

Sonoma County Maternal Child Adolescent Health Profile



Prepared by
Jenny Mercado, MPH

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The Maternal Child and Adolescent Health Profile examines the status of mothers, children and adolescents in Sonoma County on a select group of health indicators. This report is meant as a supplement to the larger Sonoma County Health Profiles published every five years. The goal of this supplement is to provide more timely information on the target population for use in priority setting and program planning in the community.

Summary of Findings

Areas where Sonoma County is doing well:

- Sonoma County has one of the highest breastfeeding initiation rates in California and has met the Healthy People 2010 objective for breastfeeding initiation.
- The infant mortality rate decreased significantly from 1998-2000 to 2002-2004 and has met the Health People 2010 objective of less than 4.5 infant deaths per 1,000 live births.
- From 1998-2000 to 2003-2005 the rate of childhood injury hospitalization decreased significantly.
- The teen birth rate in Sonoma County decreased significantly from 1998-2000 to 2003-2005, following a state and national trend.

Areas where Sonoma County needs improvement:

- From 2002 to 2006 Sonoma County saw a significant decrease in the proportion of children entering kindergarten with all of the required immunizations. Sonoma County rates have been consistently lower than California rates, neither of which met the Healthy People 2010 objective.
- The hospitalization rate among Sonoma County children 0-4 years increased significantly from 1998-2000 to 2003-2002.
- In 2005 the Sonoma County rate of iron deficiency anemia among children less than 5 years old was significantly higher than the California rate. Only 4 other counties in California had rates higher than Sonoma County.
- From 2004 to 2006 the proportion of Sonoma County students who reported smoking cigarettes in the past month increased slightly for both 9th and 11th graders. In 2006 Sonoma County students had higher rates of 9th and 11th graders who reported smoking in the past month than California.
- The proportion of Sonoma County students who reported using alcohol in the past month increased slightly from 2004 to 2006 for both 9th and 11th graders. Rates of alcohol use continue to be higher for Sonoma County than California in both 9th and 11th graders.
- From 1999-2001 to 2002-2004 the adolescent (ages 15-19) death rate increased significantly.

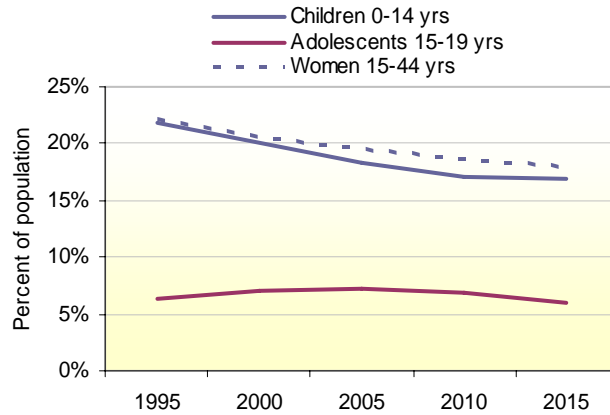
Indicator	Year	Healthy People 2010	Sonoma County	California
Percent of births to women who received prenatal care in first trimester	2003-2005	90%	86.8%	85.8%
Fetal mortality rate per 1,000 live births and fetal deaths	2003-2005	4.1	5.4	5.4
Percent of mothers who initiated breastfeeding at hospital discharge	2004	75%	94%	83.9%
Percent of births that were very low birth weight (<1500 g)	2003-2005	0.9%	0.9%	1.2%
Percent of births that were low birth weight (<2500 g)	2003-2005	5%	5.7%	6.7%
Percent of births that were preterm (<37 weeks gestation)	2003-2005	7.6%	7.2%	10.9%
Infant mortality rate per 1,000 live births	2002-2004	4.5	3.9	5.3
Neonatal mortality rate per 1,000 live births (≤28 days)	2002-2004	2.9	2.6	3.5
Postneonatal mortality rate per 1,000 live births (29 days to 1 year)	2002-2004	1.2	1.3	1.7
Percent of children age 2-4 who are obese (≥95th percentile)	2005	5%	16%	17.4%
Percent of children age 5-14 who are obese (≥95th percentile)	2005	5%	23%	23.5%
Substantiated child (age 0-17) abuse rate per 1,000 children	2005	10.3	8.7	11.4
Unintentional injury hospitalizations (age 0-14) per 10,000	2003-2005	N/A	21.0	22.6
Child (age 1-4) death rate per 100,000	2002-2004	18.6	25.6	26.7
Child (age 5-9) death rate per 100,000	2002-2004	12.3	9.1	13.3
Child (age 10-14) death rate per 100,000	2002-2004	16.8	17.8	16.0
Percent of kindergarten children who were up-to-date on routine immunizations by age two	2005/2006	90%	76%	77.7%
Percent of children entering kindergarten with all required immunizations	2006	95%	89.1%	92.7%

Indicator	Year	Healthy People 2010	Sonoma County	California
Percent of children ages 1-2 with iron deficiency anemia	2005	5%	22.3%	15.2%
Percent of children ages 3-4 with iron deficiency anemia	2005	1%	13.7%	12.8%
Hospitalization rate (ages 0-4 yrs) for asthma as primary diagnosis per 10,000	2003-2005	25	20.4	29.3
Teen birth rate (ages 15-19) per 1,000 females 15-19 yrs	2003-2005	N/A	28.6	38.0
Percent of teens (ages 15-19) who are obese (>95th percentile)	2005	5%	18.5%	19.8%
Percent of teens who smoked at least 1 cigarette in past month	2006	16%		
9th grade			11%	9%
11th grade			19%	14%
Percent of teens who used alcohol in the past month	2006	19%		
9th grade			33%	28%
11th grade			50%	37%
Percent of teens who reported binge drinking (5+ drinks in a row) in the past month	2006	2%		
9th grade			19%	13%
11th grade			34%	21%
Unintentional injury hospitalization rate (15-19 yrs) per 10,000	2003-2005	N/A	41.1	34.3
Adolescent (15-19 yrs) death rate per 100,000	2002-2004	39.8	50.5	57.2
Homicide death rate (15-19 yrs) per 100,000	2002-2004	3.0	9.9	14.4
Hospitalization rate (15-19 yrs) due to assault injuries per 10,000	2003-2005	N/A	4.9	8.8
Suicide death rate (15-19 yrs) per 100,000	2002-2004	5.0	Rate unstable due to small numbers	5.1
Hospitalization rate (15-19 yrs) due to self-inflicted injury per 10,000	2003-2005	N/A	9.5	9.4

Understanding the demographics and social characteristics of Sonoma County’s maternal, child and adolescent population is important in addressing the community’s health needs and planning prevention strategies. Trends in population size, racial/ethnic composition, age distribution, and other demographics require periodic assessment to ensure that public health interventions and policies are addressing the changing needs of the community.

Figure 1.
Population distribution by age category, Sonoma County 1995-2015

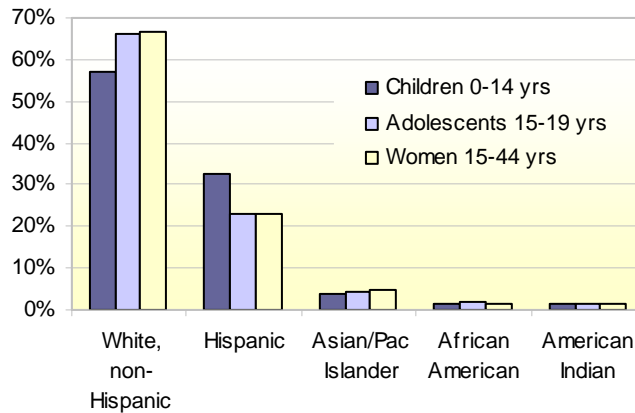
Source: California Department of Finance, Race/ethnic population with age and sex detail, 1995 and 2000-2050



Of the approximately 480,000 individuals living in Sonoma County in 2005, almost 20% were children ages 0-14 years old. Women of reproductive age also made up about 20% of the population. Since 1995 the proportion of the population 0-14 years has decreased and show a continuing decreasing trend through 2015. This is also true for the population of women ages 15-44 years. Adolescents (ages 15-19), which make up about 7% of the population, show little change as a percent of the population from 1995 to 2015.

Figure 2.
Population distribution by age and race/ethnicity, Sonoma County 2006

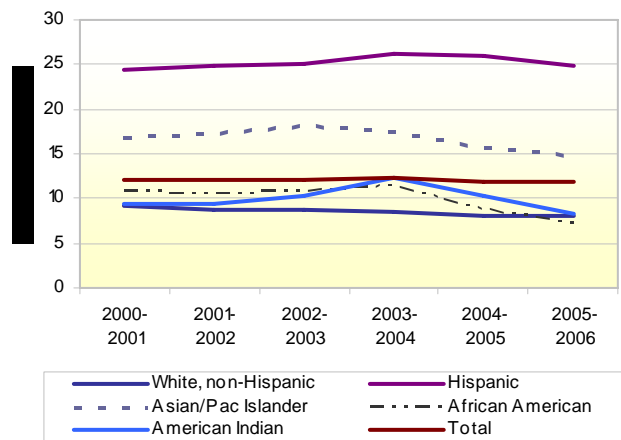
Source: California Department of Finance, Race/ethnic population with age and sex detail, 2000-2050



In 2006, the majority of Sonoma County residents were White, non-Hispanic-72% of the total population. The proportion of the population that are Hispanic-currently about 20%- is expected to increase by over 30%, or about 26,000 people, by 2015. In 2006, a higher proportion of Hispanic residents were 0-14 years than adolescents 15-19 years or women age 15-44 years.

Figure 3.
Birth rates by maternal race/ethnicity, Sonoma County 2000-2006

Source: California Department of Health Services, Vital Statistics, Birth Records 2000-2006



While just over 20% of the women age 15-44 in Sonoma County are Hispanic, about 45% of all Sonoma County births are to Hispanic women. Hispanic birth rates are three times higher than those of White, non-Hispanics. The overall Sonoma County birth rate has decreased slightly since 2000, however, birth rates for individual race/ethnicities in the county have not changed significantly during this time period.

What is it?

Prenatal care refers to pregnancy-related health care provided to a woman during pregnancy. Prenatal care is more likely to be effective if women begin receiving care in the first trimester of pregnancy (first 3 months). Early prenatal care is measured as the proportion of births to women who had their first prenatal visit during the first trimester of pregnancy.

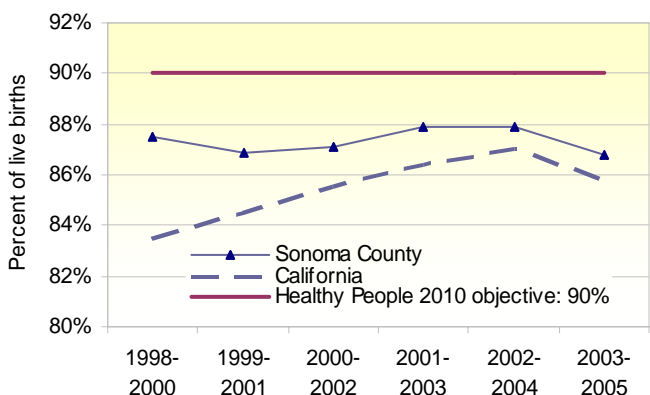
Public Health Importance

Prenatal care that begins early and continues throughout pregnancy can contribute to reductions in perinatal illness, disability, and death by identifying and mitigating potential risks and helping women to address behavioral factors, such as smoking and alcohol use, that contribute to poor birth outcomes.¹

What is Sonoma County's status?

Figure 4. First trimester prenatal care, 3-year moving average, Sonoma County and California, 2003 – 2005

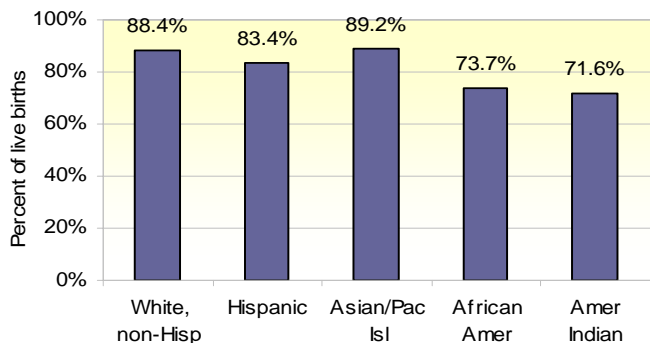
Source: California Department of Health Services, County Health Profiles, 1998-2005



During 2003-2005 almost 87% of pregnant women in Sonoma County received prenatal care in the first trimester. This was similar to the California rate of 85.8% for the same time period. Since 1998-2000, the California rate has increased overall while the Sonoma County rate has remained unchanged. Sonoma County has not yet achieved the Healthy People 2010 goal of 90%.

Figure 5. First trimester prenatal care by race/ethnicity of mother, Sonoma County 2003-2005

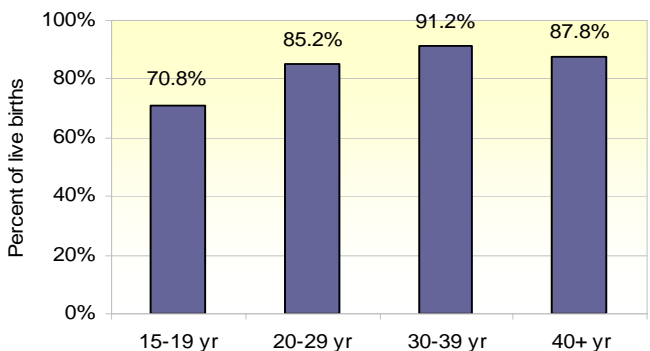
Source: California Department of Health Services, Vital Statistics, Birth Files, 2003-2005



White, non-Hispanic and Asian/Pacific Islander mothers had the highest rates of first trimester prenatal care and came close to achieving the Healthy People 2010 goal for 2003-2005. African Americans and American Indians had slightly lower rates of prenatal care in the first trimester, but these difference were not significant.

Figure 6. First trimester prenatal care by age of mother, Sonoma County 2003-2005

Source: California Department of Health Services, Vital Statistics, Birth Files, 2003-2005



Teen mothers had significantly lower rates of early prenatal care than older mothers. The Healthy People 2010 goal was achieved for women ages 30-39.

What is it?

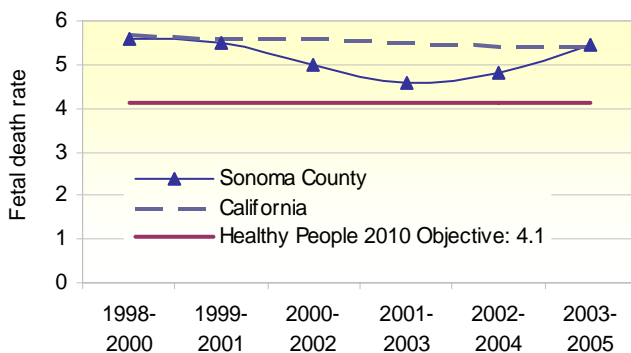
A fetal death is a death prior to the complete expulsion or extraction from the mother of a product of conception (irrespective of the duration of pregnancy); the death is indicated by the fact that after such separation, the fetus does not breathe or show any evidence of life.² For statistical purposes, fetal deaths are classified according to gestational age. A death that occurs at 20 weeks or more gestation constitutes a fetal death (also called a stillbirth) in California. The fetal death rate is the number of fetal deaths per 1,000 live births plus fetal deaths.

Public Health Importance

Fetal death has been estimated to occur in at least 75 percent of all women trying to conceive. Timing of losses varies and is related to the cause of death. While the most common cause of first trimester loss (conception to the 13th week of gestation) is chromosomal abnormality, second and third trimester losses can be attributed to many different single causes, or to a combination of causes.³

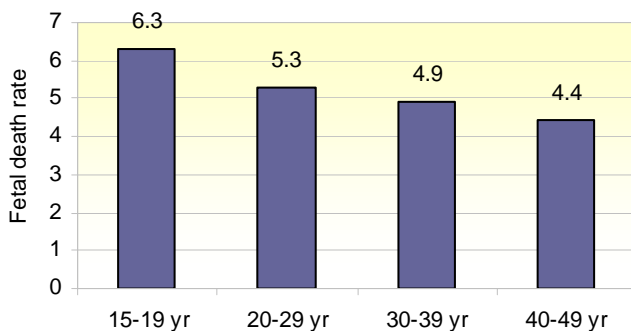
What is Sonoma County's status?

Figure 7. Fetal death rate, 3-year moving average Sonoma County and California 1998-2005



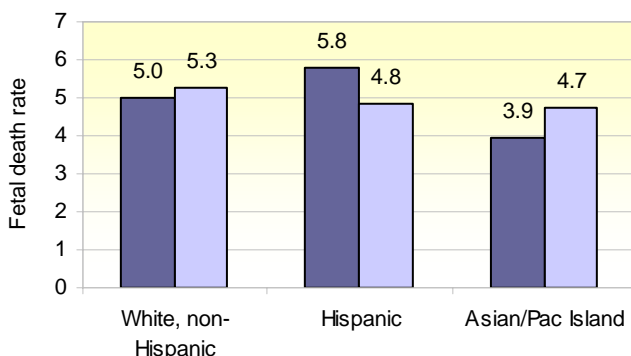
From 1998-2000 to 2001-2003, Sonoma County experienced a significant decrease in the fetal mortality rate due to a relative decline in number of fetal deaths in both 2002 and 2003. The rate increase in 2002-2004 and 2003-2005 was due to a return of the number of fetal deaths to numbers seen in typical years. Sonoma County fetal death rates remain similar to California rates, neither of which met the Health People 2010 goal.

Figure 8. Fetal death rate by maternal age, Sonoma County 2002-2005



National statistics indicate that fetal mortality rates are elevated for a number of groups including teens and older mothers. In Sonoma County (2002-2005), teens had the highest rate of fetal death but moms ages 40-49 had the lowest rate. This is, in part, due to the relatively low number of births and fetal deaths occurring to older moms which can result in significant variation in rates from year to year. The Healthy People 2010 goal has not been met for any maternal age category.

Figure 9. Fetal death rate by maternal race/ethnicity*, Sonoma County 2002-2005



For 2002-2005 Sonoma County fetal death rates were similar for all maternal race/ethnicities for which data were sufficient to calculate reliable rates. Rates among racial/ethnic groups were also comparable to California rates. The Healthy People 2010 goal was met for Asian/Pacific Islander mothers.

*Sonoma County rates for African American and American Indian unstable due to small numbers

Source: California Department of Health Services, Data Tables, Fetal Deaths by Residence, 2002-2005

What is it?

The breastfeeding initiation rate is measured as the proportion of mothers that breastfed their infants at the time of hospital discharge. Breastfeeding initiation includes exclusively breastfed infants and combination breastfed and formula fed infants (any breastfeeding).

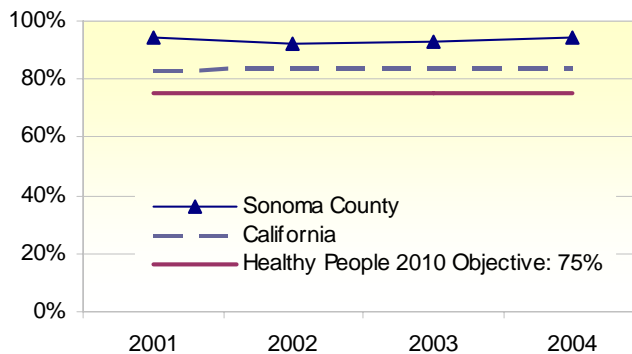
Public Health Importance

Breastfeeding is one of the most important contributors to infant health. While breastfeeding even for a short time is beneficial, it is recommended that infants are exclusively breastfed for the first 4 to 6 months of life.⁴ The benefits of breastfeeding include decreased incidence or severity of diarrhea, respiratory infections, and ear infections. Studies have also found lower rates of severe, chronic childhood diseases among children who were breastfed. In addition, breastfeeding has been shown to improve maternal health and contribute economic benefits to the family, health care system, and workplace.^{5,6}

What is Sonoma County's status?

Figure 10. Breastfeeding initiation rates, Sonoma County and California 2001-2004

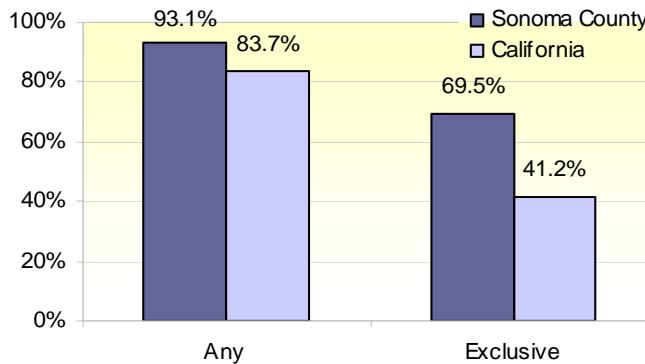
Source: California Department of Health Services, *In-Hospital Breastfeeding Initiation Rates by Maternal County of Residence, 2001-2004*



The proportion of women in Sonoma County that were breastfeeding at hospital discharge did not change significantly from 2001 to 2004. Sonoma County continues to have higher breastfeeding initiation rates than the state and has met the Healthy People 2010 objective for breastfeeding initiation.

Figure 11. Breastfeeding initiation rates by type, Sonoma County and California 2002-2004

Source: California Department of Health Services, *In-Hospital Breastfeeding Initiation Rates by Maternal County of Residence, 2002-2004*

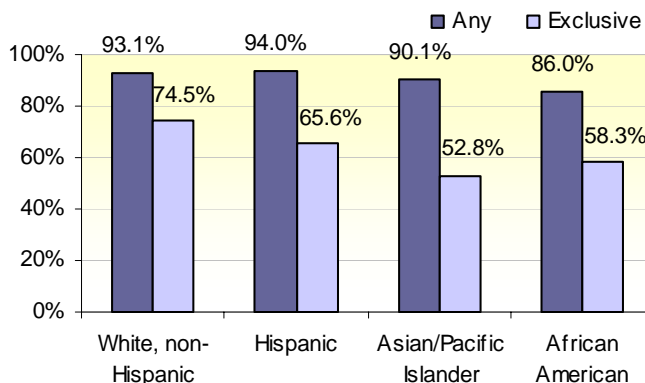


Sonoma County has significantly higher breastfeeding rates (both for any breastfeeding and for exclusive breastfeeding) than California. In fact, for 2002-2004 Sonoma County had the 6th highest (best) breastfeeding initiation rate of all 58 counties in California.

Figure 12. Breastfeeding initiation rates by type and race/ethnicity*, Sonoma County 2002-2004

*Data unavailable for American Indian/Alaska Native

Source: California Department of Health Services, *In-Hospital Breastfeeding Initiation Rates by Maternal County of Residence, 2002-2004*



The Healthy People 2010 goal is to increase breastfeeding initiation (any breastfeeding) to 75%. This goal has been met by all race/ethnic groups in Sonoma County for which data are available. Rates of exclusive breastfeeding vary greatly, however, with 75% of White women in Sonoma County breastfeeding exclusively compared to only 53% of Asian/Pacific Islander women.

What is it?

Infants weighing less than 2,500 grams (5.5 lbs) are considered low birth weight (LBW) and infants weighing less than 1,500 grams (3.3 lbs) are considered very low birth weight (VLBW). Rates are expressed as a proportion of live births.

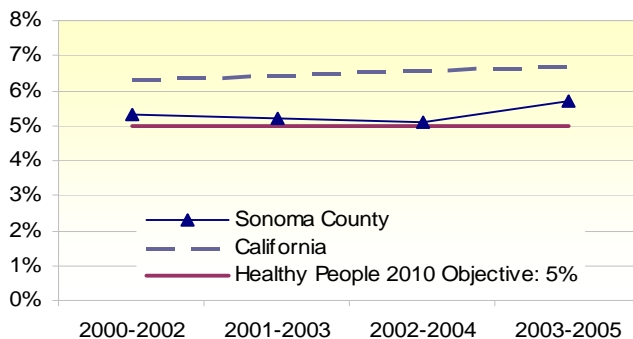
Public Health Importance

Low birth weight is a major public health problem in the United States, contributing substantially to infant mortality and childhood disability. Neonatal death is 40 times more likely among LBW infants and 200 times more likely among VLBW infants than among infants born at normal weight. In addition, LBW puts infants at higher risk for health problems, developmental delays and increased need of specialized medical, social, educational and other services.⁷ The principle determinant of low birth weight in the United States is preterm birth, the cause of which is largely unknown.

What is Sonoma County's status?

Figure 13. Percent of births born low birth weight, 3-year moving average, Sonoma County and California 2000-2005

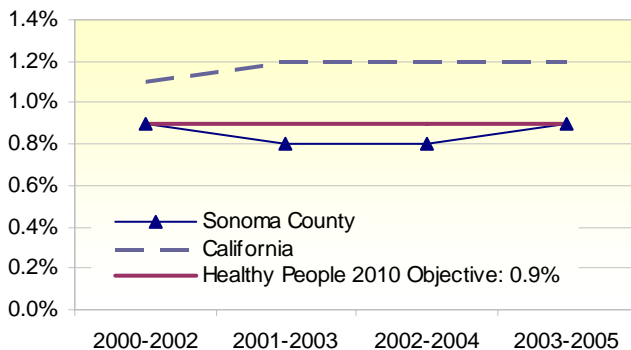
Source: California Department of Health Services, Vital Statistics, Birth Files, 2000-2005



The proportion of Sonoma County births that were low birth weight did not change significantly from 2000-2002 to 2003-2005. Sonoma County continues to have a significantly lower proportion of low birth weight births than California. Sonoma County has not met the Healthy People 2010 goal of 5%.

Figure 14. Percent of births born very low birth weight, 3-year moving average, Sonoma County and California 2000-2005

Source: California Department of Health Services, Vital Statistics, Birth Files, 2000-2005

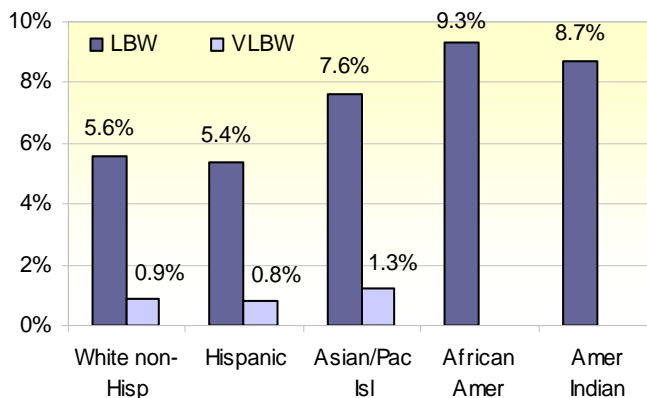


The proportion of Sonoma County births that were VLBW did not change significantly over the past 5 years. Sonoma County VLBW rates continue to be significantly lower than California rates and have met the Healthy People 2010 goal of 0.9%.

Figure 15. Percent of births that were LBW and VLBW* by mother's race/ethnicity, Sonoma County 2003-2005

*VLBW unstable for African American and American Indian due to small numbers

Source: California Department of Health Services, Vital Statistics, Birth Files, 2003-2005



Rates of low and very low birth weight vary by race/ethnicity. Nationally, African American women have significantly higher rates of low birth weight than other racial/ethnic groups. In 2003-2005 African American and American Indian women in Sonoma County had the highest proportion of low birth weight births. No race/ethnic group has met the Healthy People 2010 goal for low birth weight; however, the goal for very low birth weight was met for White, non-Hispanic and Hispanic women.

What is it?

A preterm birth is a birth occurring before 37 weeks' gestation and the preterm birth rate is measured as a proportion of live births.

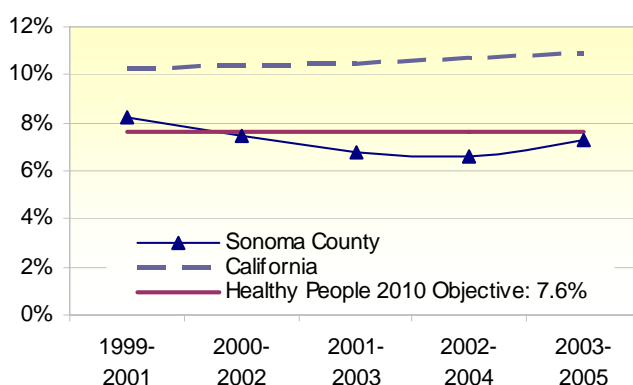
Public Health Importance

Preterm birth is a major challenge in perinatal health. Preterm birth is one of the predominant causes of low birth weight, and is the third leading cause of infant mortality in the United States. Most mortality and morbidity affects "very preterm" infants (those born before 32 weeks' gestation), and especially "extremely preterm" infants (those born before 28 weeks' gestation). The causes of preterm birth are largely unknown but factors associated with infants born too early include previous preterm birth, multiple gestation births, low socioeconomic status, mother's age less than 18 or older than 40 years, and non-White race.⁸

What is Sonoma County's status?

Figure 16. Percent of births born preterm, 3-year moving average, Sonoma County and California 1999-2005

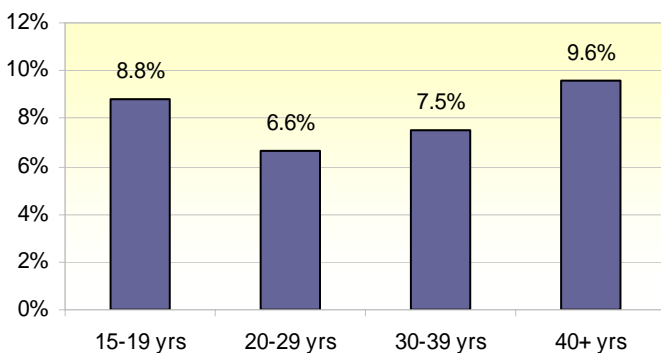
Source: California Department of Health Services, Data Tables, Percent of Live Births with Selected Medical Characteristics, 1999-2004



Sonoma County experienced a decrease in the proportion of births that were preterm from 1999-2001 to 2002-2004 but increased slightly in 2003-2005. This increase follows a state and national trend that has been attributed to numerous socioeconomic, biological and environmental factors. Despite the increase, Sonoma County preterm birth rates continue to be lower than California rates and meet the Healthy People 2010 goal of 7.6%.

Figure 17. Percent of births born preterm by mother's race/ethnicity, Sonoma County 2003-2005

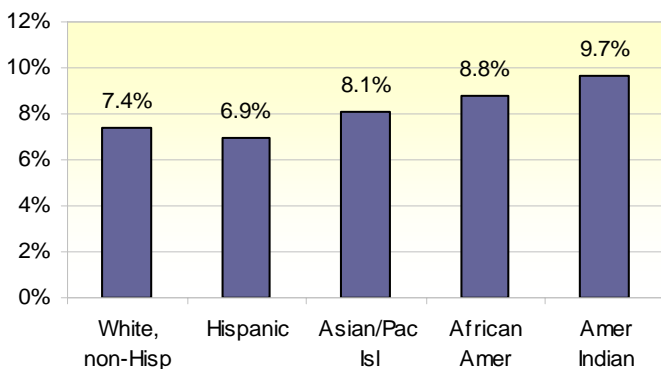
Source: California Department of Health Services, Vital Statistics, Birth Records, 2003-2005



In 2003-2005, preterm birth rates in Sonoma County were high among teens and women 40 years and older. Women ages 40+ had rates of preterm birth that were 45% higher than women ages 20-29. The Healthy People 2010 goal was met by women ages 20-29 and 30-39.

Figure 18. Percent of births born preterm by mother's age, Sonoma County 2003-2005

Source: California Department of Health Services, Vital Statistics, Birth Records, 2003-2005



In 2003-2005, rates of preterm birth were higher among African American and American Indian women than women of other race/ethnicities. Higher preterm birth rates for African American and American Indian mothers have less of an impact on the overall preterm birth rate in Sonoma County because they represent a small proportion of total births (1.5% and 1%, respectively). Preterm birth rates for White, non-Hispanic and Hispanic women met the Healthy People 2010 goal.

What is it?

Infant mortality is defined as the death of a child less than 1 year of age. The infant mortality rate is the number of deaths of children less than 1 year old per 1,000 live births. The neonatal mortality is the number of infant deaths occurring before 28 days per 1,000 live births and the postneonatal mortality rate is the number of infant deaths occurring at ages 28 days to 1 year per 1,000 live births.

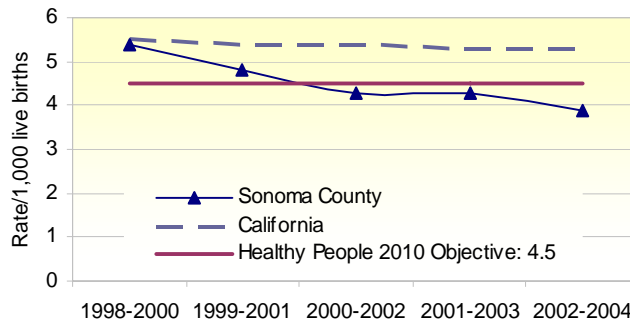
Public Health Importance

Infant mortality is an important indicator of the health of a population because it is associated with a variety of factors such as maternal health, quality of and access to medical care, socioeconomic conditions, and public health practices. Maternal and family characteristics that influence infant mortality include age, education, marital status, access to medical care, and the use of cigarettes, alcohol and other drugs during pregnancy. Other influential variables include birth order, previous history of fetal or infant loss, adequacy of prenatal care, and birth weight.⁹

What is Sonoma County's status?

Figure 19. Infant mortality rate, 3-year moving average, Sonoma County and California 1998-2004

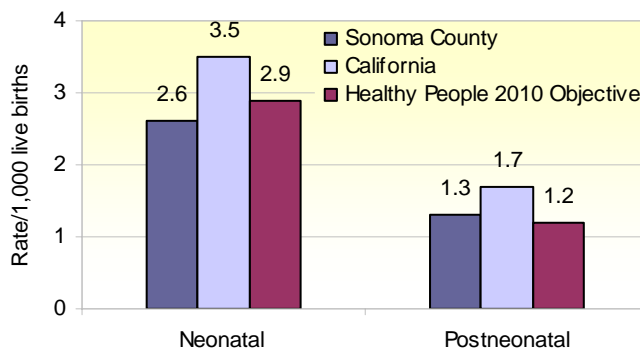
Source: California Department of Health Services, Vital Statistics, Death Records, 1998-2004



The Sonoma County infant mortality rate decreased significantly from 1998-2000 to 2002-2004. In 2003-2005 the Sonoma County rate was significantly lower than the California rate. Sonoma County has met the Healthy People 2010 goal of less than 4.5 deaths per 1,000 live births.

Figure 20. Neonatal and postneonatal mortality rate, Sonoma County and California 2002-2004

Source: California Department of Health Services, Vital Statistics, Death Records, 2002-2004

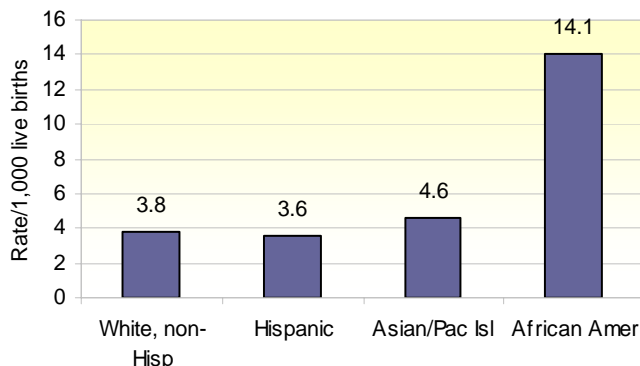


The majority of infant deaths occur during the neonatal period (before 28 days). For 2002-2004 the Sonoma County neonatal mortality rate was lower than the California rate and met the Healthy People 2010 objective. Postneonatal mortality rates were similar for Sonoma County and California, neither of which have met the Healthy People 2010 objective of 1.2/1,000 live births.

Figure 21. Infant mortality rate by maternal race/ethnicity*, Sonoma County 2000-2004

*Rates for American Indian unstable due to small numbers

Source: California Department of Health Services, Vital Statistics, Death Records, 2000-2004



From 2000-2004 the Sonoma County infant mortality rate was lowest among infants born to Hispanic mothers. While only 6 African American infant deaths occurred in this 5 year period, the infant mortality rate was 3 to 4 times higher than rates for other race/ethnicities.

What is it?

Body Mass Index (BMI) is a number calculated from a child's weight and height. The percentile indicates the relative position of the child's BMI number among children of the same sex and age. Children who are $\geq 85^{\text{th}}$ percentile and $< 95^{\text{th}}$ percentile are considered overweight and children at or greater than the 95th percentile are considered obese. In California, these data are collected for children enrolled in Child Health and Disability Prevention (CHDP) program during health screening appointments. CHDP serves low income children and teens who are typically at higher risk for overweight and obesity.

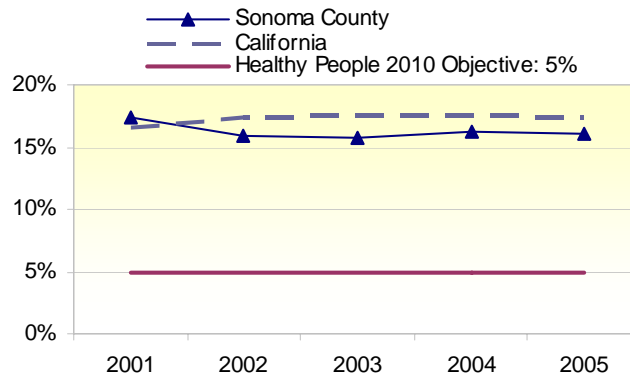
Public Health Importance

Overweight young people are more likely than children of normal weight to become overweight or obese adults, and therefore more at risk for associated adult health problems, including heart disease, type 2 diabetes, stroke, several types of cancer, and osteoarthritis. In addition, children who are overweight are at greater risk for sleep apnea and social and psychological problems such as stigmatization and poor self-esteem.¹⁰

What is Sonoma County's status?

Figure 22. Percent of children ages 2-4 who are obese, Sonoma County and California 2001-2005

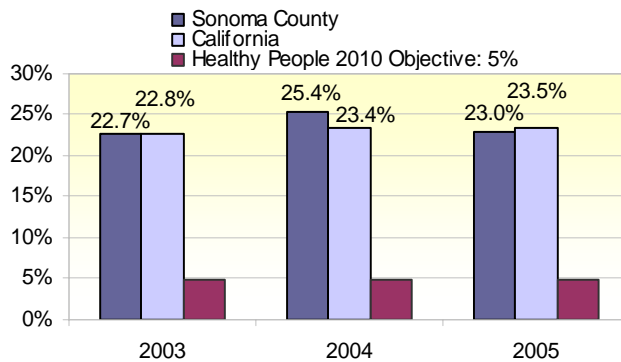
Source: Pediatric Nutrition Surveillance System (PedNSS), 2001-2005



Among low income children (the only population for which these data are routinely collected) ages 2-4 in Sonoma County and California, the proportion of children who were obese was more than 3 times the Healthy People 2010 goal of 5%. The rate in Sonoma County did not change significantly from 2001 to 2005. Sonoma County rates are similar to those of California.

Figure 23. Percent of children ages 5-14 who are obese, Sonoma County and California 2003-2005

Source: PedNSS, Sonoma County and California 2003-2005

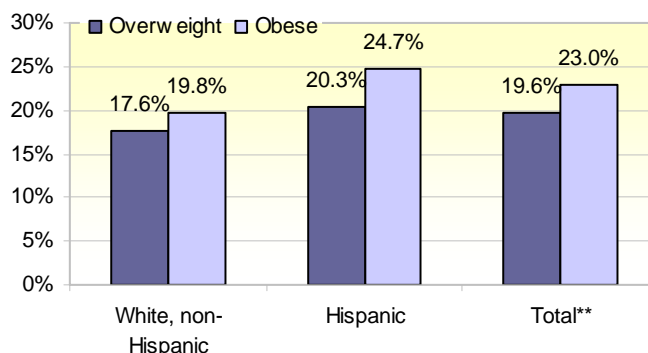


The proportion of children ages 5-14 who were obese was significantly higher than for children 2-4 yrs. This rate did not change significantly from 2003 to 2005. The proportion of Sonoma County children who were obese was similar to California for this time period but was almost 5 times higher than the Healthy People 2010 goal.

Figure 24. Percent of children ages 5-14 who are overweight or obese by race/ethnicity*, Sonoma County 2005

*Data available for White, non-Hispanic and Hispanic only due to insufficient numbers for other race/ethnicities
 **Total includes all race/ethnicities

Source: PedNSS, Sonoma County and California 2003-2005



In 2005, the proportion of Hispanic children ages 5-14 who were overweight or obese was slightly higher than for White, non-Hispanic children and children of all race/ethnicities. According to the National Academy of Sciences Institute of Medicine, obesity is more prevalent among Hispanic children in United States.

What is it?

Child abuse is often narrowly defined as having only physical implications. In reality, child abuse includes physical abuse, unlawful corporal punishment or injury; general and severe neglect; sexual abuse, sexual assault and exploitation; willful harming or endangering a child; and emotional maltreatment.¹¹ The child abuse rate is the number of unduplicated and substantiated child abuse referrals per 1,000 children ages 0-17.

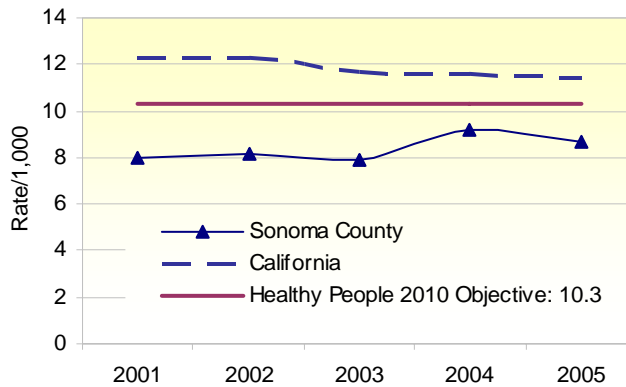
Public Health Importance

Child abuse and neglect have known detrimental effects on the physical, psychological, cognitive, and behavioral development of children. These consequences range from minor to severe and include physical injuries, brain damage, chronic low self-esteem, problems with bonding and forming relationships, developmental delays, learning disorders, and aggressive behavior. Beyond the trauma inflicted on individual children, child maltreatment also has been linked with long-term, negative societal consequences such as low academic achievement, drug use and juvenile delinquency.¹²

What is Sonoma County's status?

Figure 25. Substantiated child abuse rate, Sonoma County and California 2001-2005

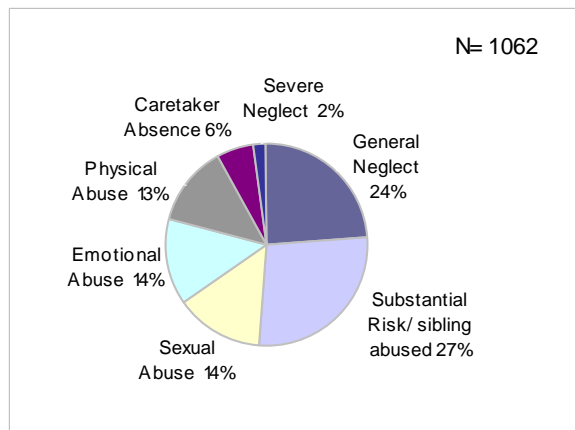
Source: Child Welfare Services Report for California, Substantiated Child Abuse Rates, Sonoma County and California, 2001-2005



The Sonoma County child abuse rate did not change significantly from 2001-2005. The Sonoma County rate was significantly lower than the California rate from 2001-2003 before it rose (and the California rate fell) in 2004. Still, the rate continues to meet the Healthy People 2010 goal.

Figure 26. Substantiated child abuse by allegation type, Sonoma County FY 2005/2006

Source: Child Welfare Services Report for California, FY 05/06



Over half of all substantiated child abuse allegations in Sonoma County for the fiscal year 2005/2006 was due to general neglect and substantial risk of child. Substantial risk refers to a situation where a child or family wanted/needed services but the child abuse investigation did not result in an abuse or neglect allegation being substantiated. Physical, emotional, and sexual abuse contributed equally to the overall number of substantiated child abuse referrals.

What is it?

An unintentional injury is a non-fatal injury that is not purposefully inflicted. The childhood unintentional injury hospitalization rate is the number of hospitalizations for unintentional injury per 10,000 children ages 0-14.

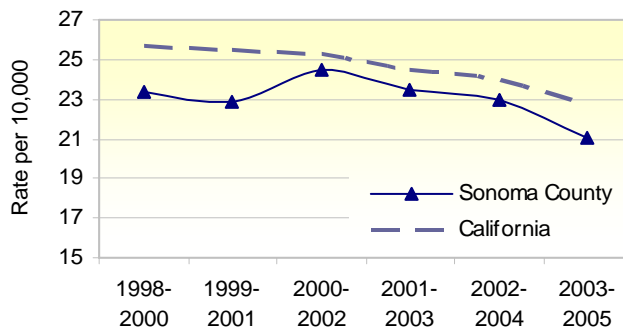
Public Health Importance

Unintentional injury is the leading cause of death among children age 14 and under in the United States. For every childhood death due to unintentional injury an estimated 18 are hospitalized and another 233 are treated in the emergency room. Injuries can cause loss of quality of life from pain and loss of motor and/or cognitive function. Moreover, even mild brain injury can result in problems with memory, learning and future school performance. Families often experience direct financial impact due to the burden of medical care and rehabilitation, and a parent's inability to participate in the workforce.¹³

What is Sonoma County's status?

Figure 27. Unintentional injury hospitalization rate, children ages 0-14, 3-year moving average, Sonoma County and California 1998-2005

Source: Office of Statewide Health Planning and Development, Hospital Discharge Data 1998-2004

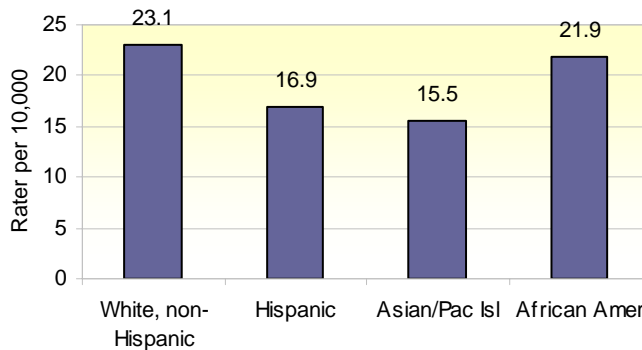


From 1998-2000 to 2003-2005 there was an overall decrease in the rate of unintentional injury hospitalizations for Sonoma County children ages 0-14. The Sonoma County rates were similar to the California rates during this time period. No Healthy People 2010 goal is established for this indicator.

Figure 28. Unintentional injury hospitalization rate by race/ethnicity*, ages 0-14, Sonoma County 2003-2005

*Rate for American Indian unstable due to small numbers

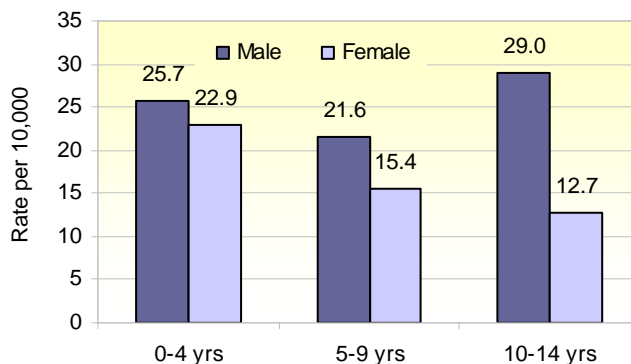
Source: Office of Statewide Health Planning and Development, Hospital Discharge Data 2003-2005



White, non-Hispanic children had the highest rate of unintentional injury hospitalization of all race/ethnicities for which reliable data were available.

Figure 29. Unintentional injury hospitalization rate by gender and age category, Sonoma County 2003-2005

Source: Office of Statewide Health Planning and Development, Hospital Discharge Data 2003-2005



For 2003-2005 Sonoma County males had higher rates of unintentional injury hospitalizations than females of the same age groups. This difference was especially apparent for the 10-14 year age category where the rate for males was more than twice the female rate.

What is it?

The child death rate is the number of deaths, from all causes, to children between ages 1 and 14 per 100,000 children in this age group.

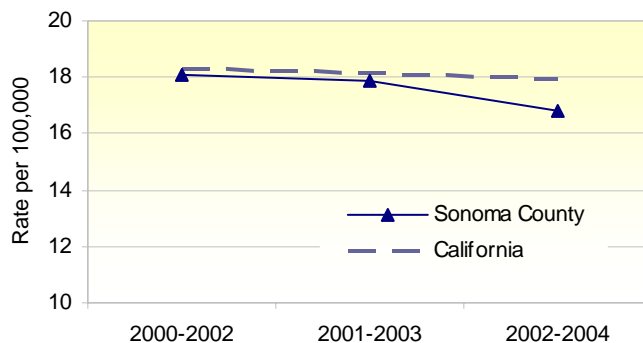
Public Health Importance

The death of a child is a great tragedy for family and friends as well as a loss to the community. Injury, which is largely preventable, is a leading cause of death among children and youth in the United States, accounting for more than a third of all deaths.¹⁴

What is Sonoma County's status?

Figure 30. Death rate, ages 1-14, 3-year moving average, Sonoma County and California 2000-2004

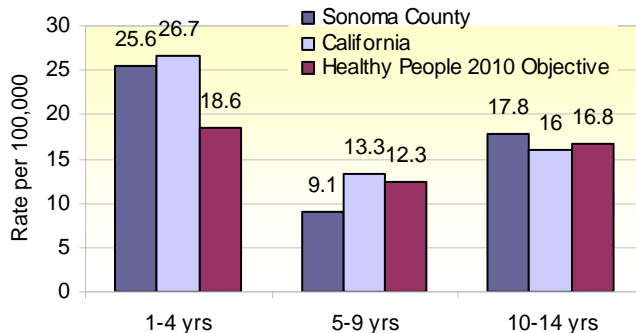
Source: California Department of Health Services, Vital Statistics, Death Records 2000-2004



From 2000-2002 to 2002-2004 the Sonoma County child death rate did not differ significantly from the California rate. During this time period the Sonoma County rate decreased slightly.

Figure 31. Death rate by age, Sonoma County and California 2002-2004

Source: California Department of Health Services, Vital Statistics, Death Records 2002-2004

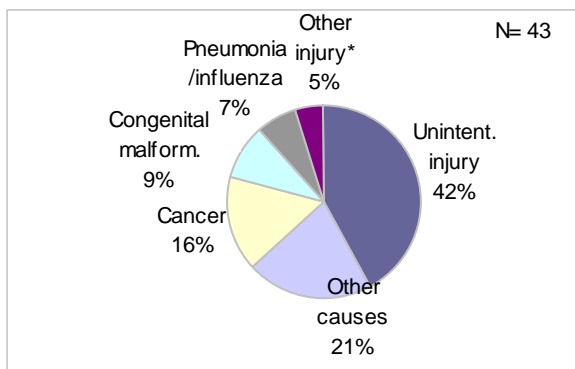


From 2002-2004 death rates were highest among Sonoma County children ages 1-4. Sonoma County death rates in all age groups were similar to California rates. Death rates were lowest for the 5-9 year age group, the only group for which the Healthy People 2010 goal was met.

Figure 32. Deaths by cause, ages 1-14, Sonoma County 2002-2004

*Other injury includes homicide and injury of undetermined intent

Source: California Department of Health Services, Vital Statistics, Death Records 2002-2004



Of the 43 deaths that occurred in Sonoma County from 2002-2004, almost half were due to injury. Cancer was the second leading cause of childhood death. Other causes of death include infectious disease, disease of the nervous system and other ill defined or unknown causes.

What is it?

The Centers for Disease Control and Prevention's (CDC) immunization schedule for children recommends 4 doses of the diphtheria, tetanus, and pertussis vaccine, 3 or more doses of polio vaccine, 1 or more doses of the measles-mumps-rubella vaccine, 3 or more doses of the *Haemophilus influenzae* type b vaccine, the hepatitis B vaccine, and the varicella (chickenpox) vaccine.¹⁵ The first indicator measures the proportion of kindergarten children who were up to date on routine vaccinations by their second birthday. The second indicator measures the proportion of children entering kindergarten with all of the required immunizations.

Public Health Importance

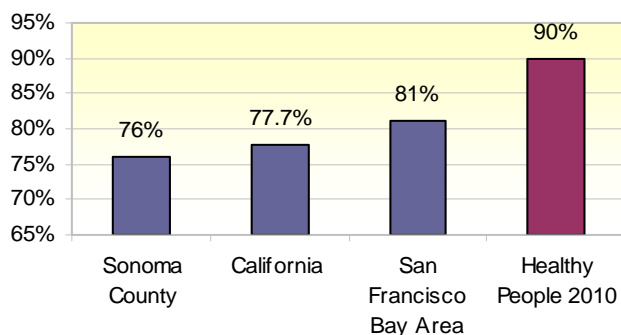
The CDC recommends vaccinating children against most vaccine-preventable diseases by the time they are 2 years old. Childhood immunizations are responsible for the control of many infectious diseases that were once common in this country, including polio, measles, diphtheria, pertussis, rubella, mumps, tetanus, and *Haemophilus influenzae* type b. The reduction in incidence of these infectious diseases is the most significant public health achievement of the past 100 years, and vaccination has played a key role in this progress.¹⁶

What is Sonoma County's status?

Figure 33. Percent of kindergarten students who were up to date on routine vaccinations by 24 months of age, Sonoma County, California and SF Bay Area 2005 and 2006*

*Data for Sonoma County only available for 2005

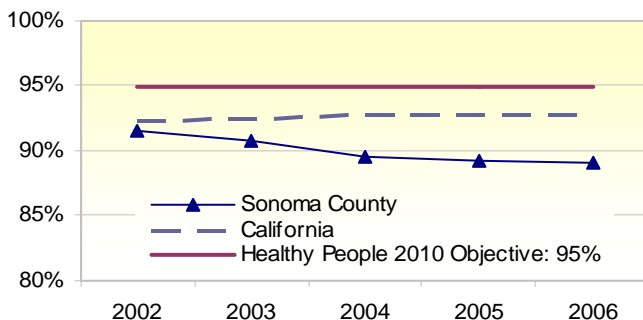
Source: Expanded Kindergarten Retrospective Study, 2005 and 2006



The percent of Sonoma County kindergarten students who were up-to-date on their routine vaccinations by age 2 was similar to the California rate but significantly lower than for the San Francisco Bay Area and the Healthy People 2010 goal.

Figure 34. Percent of kindergarten entrants with the required immunizations, Sonoma County and California 2002-2006

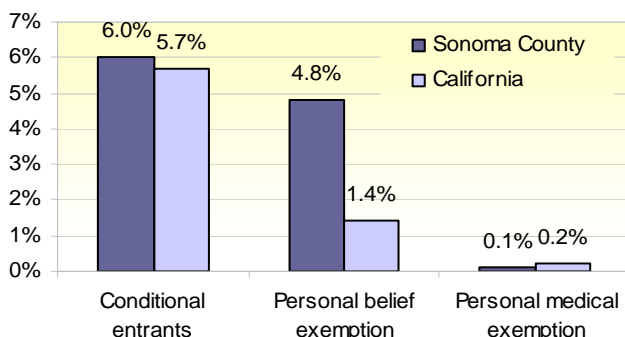
Source: California Department of Health Services, Immunization Branch, Kindergarten Assessment 2002-2006



From 2002 to 2006 Sonoma County saw a significant decrease in the proportion of children entering kindergarten with all of the required immunizations. Sonoma County rates have been consistently lower than California rates, neither of which met the Healthy People 2010 objective.

Figure 35. Percent of kindergarten entrants without required immunization by reason, Sonoma County 2006

Source: California Department of Health Services, Immunization Branch, Kindergarten Assessment 2002-2006



The majority of kindergarten children who had not received all of the required immunizations were conditional entrants, children lacking one or more required vaccine that were not yet due to be administered. Sonoma County's rate of children with personal belief exemptions is significantly higher than that of California. A personal belief exemption allows parents to choose an exemption from immunizing their children based on personal belief.

What is it?

Iron deficiency anemia is a deficit in the number of red blood cells, caused by a lack of sufficient iron. Children aged 1 to 2 years are considered anemic if their hemoglobin (Hb) concentration is less than 11.0 g/dL or hematocrit (Hct) level is less than 33.0%; children aged 2 to 5 years are considered anemic if their Hb concentration is less than 11.1 g/dL or their Hct level is less than 33.3%.¹⁷ In California, these data are collected for children enrolled in Child Health and Disability Prevention (CHDP) program during health screening appointments. CHDP serves low income children and teens who are typically at higher risk for iron deficiency anemia.

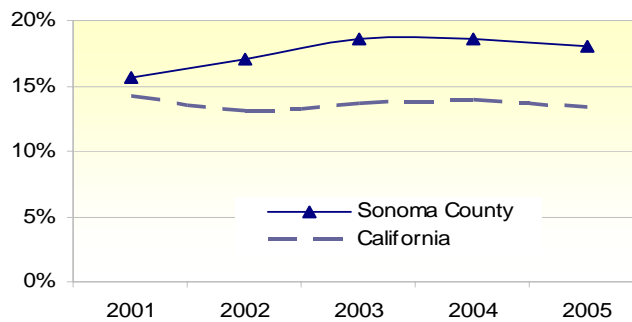
Public Health Importance

Iron deficiency is the major cause of anemia in children. Iron deficiency anemia can be the consequence of several factors including insufficient iron in the diet, poor absorption of iron by the body and periods of rapid growth. Children who don't eat enough or who eat foods that are poor sources of iron are at risk for developing the condition. In infants (< 1 year) and preschool children (ages 1-5 years) iron-deficiency anemia can result in developmental delays and behavioral problems. These developmental delays may persist past school age if the iron deficiency is not fully reversed. Iron-deficiency anemia also contributes to lead poisoning in children by increasing the gastrointestinal tract's ability to absorb heavy metals, including lead.¹⁸

What is Sonoma County's status?

Figure 36. Proportion of children <5 years with iron deficiency anemia, Sonoma County and California 2001-2005

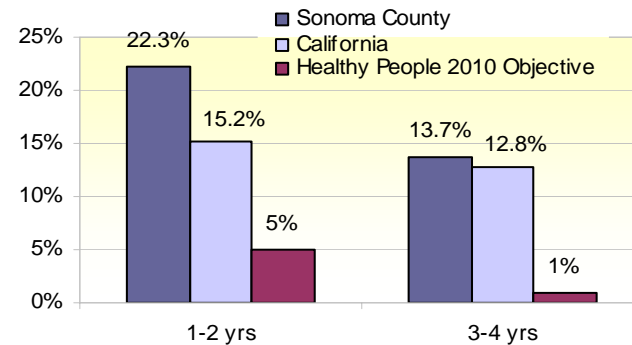
Source: Pediatric Nutrition Surveillance Survey, 2001-2005



The proportion of low income children age 5 and younger in Sonoma County with iron deficiency anemia increased slightly from 2001 to 2005 while the California rate remained relatively stable. The Sonoma County rate of iron deficiency anemia is now significantly higher than the California rate. In 2005, only 4 other counties in California had rates higher than Sonoma County.

Figure 37. Proportion of children with iron deficiency anemia by age, Sonoma County and California 2005

Source: Pediatric Nutrition Surveillance Survey, 2005

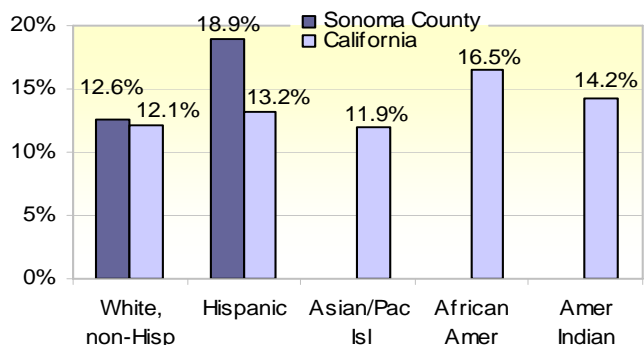


The proportion of children with iron deficiency anemia varied by age category. In 2005 the Sonoma County rate for children ages 1-2 was significantly higher than for children ages 3-4. The rate for 1-2 year olds was significantly higher for Sonoma County than California and the Healthy People 2010 goals have not been met by either age group.

Figure 38. Proportion of children with iron deficiency anemia by race/ethnicity*, Sonoma County and California 2005

*Sonoma County Asian/Pac Isl, African Amer, and Amer, Indian rates unavailable due to small numbers

Source: Pediatric Nutrition Surveillance Survey, 2005



Data for Sonoma County children less than 5 with iron deficiency anemia were available for White, non-Hispanic and Hispanic children. Hispanic children in Sonoma County had a significantly higher rate of iron deficiency anemia than White, non-Hispanic children. In California overall, African American children had the highest rates of iron deficiency anemia.

What is it?

The asthma hospitalization rate is the number of hospitalizations for children ages 0-4 with asthma as the primary diagnosis per 10,000 population.

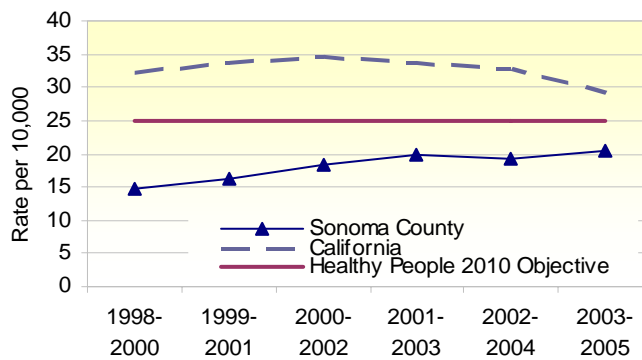
Public Health Importance

Asthma, a respiratory disease characterized by narrowing of the airways resulting in wheezing, coughing and difficulty breathing. Asthma attacks can vary from mild to life-threatening and can be triggered by many factors including allergens, infections, exercise, or exposure to airway irritants such as tobacco smoke.¹⁹ Asthma often can be managed with medication and regular medical monitoring; however, children with asthma may experience repeated absences from school when their asthma flares up. Children without access to regular medical care are more likely to suffer from serious episodes that may result in trips to the emergency room and even hospitalization.²⁰

What is Sonoma County's status?

Figure 39. Asthma hospitalization rate, ages 0-4, 3-year moving average, Sonoma County and California 1998-2005

Source: California Office of Statewide Health Planning and Development, Patient Level Hospital Discharge data, 1998-2005

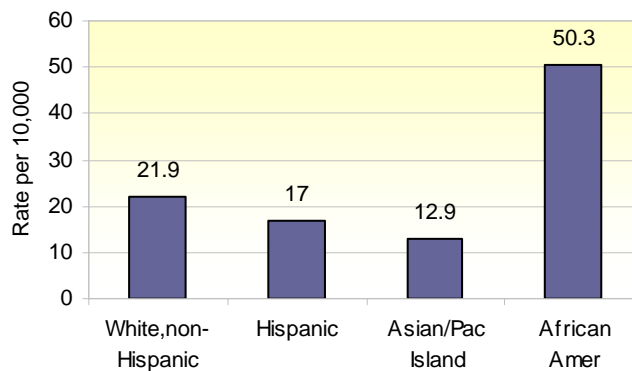


The hospitalization rate among Sonoma County children 0-4 years increased significantly from 1998-2000 to 2003-2002. The rate, however, remains significantly lower than the California rate and continues to meet the Healthy People 2010 objective.

Figure 40. Asthma hospitalization rate by race/ethnicity*, ages 0-4, Sonoma County 2005

*Rates for American Indian unstable due to small numbers

Source: California Office of Statewide Health Planning and Development, Patient Level Hospital Discharge data, 2005



In 2005 asthma hospitalization rates differ significantly among racial/ethnic groups in Sonoma County with rates for African American children more than twice as high as those of White, non-Hispanic children and 4 times higher than rates for Asian/Pacific Islander children.

What is it?

The teen birth rate is defined as the number of live births to mothers ages 15-19 per 1,000 females 15-19 of age in the population. The percentage of teen births is defined as the number of births to mothers ages 15-19 per 100 live births. The number of teen births is not the same as the number of teen pregnancies. It is estimated that 51% of teen pregnancies result in birth, 35% in abortion and 14% in miscarriage. Therefore, the teen pregnancy rate may be twice the teen birth rate.

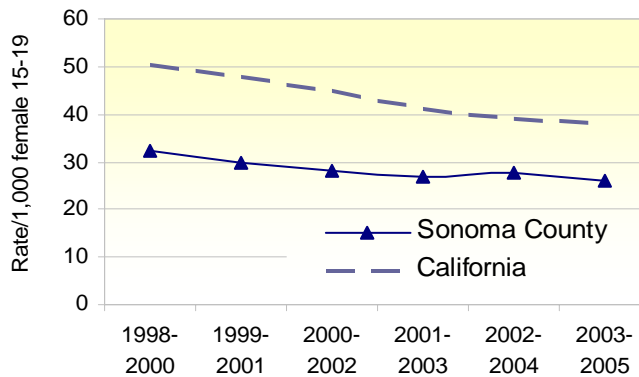
Public Health Importance

Teen mothers are at higher risk for poor birth outcomes such as prematurity and low birth weight than older mothers. Teen mothers typically have more difficulty completing their education, have fewer employment opportunities, and are more likely to require public assistance and to live in poverty than their peers.²¹

What is Sonoma County's status?

Figure 41. Teen birth rate, ages 15-19, 3-year moving average, Sonoma County and California 1998-2005

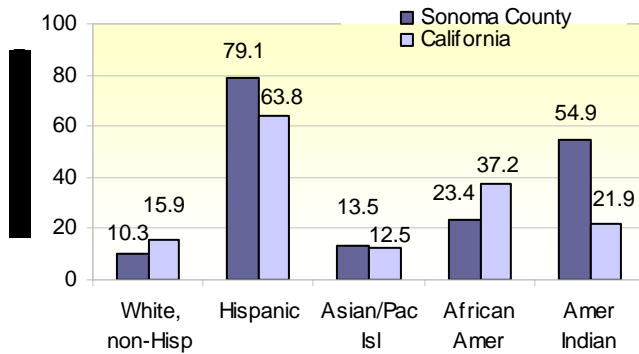
Source: California Department of Health Services, Vital Statistics, Birth Records, 2000-2004



From 1998 to 2005 the Sonoma County teen birth rate remained significantly lower than the California rate. Both the California and the Sonoma County rates have decreased significantly since 1998-2000 following a similar national trend.

Figure 42. Teen birth rate by race/ethnicity, ages 15-19, Sonoma County 2003-2005

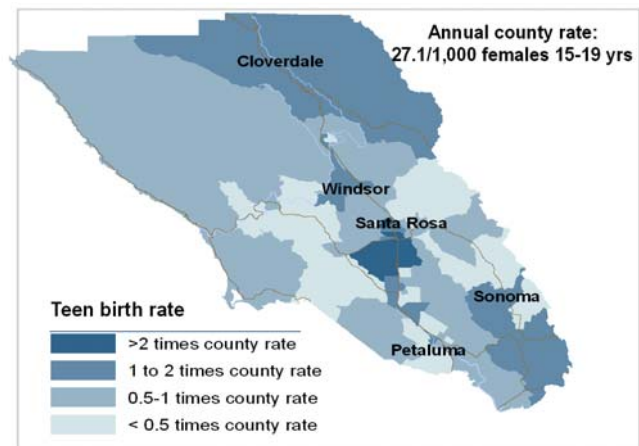
Source: California Department of Health Services, Vital Statistics, Birth Records, 2003-2005



In 2003-2005, teen birth rates were higher among Hispanics in Sonoma County than Hispanics in California. Sonoma County Hispanic teen birth rates were significantly higher than rates for all other race/ethnicities except American Indians.

Figure 43. Teen birth rates by census tract, Sonoma County 2003-2005

Source: California Department of Health Services, Vital Statistics, Birth Records, 2003-2005



Research on teen pregnancy risk factors indicates there is a strong correlation between teen pregnancy and the neighborhood in which a teen lives. Teens living in neighborhoods with high levels of poverty, low levels of education, and high residential turnover are at highest risk for teen pregnancy. In Sonoma County, teen birth rates were more than twice as high as the annual county rate in the southwest and southeast areas of Santa Rosa.

What is it?

Body Mass Index (BMI) is a number calculated from a teen’s weight and height. The percentile indicates the relative position of the BMI number among youth of the same sex and age. Teens who are $\geq 85^{\text{th}}$ percentile and $< 95^{\text{th}}$ percentile are considered overweight and children at or greater than the 95^{th} percentile are considered obese. In California, these data are collected for children and teens enrolled in Child Health and Disability Prevention (CHDP) program during health screening appointments. CHDP serves low income children and teens who are typically at higher risk for overweight and obesity.

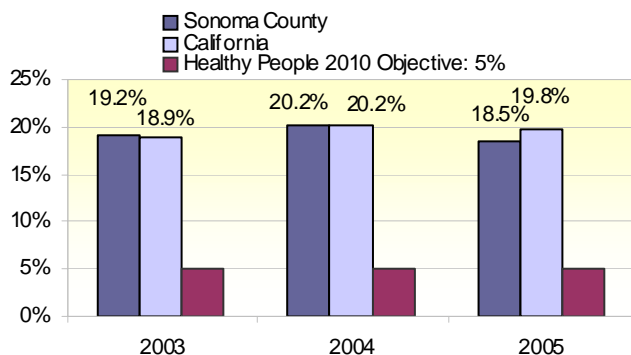
Public Health Importance

Overweight is a serious health concern for adolescents. Overweight adolescents are at risk for health problems during their youth and as adults. For example, during their youth, overweight adolescents are more likely to have risk factors associated with cardiovascular disease (such as high blood pressure, high cholesterol, and Type 2 diabetes) than are other adolescents.²² In addition, overweight teens are more likely to become obese as adults.²³

What is Sonoma County’s status?

Figure 44. Proportion of teens who are obese, ages 15-19 Sonoma County and California 2003-2005

Source: Pediatric Nutrition Surveillance System (PedNSS), 2003-2005

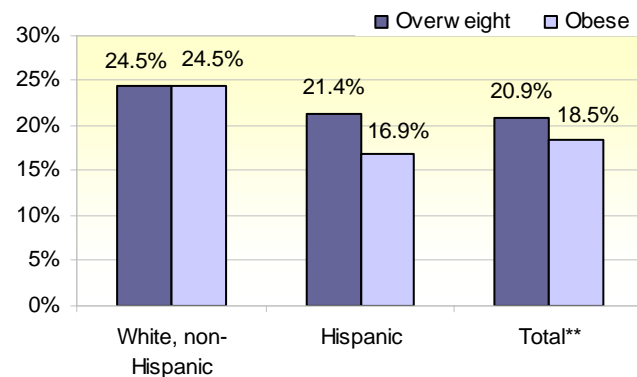


The proportion of Sonoma County adolescents who were overweight did not change significantly from 2003-2005. Rates of overweight were similar for Sonoma County and California, and were about 4 times higher than the Healthy People 2010 goal.

Figure 45. Proportion of teens who are overweight or obese by race/ethnicity*, ages 15-19 Sonoma County and California 2005

*Data available for White, non-Hispanic and Hispanic only due to insufficient numbers for other race/ethnicities
 **Total includes all race/ethnicities

Source: Pediatric Nutrition Surveillance System (PedNSS), 2003-2005



In 2005, almost 50% of White, non-Hispanic teens were overweight or obese, higher than rates for Hispanic teens and for all teens (all race/ethnicities).

What is it?

This indicator measures the proportion of students in 9th and 11th grade who reported smoking cigarettes in the past month.

Public Health Importance

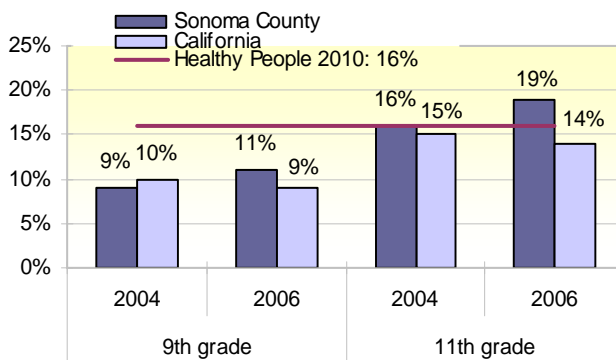
Tobacco use, including cigarette smoking, cigar smoking, and smokeless tobacco use, is the single leading preventable cause of death in the United States. Nearly all first use of tobacco occurs before high school graduation and almost 90% of adult smokers became addicted to tobacco at or before the age of 18. Young people who start smoking at an earlier age are more likely to develop long-term nicotine addiction than people who start later in life.

Cigarette smoking causes significant health problems among children and adolescents, including coughing, shortness of breath, production of phlegm, respiratory illnesses, reduced physical fitness, poorer lung growth and function, and worse overall health.²⁴

What is Sonoma County's status?

Figure 46. Proportion of students in 9th and 11th grade who reported smoking cigarettes in the past month, Sonoma County and California 2004 and 2006

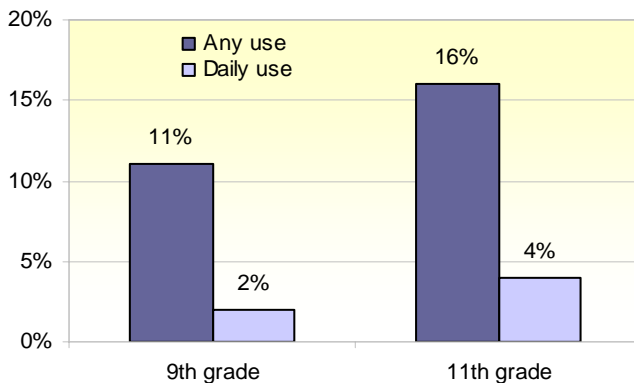
Source: California Healthy Kids Survey, 2004 and 2006



From 2004 to 2006 the proportion of Sonoma County students who reported smoking cigarettes in the past month increased slightly for both 9th and 11th graders while the rates decreased slightly for California. In 2006 Sonoma County students had higher rates of 9th and 11th graders who reported smoking in the past month than California.

Figure 47. Proportion of students in 9th and 11th grade who reported smoking cigarettes in the past month by usage, Sonoma County 2006

Source: California Healthy Kids Survey, 2006



The proportion of students who reported daily cigarette smoking (in the past month) was significantly lower than the proportion of those who reported any use in the past month. Daily and any reported cigarette smoking increased from 9th to 11th grade.

What is it?

This indicator describes the proportion of adolescents who reported drinking alcohol in the past month and drinking more than five drinks in a row (binge drinking) in the past month.

Public Health Importance

Alcohol is a factor in approximately 41% of all deaths from motor vehicle crashes. Among youth, the use of alcohol and other drugs has also been linked to unintentional injuries, physical fights, academic and occupational problems, and illegal behavior. Long-term alcohol misuse is associated with liver disease, cancer, cardiovascular disease, and neurological damage as well as psychiatric problems such as depression, anxiety, and antisocial personality disorder.²⁵

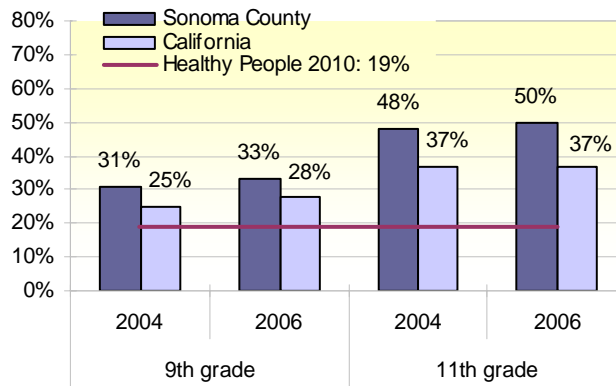
What is Sonoma County's status?

The proportion of Sonoma County students who reported using alcohol in the past month increased slightly from 2004 to 2006 for both 9th and 11th graders. Rates of alcohol use continue to be higher for Sonoma County than California in both 9th and 11th graders. Sonoma County has not met the Healthy People 2010 goal for either grade level.

The proportion of students who reported daily use of alcohol (in the past month) was significantly lower than the proportion that reported any use in the past month. Students in 11th grade were significantly more likely to report any monthly alcohol use than 9th grade students.

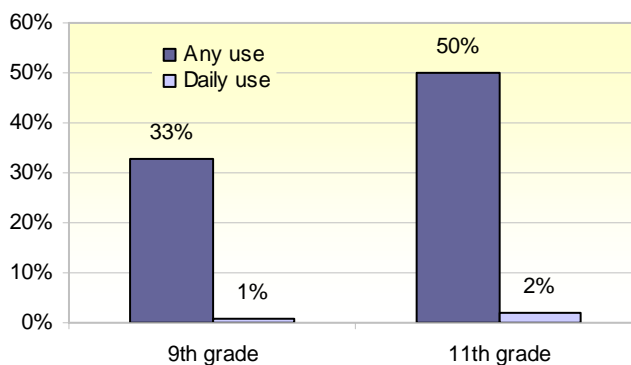
The proportion of Sonoma County students who reported binge drinking (5 or more drinks in a row) in the past month was higher than California for 9th and 11th graders. Students in 11th grade were significantly more likely to report binge drinking in the past month than 9th grade students.

Figure 48. Proportion of students in 9th and 11th grade who reported using alcohol in the past month, Sonoma County and California 2004 and 2006



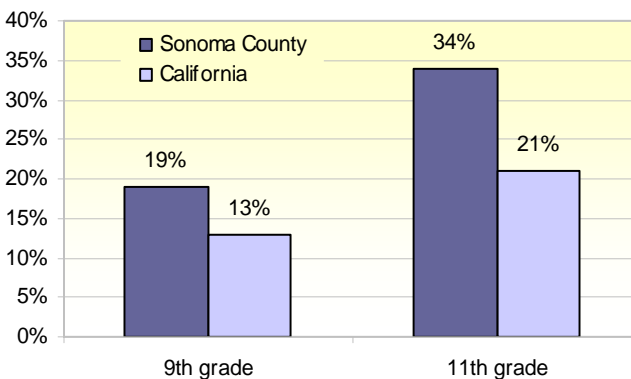
Source: California Healthy Kids Survey, 2004 and 2006

Figure 49. Proportion of students in 9th and 11th grade who reported using alcohol in the past month by usage, Sonoma County 2006



Source: California Healthy Kids Survey, 2006

Figure 50. Proportion of students in 9th and 11th grade who reported binge drinking (5+ drinks at a time) in the past month, Sonoma County and California 2006



Source: California Healthy Kids Survey, 2006

What is it?

The unintentional injury hospitalization rate is the number of hospitalizations due to unintentional injuries per 10,000 adolescents ages 15-19.

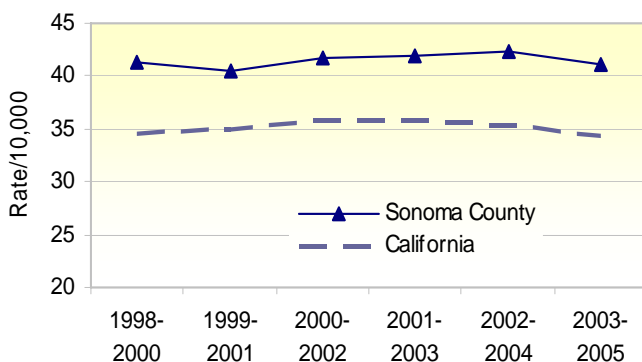
Public Health Importance

Compared with younger children, adolescents are more frequently exposed to certain risk factors, such as motor vehicles and firearms, yet they may not have developed the skills, experience, or judgment to reduce their injury risks. Early experiences with alcohol and other drugs may further increase their risk for injury.²⁶

What is Sonoma County's status?

Figure 51. Unintentional injury hospitalization rate, 3-year moving average, ages 15-19, Sonoma County and California 1998-2005

Source: Office of Statewide Health Planning and Development, Patient Hospitalization Data, 1998 to 20045

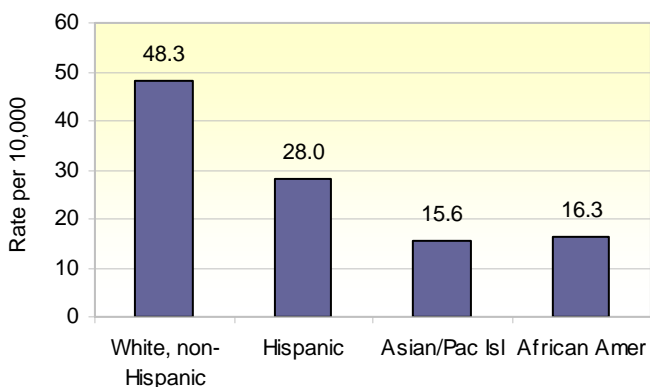


The unintentional injury hospitalization rate for Sonoma County teens remained relatively unchanged from 1998-2000 to 2003-2005. The Sonoma County rate was higher than the California rate during this time period.

Figure 52. Unintentional injury hospitalization rates by race/ethnicity*, ages 15-19, Sonoma County 2003-2005

*Rate for American Indian unstable due to small numbers

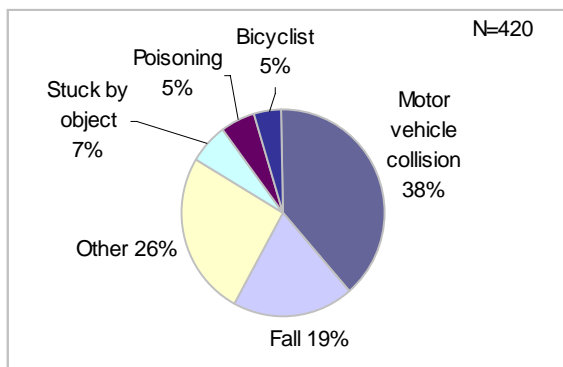
Source: Office of Statewide Health Planning and Development, Patient Hospitalization Data, 2003 to 2005



For 2003-2005 unintentional injury hospitalization rates were highest among White, non-Hispanic teens ages 15-19, almost twice the rate of Hispanic teens and 3 times the rates of Asian/Pacific Islander and African American teens.

Figure 53. Unintentional injury hospitalizations by cause, ages 15-19, Sonoma County 2003-2005

Source: Office of Statewide Health Planning and Development, Patient Hospitalization Data, 2003 to 2005



Motor vehicle collisions and falls were the primary cause of more than half of all hospitalizations to teens ages 15-19. Male teens were twice as likely to be hospitalized due to a fall and 1 and 1/2 times as likely to be hospitalized due to a motor vehicle collision than female teens.

What is it?

The adolescent death rate is the number of deaths, from all causes, to youth between ages 15 and 19 per 100,000 in this age group.

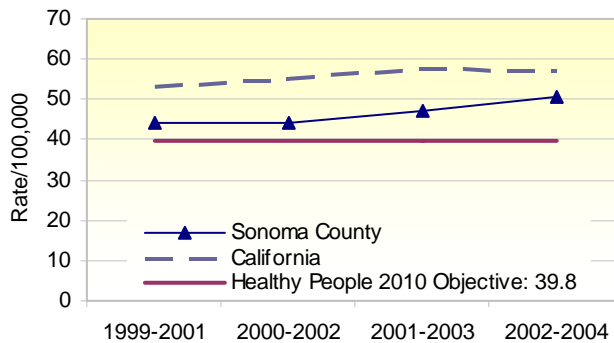
Public Health Importance

In the United States adolescent death rates have declined over the past decade, yet they remain more than 3 times higher than death rates for children ages 10-14. Adoption of high risk behaviors, such as alcohol, tobacco and drug use, sensation seeking (eg, doing dangerous things just for fun), and failure to take appropriate safety precautions, during adolescence is often cited as the primary factor contributing to the higher death rates.²⁷ Injury, often a result of risk-taking behaviors, is the cause of three out of four teen deaths.²⁸

What is Sonoma County's status?

Figure 54. Adolescent death rate, ages 15-19, 3-year moving average, Sonoma County and California 1999-2004

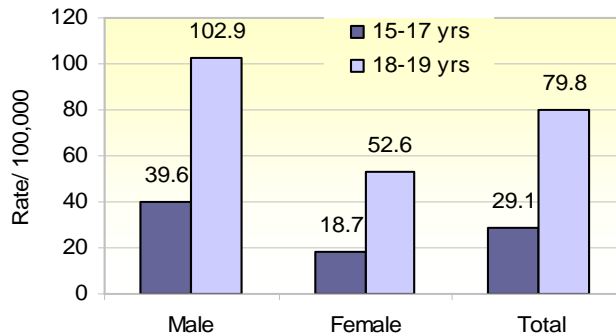
Source: California Department of Health Services, Vital Statistics, Death Records 1999-2004



While the adolescent death rate in Sonoma County remains lower than the California rate, it increased significantly from 1999-2001 to 2002-2004. Additionally, the Healthy People goal has not been met.

Figure 55. Adolescent death rate by age and gender, Sonoma County 2000-2004

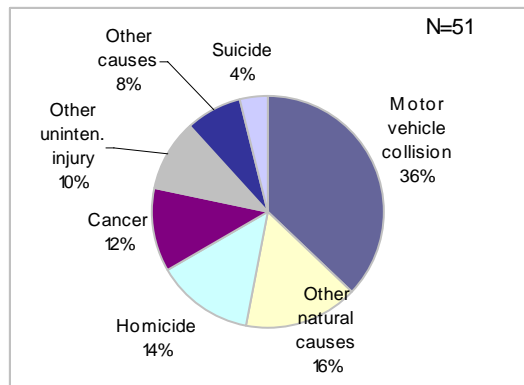
Source: California Department of Health Services, Vital Statistics, Death Records 1999-2004



Adolescent death rates vary by age and gender. Male death rates are higher than female rates for both age categories. Death rates for ages 18-19 are 3 times higher than rates for teens 15-17 years.

Figure 56. Adolescent deaths by cause, Sonoma County 2002-2004

Source: California Department of Health Services, Vital Statistics, Death Records 1999-2004



From 2002 to 2004 there were 51 deaths to adolescents. Motor vehicle collision was responsible for more than 1 in 3 teen deaths. All injury (unintentional, homicide and suicide) was responsible for more than 60% of all teen deaths.

What is it?

The adolescent homicide rate is the number of deaths due to homicide per 100,000 youth ages 15-19 and the assault rate is the number of hospitalizations due to assault injuries per 10,000 youth ages 15-19.

Public Health Importance

Violent injury and death disproportionately affect children, adolescents, and young adults in the United States. Although rates for homicides have dropped in recent years, they are still unacceptably high. Homicide is the second leading cause of death among young people ages 15 to 19. Just as alarming as the number of young people dying from violence is the number of young people who are committing violent acts. Among the homicide offenders in 2000 whose age was known by authorities, approximately 48% were 24 or younger and 9% were younger than 18 years.²⁹

What is Sonoma County's status?

Table 1. Homicide death rates, ages 15-19, 3-year moving average, Sonoma County and California 1998-2004

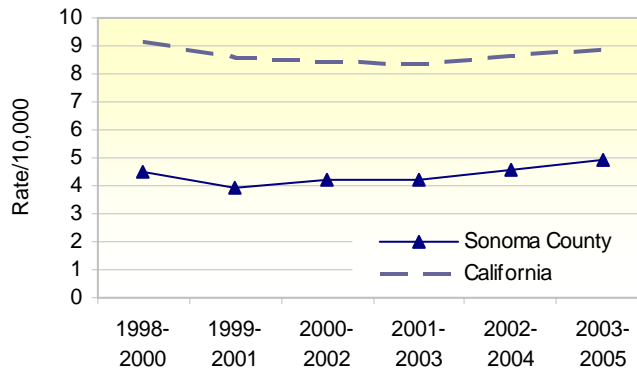
	Sonoma County	California
1998-2000	*	14.0
1999-2001	*	13.0
2000-2002	8.1	13.1
2001-2003	12.0	13.5
2002-2004	9.9	14.4

*Rates unstable due to small numbers

Source: California Department of Health Services, Vital Statistics, Death Records 1998-2004

Deaths to Sonoma County teens ages 15-19 from homicide vary significantly from year to year. From 1998-2001 there was on average only 1 teen homicide death per year in Sonoma County. The Healthy People 2010 goal is to reduce homicide deaths of all ages to 3 per 100,000.

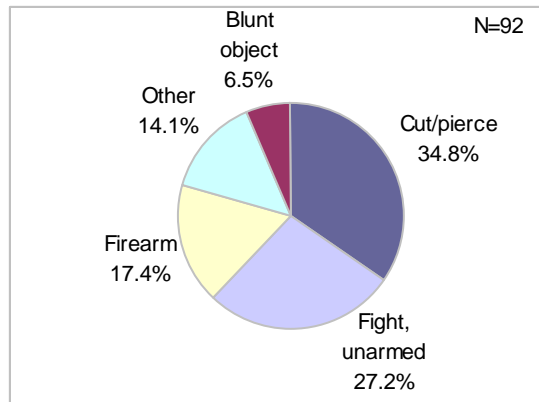
Figure 57. Hospitalization rates due to assault injury, ages 15-19 three year moving average, Sonoma County and California 1998-2005



Source: California Office of Statewide Health Planning and Development, Patient discharge data 1998-2005

The Sonoma County teen (15-19 years) hospitalization rate due to assault was significantly lower than the California rate. From 2000-2005 male teens were significantly more likely to be hospitalized from an assault injury than female teens (92% males, 8% female). This is also true of homicide deaths. From 2000-2004, 92% of all teen homicide deaths were to males.

Figure 58. Assault injury hospitalizations by cause, ages 15-19 Sonoma County 2000-2005



Source: California Office of Statewide Health Planning and Development, Patient discharge data 1998-2005

From 2000-2005 the primary cause of injury in assault hospitalizations among teens was being cut and/or pierced. From 2000-2004 the majority of homicide deaths among teens was caused by firearms.

What is it?

Suicide is any purposely self-inflicted injury that is fatal. Fatal injuries that involve reckless behavior, such as drinking and driving, are not classified as suicides. Non fatal self-inflicted injury is often, but not always, the result of a suicide attempt. The suicide death rate is the number of deaths from suicide to teens ages 15-19 per 100,000 population. The self-inflicted injury rate is the number of hospitalizations due to self-inflicted injury per 10,000 teens 15-19 years.

Public Health Importance

The overall rate of suicide among youth has declined slowly since 1992. Still suicide remains a serious public health problem in the United States. Suicide is the third leading cause of death among young adults ages 15-24 and suicide attempts are responsible for numerous hospitalizations and emergency room visits. Adolescents and young adults often experience stress, confusion, and depression from situations occurring in their families, schools, and communities. Such feelings can overwhelm young people and lead them to consider suicide as a “solution.” Few schools and communities have suicide prevention plans that include screening, referral, and crisis intervention programs for youth.³⁰

What is Sonoma County’s status?

Table 2. Suicide death rate, ages 15-19, 3-year moving average, Sonoma County* and California 1998-2004

*Rates unstable due to small numbers

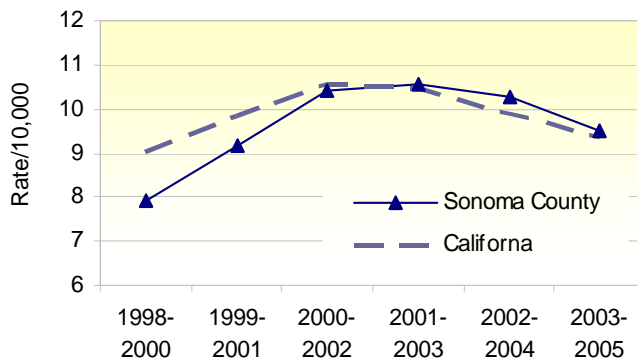
Source: California Department of Health Services, Vital Statistics, Death Records 1998-2004

	Sonoma County	California
1998-2000	7.4	5.2
1999-2001	5.1	4.9
2000-2002	*	4.9
2001-2003	*	4.9
2002-2004	*	5.1

The number of deaths from suicide among Sonoma County youth ages 15-19 have fallen since 1998-2000. From 2000 to 2004 suicide deaths decreased to less than an average 2 suicides per year. The California teen suicide death did not change significantly from 1998-2000 to 2002-2004. The Healthy People 2010 goal is to reduce suicide death rates for all ages to 5 per 100,000.

Figure 59. Hospitalization rate from suicide attempt, ages 15-19, 3 year moving average, Sonoma County and California 1998-2005

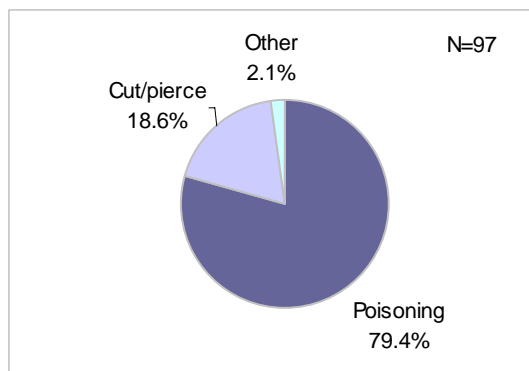
Source: California Office of Statewide Health Planning and Development, Patient discharge data 1998-2005



The suicide attempt rate among Sonoma County youth increased from 1998-2000 to 2000-2002 when it began to level off and then decline. The California trend was similar for the same time period. While 80% of suicide deaths that occurred from 1998 to 2004 were among males, hospitalizations from suicide attempts were more common among females (74%).

Figure 60. Suicide attempts by method, Sonoma County 2003-2005

Source: California Office of Statewide Health Planning and Development, Patient discharge data 2003-2005



Nearly 80% (N= 78) of all suicide attempts among Sonoma County teens from 2003-2005 were due to poisoning. In contrast, from 2000-2004, the majority (60%) of suicide deaths among Sonoma County teens was due to hanging and/or suffocation.

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