

## Chapter 2

# General Health Status

This chapter examines the general health status of Sonoma County's residents using several health indicators, such as leading causes of death, years of potential life lost due to premature death, and leading causes of hospitalization. These indicators provide a broad overview of the health status of the county's population and help to identify disparities within subgroups.

Highlights of this chapter include:

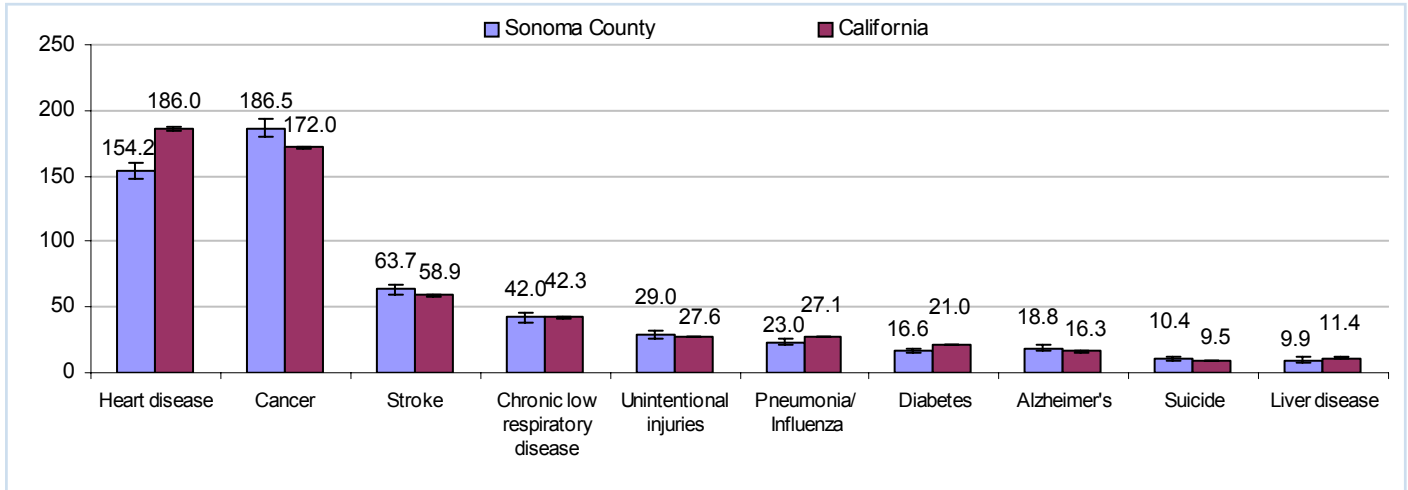
- ◆ The Sonoma County cancer death rate was significantly higher than the California rate. Cancer was the leading cause of death for women in Sonoma County.
- ◆ The Sonoma County heart disease death rate has decreased significantly since 1999, and was significantly lower than the California rate. For men in Sonoma County it remained the leading cause of death.
- ◆ In 2002, mental illness was the leading cause of hospitalization for Sonoma County adults age 25-44, the second leading cause for young adults age 15-24, and the third leading cause for children age 5-14.



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**Figure 2.1**  
**Leading Causes of Death, Three-year Average Rate\*, Sonoma County and California, 2000-2002**



\*Rates are age-adjusted and are per 100,000 population.

Note: Updated population estimates from the California Department of Finance may result in rates different than those published before May 2004.

Source: California State Department of Health Services, vital statistics death records 2000-2002.

## Mortality

From 2000 to 2002, Sonoma County residents had statistically higher age-adjusted death rates than California residents for cancer, stroke, Alzheimer's disease, and drug-related deaths. During the same time period, Sonoma County residents had lower age-adjusted death rates than California residents for heart disease, pneumonia/influenza and diabetes (Figure 2.1).<sup>1</sup>

Compared to 1999, the only leading cause of death in Sonoma County that had a significant rate change was heart disease. The age-adjusted death rate for heart disease decreased from 175.1/100,000 in 1999 to 154.2/100,000 (2000-2002 three-year average). Heart disease re-

**Table 2.1**  
**Leading Causes of Death by Age Group, Sonoma County 2000-2002**

	Cause 1	Cause 2	Cause 3
<b>Age &lt;1</b>	Conditions originating in the perinatal period	Congenital malformations	Sudden Infant Death Syndrome
<b>Age 1-14</b>	Unintentional injuries	Cancer	Disease of the nervous system
<b>Age 15-29</b>	Unintentional injuries	Suicide	Homicide
<b>Age 30-44</b>	Unintentional injuries	Cancer	Drug-related deaths
<b>Age 45-64</b>	Cancer	Heart disease	Unintentional injuries
<b>Age 65-84</b>	Cancer	Heart disease	Stroke
<b>Age 85+</b>	Heart disease	Cancer	Stroke

Source: California Department of Health Services, vital statistics death records 2000-2002.

mained the leading cause of death for males in Sonoma County.

Since 1999 cancer has been the overall leading cause of death in Sonoma County and the leading cause of death for women. Heart disease,

however, has been the leading cause of death in California and the nation for the past decade.<sup>2</sup>

In 2000-2002, cancer was a leading cause of death in all age groups in Sonoma County except infants un-



**Table 2.2**  
**Leading Causes of Death by Gender,**  
**Three-year Average Rate\*, Sonoma**  
**County 2000-2002**

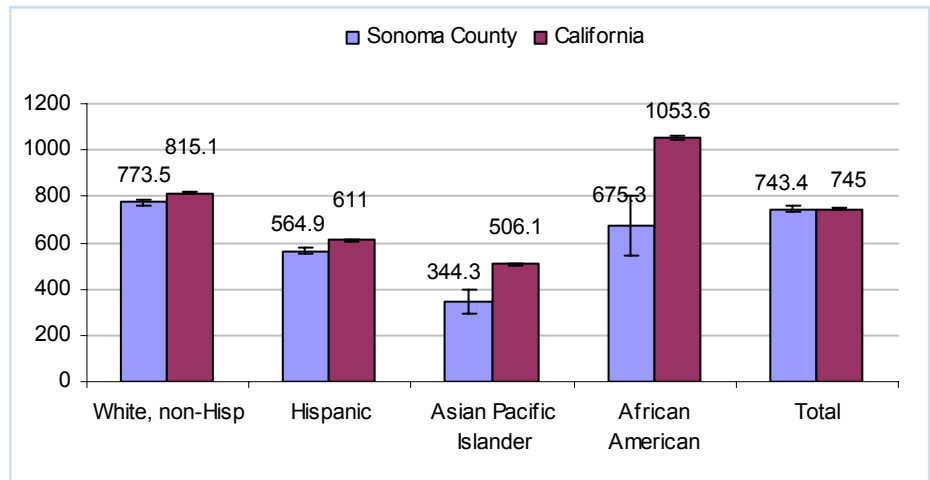
	Male	Female
Heart disease	237.6	156.4
Cancer	215.3	168.4
Stroke	62.2	64.2
Chronic low respiratory disease	46.6	38.9
Unintentional injuries	37.4	20.7
Pneumonia/influenza	26.3	20.8
Diabetes	20.5	13.8
Alzheimer's disease	15.0	21.0
Suicide	15.8	4.5
Liver disease	14.9	5.7
Drug-related deaths	11.6	8.9
AIDS	7.3	0.6
Homicide	4.7	1.2

\*Rates are age-adjusted and per 100,000 population.  
 Source: California Department of Health Services, vital statistics death records 2000-2002.

der age one, and young adults ages 15-29 (Table 2.1).

From 2000 to 2002, Sonoma County men had significantly higher death rates than women for 8 of the 13 leading causes of death, including heart disease, cancer, unintentional injuries, diabetes, suicide, liver disease, homicide and AIDS. Females in Sonoma County had a significantly higher death rate than their male counterparts for only one of the 13 causes of death, Alzheimer's disease (Table 2.2).

**Figure 2.2**  
**Death Rate by Race/Ethnicity, Sonoma County and California 2000-2002**



\*Rates are age-adjusted and per 100,000 population.

Source: California Department of Health Services, vital statistics death records 2000-2002.

From 1999 to 2000-2002, decreases in age-adjusted death rates in men occurred for stroke (84.1/100,000 compared to 62.2/100,000) and unintentional injuries (53.7/100,000 compared to 37.4/100,000). For Sonoma County females, a decrease in age-adjusted death rate was seen for cancer—from 203.9/100,000 in 1999 to 168.4/100,000 for 2000-2002.

In 2000-2002, White residents in Sonoma County had significantly higher age-adjusted death rates for cancer and stroke than White residents of California (195.7/100,000 and 64.1/100,000 compared to 191.6/100,000 and 58.9/100,000, respectively). They had significantly lower death rates for heart disease (161.9/100,000 and 239.9/100,000), chronic lower respiratory disease (44.8/100,000 and 50.9/100,000), and pneumo-

nia/influenza (23.4/100,000 and 28.1/100,000) than California White residents.

Due to small numbers, disease specific rates were not calculated for Hispanic, African American, and Asian/Pacific Islander populations in Sonoma County. It was not possible to calculate reliable rates for American Indian/Alaska Natives in Sonoma County or California. In 2000-2002, Sonoma County had significantly lower death rates for all race/ethnic groups than California (Figure 2.2). The age-adjusted death rate for Sonoma County White, non-Hispanic residents was significantly higher than both the Hispanic and Asian/Pacific Islander death rates.

## Years of Potential Life Lost (YPLL)

Years of potential life lost before age 75 (YPLL-75) are those years lost when a person dies prematurely, such as from preventable diseases or unintentional injuries. YPLL-75 calculations assume all people should be able to live to age 75. Diseases that lead to disproportionate mortality in younger age groups and those that affect large numbers of people have higher YPLL-75 values.<sup>3</sup> YPLL aids in understanding the burden of disease and injury in Sonoma County.

In 2000-2002 the leading causes of YPLL-75 for the population as a whole were cancer and unintentional injuries (Table 2.3).

The leading causes of YPLL-75 by race/ethnicity were cancer for Whites, African Americans and Asian/Pacific Islanders, and unintentional injuries for Hispanics and American Indian/Alaska Natives.

From 2000-2002, males in Sonoma County generally had higher YPLL-75 rates than females (Figure 2.3). For unintentional injuries, heart disease, suicide, liver disease, AIDS, and homicide, rates for men were more than twice as high as rates for women.

## Hospitalizations

In 2002, unintentional injury was a leading cause of hospitalization for every age category of Sonoma

**Table 2.3**  
Leading Causes\* of YPLL-75 by Race/Ethnicity, Sonoma County 2000-2002

	White, non-Hispanic	Hispanic	African American	Asian/Pacific Islander	American Indian/Alaska Native	Total
Cancer	1621.0	617.9	1886.3	941.7	727.0	1456.7
Heart disease	773.2	521.4	884.2	336.2	916.5	769.1
Unintentional injuries	752.9	1374.1	977.0	164.9	2157.8	843.6
Drug-related deaths	312.0	298.0	547.9	-	746.3	308.9
Suicide	289.4	69.2	118.9	-	-	244.3
Liver disease	182.8	104.7	284.5	-	197.2	172.0
Stroke	158.4	218.2	144.6	204.9	198.2	168.8
Chronic low respiratory disease	139.6	16.3	123.6	-	282.3	119.1
AIDS	121.8	85.5	450	-	-	116.6
Diabetes	107.9	62.7	459.3	126.8	-	107.2
Pneumonia/influenza	54.9	72.4	212.2	221.1	-	65.6

\*Rate is per 100,000 population.

Source: California Department of Health Services, vital statistics death records 2000-2002.

County residents. In 2002, mental illness was the leading cause of hospitalization for Sonoma County adults age 25-44, the second leading cause for young adults age 15-24, and the third leading cause for children age 5-14 (Table 2.4).<sup>4</sup>

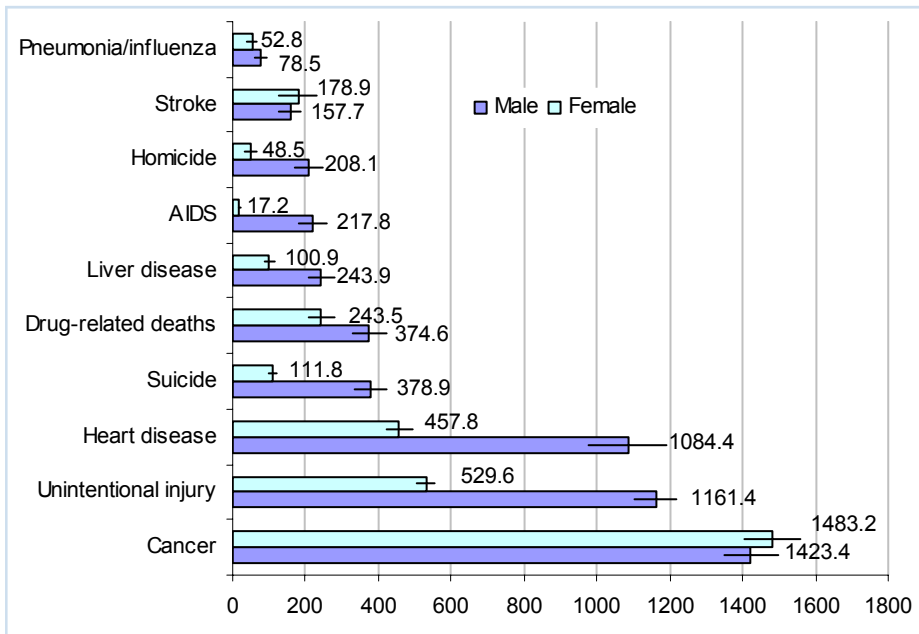
Potentially avoidable hospitalizations involves treating patients in an outpatient setting, thereby avoiding hospitalizations, and provides an opportunity for reducing the morbidity associated with certain health conditions.<sup>5</sup>

In 2002, approximately 3,700 (9%) of total hospitalizations in Sonoma County were potentially avoidable. Two conditions, pneumonia and congestive heart failure, accounted for more than half of all avoidable hospitalizations in the county (Table 2.5).

The rate of avoidable hospitalizations increased significantly with age (Table 2.6). Sonoma County adults age 65+ were more than 10 times more likely to have an avoidable hospitalization than those in younger age categories, but only



**Figure 2.3**  
**Leading Causes of YPLL-75 by Gender, Sonoma County 2000-2002**



\*Rates are age-adjusted and per 100,000 population.  
 Source: California Department of Health Services, vital statistics death records;  
 California Department of Finance population estimates 2000-2050, revised May 2004.

**Table 2.4**  
**Top Three Leading Causes of Hospitalizations by Age Group, Sonoma County 2002**

	Age group						
	0-4	5-14	15-24	25-44	45-64	65-84	85+
Unintentional injuries	24.6	25.7	45.2	40.6	53.5	191.7	563.4
Heart disease					85.6	399.5	721.6
Mental disorders		4.9	42.3	62.4	44.4		
Cancer						137.7	
Pneumonia/influenza	42.0						301.5
Perinatal period	74.9						
Appendicitis		12.4	12.9	11.0			

\*Rates are per 10,000 population.  
 Source: California Office of Statewide Health Planning and Development hospital discharge data, Sonoma County 2002.

**Table 2.5**  
**Leading Causes of Avoidable Hospitalizations, Sonoma County 2002**

Pneumonia	34%
Congestive heart failure	21%
Cellulitis	11%
Drug toxicity	8%
Asthma	7%
Bleeding Ulcer	5%
Ruptured appendix	4%
Diabetic coma	3%
Kidney infection	3%
Gastroenteritis	2%
Other	2%

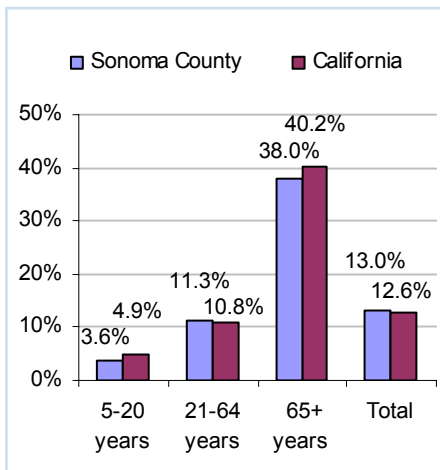
Source: California Office of Statewide Health Planning and Development hospital discharge data, Sonoma County 2002.

**Table 2.6**  
**Rates\* of Total and Avoidable Hospitalizations by Age, Sonoma County 2002**

Age group	Rate of:	
	Hospitalizations	Avoidable Hospitalizations
0-14	7,282.7	279.9
15-24	4,304.2	239.3
25-44	6,119.6	336.9
45-64	6,297.3	670.0
65-84	22,237.5	2,734.4
85+	41,009.1	6,553.3

\*Rates are per 100,000 population.  
 Source: California Office of Statewide Health Planning and Development hospital discharge data, Sonoma County 2002.

**Figure 2.4**  
**Proportion of Disabled Persons in Each Age Group, Sonoma County and California, 2003**



Source: US Census Bureau, American Community Survey 2003.

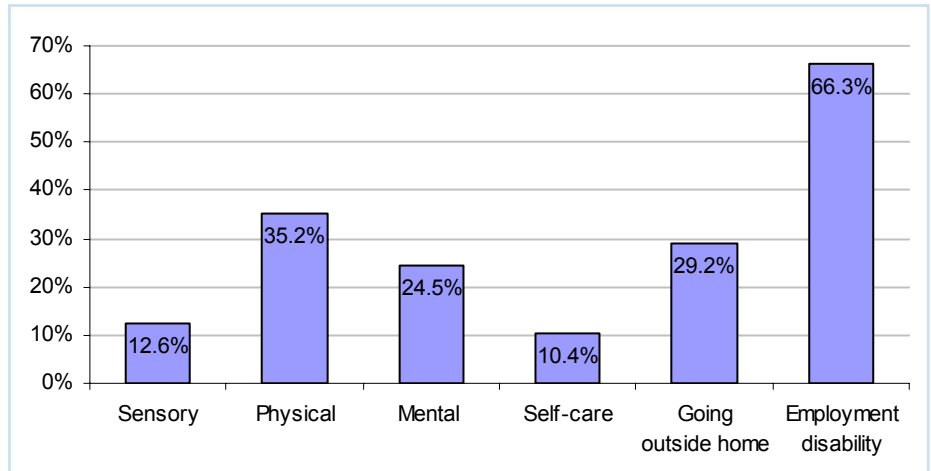
about four times more likely overall to have been hospitalized.

## Disability

Disabilities can include birth defects, chronic diseases, learning impairments, injuries, and alcohol and other drug addiction. These health conditions and the people affected by them are described by many different names, including “special needs,” “disabled population,” or “activity limitations,” and defined in many different ways, such as by eligibility for a specific program.<sup>6</sup>

Data from the 2001 California Health Information Survey indicate that about 22% (approximately 76,000) of Sonoma County adults reported having some limitation due to their physical health, and

**Figure 2.5**  
**Disabled Adults (age 18-64) by Type of Disability, Sonoma County 2000**



Source: US Census Bureau Independent Living Needs Assessment 2000.

over 6% of adults reported needing special equipment (such as a cane, a wheelchair, a special phone, or special bed) to assist them in daily activities.<sup>7</sup>

According to the 2003 American Community Survey by the US Census Bureau, approximately 13% of Sonoma County non-institutionalized individuals are disabled. This is similar to the proportion of California residents who are disabled (Figure 2.4). Older adults have the highest proportion of disabled individuals. Almost one in four Sonoma County residents age 65+ are defined as disabled.<sup>8</sup>

The majority of the disabled population age 18-64 (66.3%) have a disability limiting their employment (Figure 2.5).<sup>9</sup> Those individuals with an employment disability are unemployed either because of lack of accommodations in the work

place for their disability, or because even with accommodations their disability makes working impossible.<sup>10</sup>

## Health Status

In a 2001 survey of Sonoma County residents, on a five-point scale from “poor” to “excellent,” 87% reported they were in “good” health or better, with the majority (61%) reporting their health status as “very good” to “excellent.” Only 12.4% reported a “fair” or “poor” health status.<sup>11</sup>

Approximately 80% of Sonoma County seniors (age 65+) reported being in good health or better. This is similar to the reported health of California seniors (79.1%).

Over 42% of Sonoma County seniors said their health was very good



or excellent, compared to 38% of California seniors.

The overall percentage of Sonoma County adults reporting “fair” or “poor” health status decreased from 15.3% in 1997 to approximately 12% in 2001; however, the percentage of Hispanics reporting “fair” or “poor” health increased from 26.6% to 36.4% during the same time period. This is significantly higher than the percent of California Hispanics who reported “fair” or “poor” health in 2001 (26.2%).



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## Chapter 2 References

1. Unless otherwise indicated all death rates and statistics are from the State of California Department of Health Services. Vital Statistics, Death Records, 2000-2002.
2. Centers for Disease Control and Prevention. National Center for Health Statistics, Leading Causes of Death , 2002.
3. Centers for Disease Control and Prevention. Premature Mortality in the United States: Public Health Issues in the Use of Years of Potential Life Lost. MMWR Supplements, Dec 1986, Vol. 35 (2s).
4. Unless otherwise indicated all hospitalization rates and statistics are from California Office of Statewide Planning and Development, Patient Discharge Data, 2002.
5. Pappas,G et al. (1997). Potentially avoidable hospitalizations: Inequalities in rates between US socioeconomic groups. American Journal of Public Health, Vol. 87 (5).
6. US Census. Disability Status of the Civilian Non-Institutionalized Population by Sex and Selected Characteristics, 2000.
7. California Health Interview Survey, Sonoma County, 2001.
8. US Census. Sonoma County Social Characteristics, 2000.
9. Ibid.
10. Institute for Community Inclusion. The National Center on Workforce and Disability, 2002.
11. California Health Interview Survey, Sonoma County, 2001.