortality rate to no more than 7 per 1,000 live births.⁸ Contra Costa showed lower rates than California overall throughout this time period.^{4,17}

Infant Mortality Rate, Three-Year Averages, By Race/Ethnicity, 1997-1999⁴



Though the infant mortality rate for White women declined dramatically between 1991 and 1999, it remained high for African-American women, who were consistently 2-3 times more likely than White women to have had infants who died in the first year of life.⁴

Low-income women in Contra Costa experienced double the infant mortality rate of non-low-income women (7.9/1,000 live births vs. 4.0/1,000 live births).¹⁸

*State data are averages of rates and do not utilize aggregated numerators and denominators.
 **State data are not available in this format for Asians/Pacific Islanders.

Infant Mortality



Local Efforts

Several programs in Contra Costa are addressing infant mortality at various levels. The Black Infant Health (BIH) Program is a case management program for pregnant and parenting African-American women. BIH is implemented through a subcontract with The Perinatal Council, a community-based organization. BIH is designed to modify individual and environmental risk factors associated with infant morbidity and mortality as well as to increase community awareness and mobilization to respond to problems of perinatal health.

BIH program services are provided by Family Health Advocates and include: assistance in applying for Medi-Cal, TANF, WIC and other services; development of individualized plans for each client to receive perinatal and postpartum care, pediatric services for their children, and access to mental health, housing, and employment services; assistance to alleviate transportation barriers in attending prenatal, WIC, and pediatric appointments; support groups and health education; client tracking and follow-up to assure timely prenatal care; and networking and public education to accomplish individual and community change.

The Fetal Infant Mortality Review (FIMR) Program is a community-based, action-oriented program designed to enhance the health and well-being of women, infants, and families through the review of fetal and infant deaths at the community level. The FIMR Program process includes data collection, case review, and community collaboration. These combined components support efforts to improve maternal and child health in Contra Costa County. A Case Review Team examines selected fetal and infant death cases, identifies factors associated with these deaths, and determines if these factors represent system problems that require change. Recommendations from the Case Review Team are presented to community groups and organizations that work with FIMR in order to coordinate and implement interventions that lead to positive change.

The mission of the Contra Costa SIDS Program is to help alleviate the tragedy surrounding SIDS by providing high quality, caring services to families and caregivers who have been affected by SIDS. The program works not only to assist families affected by SIDS, but also to expand awareness about SIDS and promote risk reduction measures through the Back to Sleep Campaign. This nationwide campaign promotes placing babies to sleep on their backs, which reduces the risk of SIDS. The SIDS Program's Public Health Nurses provide bereavement support, information, referrals, resources and follow-up services to assist families and caregivers. The SIDS program staff also participates in community outreach activities and collaborates with prenatal care and pediatric providers to expand awareness about SIDS and promote risk reduction measures.

Births to Teens

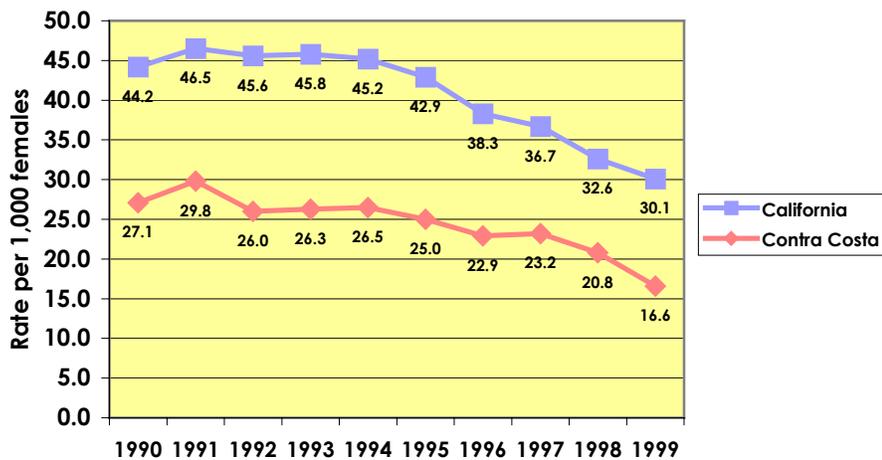


Births to Teens



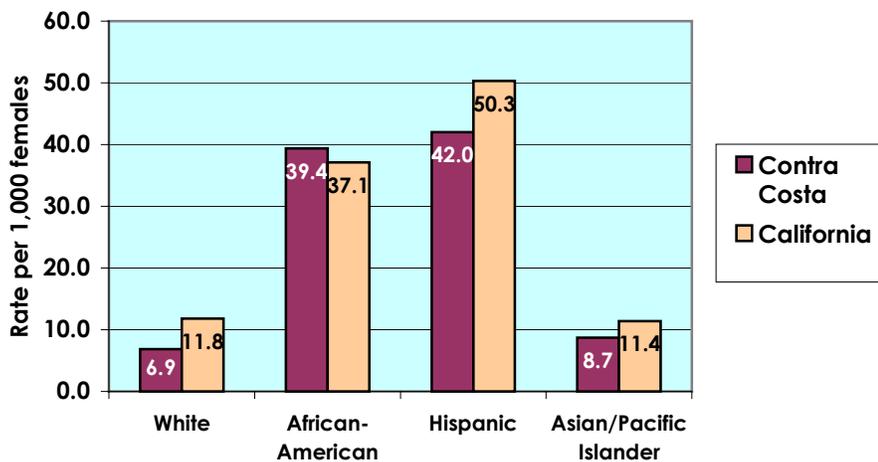
Teen births have been associated with a variety of factors, including low income, low maternal education level, race/ethnicity (African-American, Hispanic), lack of effective family planning practices, lack of education or counseling regarding family planning, previous teen pregnancy, and initiation of sexual activity at a young age. Infants born to teens are more likely to be born low birth weight and suffer from related health problems.¹⁹⁻²¹ There are also serious health risks for teen mothers themselves; they have a higher death rate than mothers aged 20-24.²² In addition, teen mothers are less likely than other teens to complete high school, limiting their future opportunities.²³

Rate of Births to Teens Aged 15-17, 1990-1999^{3,17}



The rate of births to teens in Contra Costa County declined during the 1990s, mirroring statewide and national trends.^{3,17,24} The greatest decline was among African-American teens—a 4.5% decrease in the number of births between 1991 and 1999.³

Rate of Births to Teens Aged 15-17, By Race/Ethnicity, 1999^{1,3}



Contra Costa's teen birth rate was consistently lower than that of California.^{5,17} Because these rates address **births** to teens, they cannot be directly compared to the Healthy People 2000 Objective of reducing **pregnancies** among teenage girls.⁸

In 1999, Hispanic teens had a birth rate six times that of White teens, the highest of any racial/ethnic group in Contra Costa.^{1,3}

Births to Teens



Local Efforts

In 1998, as part of the FMCH Community Health Assessment, community residents and health professionals identified teen pregnancy as a key perinatal health issue. Since then, the FMCH Community Coalition, a community advisory committee to the FMCH Program, has been implementing various projects in Contra Costa County around teen pregnancy prevention. During the past year, the focus of the Coalition has expanded to include more general adolescent health issues as members have recognized that teen pregnancy cannot be addressed in isolation. In August 2002, the FMCH Community Coalition convened a Planning Retreat to discuss adolescent health issues. The group chose two main goals for its 2002-2003 Work Plan:

- 1) Increase youth participation in local governance and public policy.
- 2) Work with schools and after-school programs to promote stable families that can support teens.

Another FMCH program, the TeenAge Program (TAP) addresses the physical, social, and emotional concerns of Contra Costa County youth. For 20 years, TAP services have been empowering teens to take responsibility for their own well-being. TAP works to prevent teen pregnancy through the following strategies:

- Education: TAP conducts teen-specific health education activities at Contra Costa high schools, juvenile detention facilities, and community organizations.
- Teen Clinics: TAP manages teen clinics in Concord, Richmond, and Pittsburg (opening January 2003) and a school-based health center at Richmond High School.
- Condom Availability Program: In conjunction with the West Contra Costa Unified School District, TAP's Condom Availability Program provides education and free condoms to students enrolled in West Contra Costa high schools.
- Youth Development: TAP youth development projects foster youth leaders, cultivate activism, and create opportunities for community involvement. Participating youth build their skills and economic capacity through projects that make a difference in their communities.
- Mentoring Projects: TAP mentoring projects build relationships between students and health professionals. Projects provide opportunities for students to explore health career options, job-shadow health professionals, and gain valuable work experience.
- Junior Health Facilitator Program: Since 1996, the Contra Costa County Office of Education has funded the Junior Health Facilitator Program, which aims to prevent teen pregnancy by employing young people and teaching them vital life skills. The program recruits and trains high school students to be peer educators in middle and high schools and in the community.

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Definitions



Percent Early (First Trimester) Entry into Prenatal Care

The percent of live born infants whose mothers received prenatal care in the first trimester of pregnancy

Percent Late Entry into Prenatal Care or No Prenatal Care

The percent of live born infants whose mothers received prenatal care beginning in the third trimester and/or did not receive any prenatal care

Percent Low Birth Weight

The percent of live born infants weighing less than 2,500 grams (5.5 pounds) at birth

Percent Very Low Birth Weight

The percent of live born infants weighing less than 1,500 grams (3.3 pounds) at birth

Infant Mortality Rate

The number of infant deaths per 1,000 live births occurring at less than 365 days of age

Neonatal Mortality Rate

The number of infant deaths per 1,000 live births occurring at less than 28 days of age

Post-neonatal Mortality Rate

The number of infant deaths per 1,000 live births occurring between 28 and 364 days of age

Rate of Births to Teens

The number of live births per 1,000 adolescent females, by age at delivery

Low-income

For birth data: Having prenatal care that is paid for by Medi-Cal (excluding Medi-Cal managed care due to coding issues)

For infant death data: Occurring in zip codes with a high percentage of low income residents

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