## G-iii. CHRONIC DI SEASE (HEART DISEASE)

| Importance | Heart disease is the leading cause of death for both men and women in the United States. ${ }^{1}$ Half the deaths due to heart disease in 2006 were in women. ${ }^{1}$ In $2006,631,636$ people died of heart disease in the United States (more than one in every four deaths). ${ }^{1}$ In 2009, an estimated 785,000 Americans had a first heart attack, with an average of 1 death every 37 seconds. ${ }^{1,2}$ In 2010, heart disease will cost the United States $\$ 316.4$ billion; this total includes the cost of health care services, medications, and loss of productivity. ${ }^{2}$ |
| :---: | :---: |
| Highlights | - About 12 million people in the United States have coronary heart disease. ${ }^{3}$ <br> - According to 2006 mortality data, nearly 2300 Americans die of cardiovascular disease each day. ${ }^{2}$ <br> - Among an estimated 45 million people with functional disabilities in the United States, heart disease, stroke, and hypertension are among the leading conditions that caused those disabilities. ${ }^{2}$ <br> - Santa Cruz County ranked $23^{\text {rd }}$ among all California counties for age-adjusted death rate due to coronary heart disease. ${ }^{4}$ <br> - Forty-six California counties and the state of California met the Healthy People 2010 National Objective. ${ }^{4}$ |
| Definitions | Heart Disease: Heart disease includes a number of different diseases that affect the heart and circulatory system. Common types of heart diseases include angina and heart attack (also known as acute myocardial infarction or acute coronary syndrome); sudden cardiac arrest; arrhythmias such as atrial fibrillation; coronary artery disease (including atherosclerosis); cardiomyopathy; congenital heart defects; and heart failure. Coronary heart disease (CHD) accounts for the largest proportion of heart disease. ${ }^{3}$ <br> Coronary Heart Disease (CHD): A condition in which the flow of blood to the heart muscle is reduced. When the coronary arteries become narrowed or clogged, they cannot supply enough blood to the heart. ${ }^{3}$ |
| Healthy People 2010 Objective ${ }^{5}$ | "Improve cardiovascular health and quality of life through prevention, detection, and treatment of risk factors." <br> - Reduce coronary heart disease deaths (Target: 166 deaths per 100,000 population) <br> - Reduce the proportion of adults with high blood pressure (Target:16\%) <br> - Reduce the proportion of adults with high total blood cholesterol levels (Target: 17\%) |

Major cardiovascular diseases include diseases of the heart, hypertension and renal disease, and cerebrovascular diseases. ${ }^{6}$ For all categories of major cardiovascular disease deaths, males had higher age-adjusted death rates than females (see Figure VGiii-1). ${ }^{6}$ The death rate from major cardiovascular diseases is $42 \%$ higher for males than females. ${ }^{6}$ The death rate from diseases of the heart is $54 \%$ higher for males than females. ${ }^{6}$ The death rate for coronary heart disease is $69 \%$ higher for males than females. ${ }^{6}$


## HEART DISEASE (CONT.)

Figure VGiii-2 describes the heart disease trend from 2001-2007. Although cardiovascular disease (CVD) rates are declining, CVD is still the number 1 cause of death in the United States, and risk factor control remains a challenge for many Americans; the prevalence of many risk factors is holding steady or increasing. ${ }^{7}$ Overweight and obesity, in both adults and children, have been rising for several decades. ${ }^{7}$ Smoking, which raises the coronary heart disease death rate two to three times, clearly still remains the number one cause of death. ${ }^{7}$ More than 46 million U.S. adults are daily smokers, and about 4,000 people ages 12-17 begin smoking every day. ${ }^{7}$ Based on 1984-2004

Figure VGiii-2: Heart Disease Prevalence, Santa Cruz County and California, 2001-2007 ${ }^{8}$
 National Health and Nutrition Examination Surveys, it is projected that diabetes prevalence will more than double from 2005-2050 (at least 65\% of people with diabetes die from some type of cardiovascular disease). ${ }^{7}$
U.S. hospitals in 2002-2004 showed improvements in clinical outcomes and in the number of patients receiving counseling at discharge, smoking cessation counseling, and medication counseling. ${ }^{7}$ While the quality of hospital care for patients with cardiovascular disease appears to be improving, the cost associated with CVD has increased over $\$ 16$ billion from 2007. Cardiovascular disease, the leading cause of disability and death in the United States, is highly preventable and very treatable - if people make themselves aware of their modifiable risk factors. ${ }^{7}$

Figure VGiii-3 depicts a 19.4\% decline in California's overall heart disease mortality rate from 2000 through 2004. ${ }^{3}$ Although men's rates are about $50 \%$ higher than women's, men and women experienced similar percentage improvements $-19.8 \%$ for men and $19.5 \%$ for women. ${ }^{3}$ California's overall heart disease mortality rate was 155.2 deaths per 100,000 for 2004. ${ }^{3}$ The counties in California with the highest rates of heart disease are located in the southeastern part of the state; Tulare, Kern, San Bernardino, and Riverside. The central coast and the San Francisco Bay area have relatively low rates of heart disease mortality. ${ }^{3}$


## HEART DISEASE (CONT.)

Table VGiii-1 shows the percentages of California deaths that were due to heart disease, by race/ethnicity. Heart disease mortality rates improved among all race/ethnicity groups from 2000 through 2004 (data not shown). ${ }^{3}$ The decrease was greatest among American Indians (28.4\%) and African-Americans (22.2\%), while Latino rates dropped just 3.6\%. Despite the substantial improvement for African-Americans, mortality rates in this group nonetheless remain considerably higher than those of the other racial/ethnic groups.

Table VGiii-2 illustrates the modifiable risk factors for the development of heart disease and the percentage of United States adults with these risk factors. For people without heart disease, studies have shown that lowering cholesterol and blood pressure, maintaining a healthy weight, managing or preventing diabetes, eliminating smoking, and increasing physical activity can reduce the risk of developing heart disease. ${ }^{10,11}$ In 2003, approximately $37 \%$ of United States adults reported having two

| Table VGiii-1: Percentage of Deaths that were due <br> to Heart Disease, by Race/Ethnicity ${ }^{10}$ |  |
| ---: | :---: |
| Race of Ethnic Group | \% of Deaths |
| African Americans | 25.8 |
| American Indians or <br> Alaska Natives | 19.8 |
| Asians or Pacific Islanders | 24.6 |
| Hispanics | 22.7 |
| Whites | 27.5 |

Table VGiii-2: Percentage of Adults in the United States with Heart Disease Risk Factors ${ }^{3}$

| Risk Factors | $\%$ |
| ---: | :---: |
| Inactivity | 39.5 |
| Obesity | 33.9 |
| High Blood Pressure | 30.5 |
| Cigarette Smoking | 20.8 |
| High Cholesterol | 15.6 |
| Diabetes | 10.1 | or more of the risk factors listed in tableVGiii-2. ${ }^{11}$

- National Heart Lung and Blood Institute:

Helpful Websites

- Centers for Disease Control and Prevention: http://www.cdc.gov/heartdisease/facts.htm
- American Heart Association: http://www.heart.org/HEARTORG/

1. Heron MP, Hoyert DL, Murphy SL, Xu JQ, Kochanek KD, Tejada-Vera B. "Deaths: Final data for 2006." National Vital Statistics Reports. 2009;57(14). Hyattsville, MD: National Center for Health Statistics.
2. Lloyd-Jones D, Adams RJ, Brown TM, et al. "Heart Disease and Stroke Statistics-2010 Update. A Report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee."国 Circulation. 2010;121:e1-e170.
3. Reynen DJ, Kamigaki AS, Pheatt N, Chaput LA. The Burden of Cardiovascular Disease in California: A Report of the California Heart Disease and Stroke Prevention Program. Sacramento, CA: California Department of Public Health.
4. California Department of Public Health: 2006-2008 Death Statistical Master Files.
5. U.S. Department of Health and Human Services. Healthy People 2010. Washington, DC: U.S. Government

## Sources

 Printing Office. 2nd ed. 2000.6. Miniño AM, Klein RJ. Health mortality from major cardiovascular diseases: United States, 2007. Health EStats. National Center for Health Statistics. March 2010.
7. American Heart Association. 2007. "Cardiovascular Disease Death Rates Decline, But Risk Factors Still Exact Heavy Toll." Science Daily.
8. California Health Interview Survey (CHIS) 2007.
9. State of California, Department of Health and Human Services, Death Records. 2004.
10. U.S. Department of Health and Human Services, National Institutes of Health, National Heart Lung and Blood Institute. http://www.nhlbi.nih.gov/health/dci/Diseases/hd/hd risk.html.
11. Centers for Disease Control and Prevention (CDC). http://www.cdc.gov/heartdisease/facts.htm.
