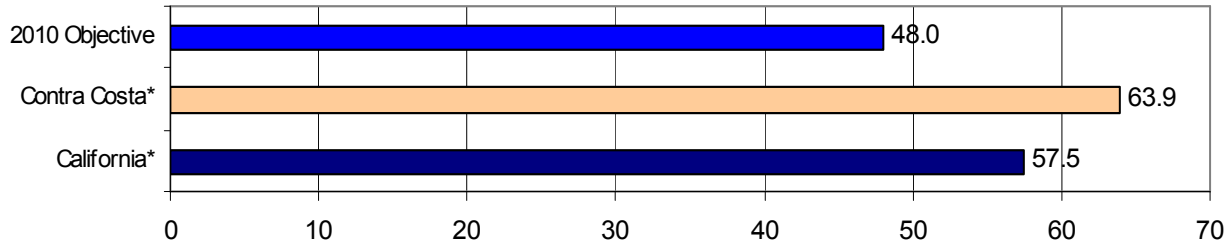
Stroke

Contra Costa has not met the Healthy People 2010 objective of reducing the age-adjusted death rate from stroke to no more than 48.0 deaths per 100,000 residents.

Figure 19. Age-adjusted death rates from stroke per 100,000



[*] Indicates that the age-adjusted death rates for Contra Costa and California are significantly higher than the 2010 Objective. Contra Costa and California statistics were calculated for the three-year period 2000-2002.

Stroke is the third leading cause of death

In Contra Costa, strokes account for 9% of all deaths. Over a three-year period 2000-2002, there were 1,810 Contra Costa residents who died of stroke. This means that approximately 600 Contra Costa residents die from stroke each year.

The age-adjusted death rate from stroke is higher in Contra Costa (63.9 per 100,000) than in California (57.5 per 100,000).

People living in San Pablo, Oakley, Pittsburg and Richmond, as well as African Americans, are more likely to die from stroke compared to the county overall. These differences are not due to the age of the population and are likely due to environmental risk or unhealthy behaviors.

Some communities have higher death rates from stroke

Residents of San Pablo, Oakley, Pittsburg and Richmond are more likely to die from stroke compared to Contra Costa as a whole. It may be that the local numbers are too small to detect statistically significant differences in smaller communities such as Bay Point. For more information, please see table 67, page 140.

Table 67. Stroke deaths in selected communities. Contra Costa, 2000-2002

	Rate	Percent	(Number)
San Pablo	*109.1	4%	(77)
Oakley	*106.7	2%	(34)
Bay Point	93.6	2%	(30)
Pittsburg	*93.1	6%	(113)
Richmond	*83.9	11%	(202)
Antioch	77.4	7%	(133)
Brentwood	75.5	2%	(38)
Pinole	75.1	3%	(46)
Martinez	74.6	4%	(65)
Concord	62.8	11%	(198)
Walnut Creek	61.9	18%	(330)
Contra Costa	**63.9**	**100%**	**(1,810)**

[*] Indicates that the age-adjusted death rate (per 100,000) is significantly higher for people living in these communities compared to Contra Costa as a whole.

A large number of the deaths from stroke occur among people living in Walnut Creek (330, 18%), followed by people living in **Richmond** (202, 11%), **Concord** (198, 11%), Antioch (133, 7%) and Pittsburg (113, 6%).

Too many African American residents die of strokes

There are differences in stroke deaths by race/ethnicity. **African Americans are more likely to die from stroke**, and Asians, Latinos, and Whites are equally likely to die from stroke, compared to Contra Costa as a whole.

Table 68. Stroke deaths by race/ethnicity. Contra Costa, 2000-2002

	Rate	Percent	(Number)
African American	*104.4	11%	(191)
Asian	63.6	8%	(140)
Latino	62.1	6%	(116)
White	60.6	75%	(1,352)
Contra Costa	**63.9**	**100%**	**[1](1,810)**

[*] Indicates that the age-adjusted death rate (per 100,000) is significantly higher among African Americans compared to Contra Costa as a whole.

[1] The Contra Costa total also includes the 11 deaths that occurred among people from other race/ethnic groups such as Native American and Alaska Natives, Native Hawaiians and Pacific Islanders, and people from two or more race groups. Due to small numbers (<20 deaths), rates could not be calculated for these groups.

The majority of deaths from stroke occur among Whites (1,352, 75%), **followed by African Americans** (191, 11%), Asians (140, 8%), and Latinos (116, 6%).

No difference in men's and women's stroke rates

The age-adjusted death rate from stroke is similar among men (68.6 per 100,000), women (60.4 per 100,000), and Contra Costa overall (63.9 per 100,000). Over half of the deaths from stroke occur among women (60%, 1,078.)

Table 69. Stroke deaths by gender. Contra Costa, 2000-2002

	Rate	Percent	(Nnumber)
Men	68.6	40%	(732)
Women	60.4	60%	(1,078)
Contra Costa:	**63.9**	**100%**	**(1,810)**

Stroke death rates are steadily improving

Although the age-adjusted stroke rates have declined throughout the United States, **strokes remain a leading cause of serious, long-term disability**.

A stroke occurs when the blood supply to the brain is cut off (an ischemic stroke) or when a blood vessel bursts (a hemorrhagic stroke). Most strokes are of the ischemic type. Without oxygen, brain cells begin to die. Death or permanent disability can result. Nationally, strokes account for disability of more than one million Americans.

Strokes occur at any age but are **much more common in the elderly**, with the death rate doubling every ten years between the ages of 55 and 85. High blood pressure, smoking and having had a previous stroke or heart attack increase a person's chances of having a stroke. **With timely treatment, the risk of death and disability from stroke can be lowered**. It is very important for people to recognize the symptoms of a stroke and have quick access to medical attention.

Using this data to improve community health

In order to reduce health disparities, it is important to target the groups with the highest age-adjusted death rates from a given cause. For stroke, these are people living in San Pablo, Oakley, Bay Point, Pittsburg and Richmond, and African Americans.

In order to reduce the overall number of deaths in the county, without regard to health disparities, it may be better to target interventions to the group that accounts for the highest percent of deaths from a given cause. For stroke, these are Whites, African Americans, and people living in Walnut Creek, Richmond and Concord.

Because a person's risk for developing or dying from a chronic disease like stroke is cumulative, it is important to target ongoing environmental and behavioral interventions to the young and middle-aged, in addition to older populations. Examples could include strategies to limit youth access to cigarettes, increase community access to fruits and vegetables, teach people how to better manage stress in their lives, or how to recognize the signs and symptoms of a stroke.

Access to quick medical treatment is key to surviving a stroke and reducing any lasting disability. Lack of health insurance, transportation, or sufficient English skills stand in the way of many Contra Costa residents receiving needed stroke prevention services and medical treatment. Providing culturally competent and accessible heath care to all residents will be key to lowering the county's stroke death and disability rates.

Why are age-adjusted rates important?

An age-adjusted rate controls for differences in age and population size. An age-adjusted rate is the best summary statistic for comparing the impact of chronic diseases like stroke that are heavily influenced by age.

For example, the White population is older, and the Latino population is younger than the county as a whole. Without age-adjustment, we would expect to see higher death rates among Whites than among Latinos, and we would expect that these differences would be largely due to age. An age-adjusted rate calculates what the death rates would look like if the White and Latino populations had the same age distribution. The age-adjusted death rate is useful identifying differences that are due to poor access to health care or environmental and behavioral risk factors instead of age. (See the Methods section at the back of this report for more information about using rates.)
The differences highlighted above are statistically significant. This means that we are 95% certain that these differences are not due to chance.

How to calculate the percentage and number of deaths

Percentages describe the proportion of countywide deaths from stroke that occur within a particular community, race/ethnic group or gender. The percent is calculated by dividing the number of deaths that occur within a specific community, race/ethnic group or gender by the total number of deaths countywide and multiplying that number by 100.

Numbers show the actual number of deaths from each cause over a three-year period. The number of deaths per year can be calculated by dividing the total number of deaths from 2000-2002, as shown in the tables, by three.

Confidence intervals are available
You may download and view all detailed tables with 95% confidence intervals, at…
http://cchealth.org/health_data/hospital_council/

Data sources

Mortality data from the California Department of Health Services (CDHS), http://www.dhs.ca.gov/, Center for Health Statistics' Death Statistical Master File, 2000-2002. Any analyses, interpretations, or conclusions of the data have been reached by CHAPE and are not from the CDHS.

Population data from the California Department of Finance, Race/Ethnic Population with Age and Sex Detail, 2000-2050, and E-4 Population Estimates for Cities, Counties, and the State, 2001-2004, with DRU Benchmark, available online at: http://www.dof.ca.gov/HTML/DEMOGRAP/Druhpar.htm. Sacramento, California, May 2004.

Note: City-level denominators were extrapolated from the E-4 file to approximate the mid-year city-level population estimates that are needed to calculate city-level rates. For more information, please see our section on statistical methods.

ICD10 coding for cerebrovascular disease (ICD I60-I69) from the Centers for Disease Control and Prevention National Center for Health Statistics, available online at: http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_16.pdf.

Healthy People 2010 objectives from the US Department of Health and Human Services' Office of Disease Prevention and Health Promotion, available online at http://www.healthypeople.gov/.

National trends and background from the Centers for Disease Control and Prevention National Center for Health Statistics, available online at: http://www.cdc.gov/cvh/library/fs_strokesigns.htm