

HEART DISEASE AND STROKE — OVERVIEW

Heart Disease

Heart disease is a term used to describe a number of different diseases that can affect the heart. Following are descriptions of the most common types of heart diseases (AHA 2007):

- Cardiovascular disease is a term used to describe a number of diseases that affect the heart itself and/or the vascular system, especially the veins and arteries leading to and from the heart.
- Coronary heart or artery disease is caused by a buildup of fatty deposits within the walls of the arteries, which disrupts the flow of blood to the myocardium.
- Heart failure results when the heart loses its ability to pump blood throughout the body.
- Congenital heart disease is caused by unavoidable genetic factors at birth.
- Hypertensive heart disease is a complication of high blood pressure that affects the heart.
- Inflammatory heart disease involves an inflammation of the heart muscle and/or the tissue surrounding it.
- Valvular heart disease relates to conditions affecting any one or more of the four valves of the heart.

Stroke

A stroke, also referred to as a cerebrovascular accident or CVA, occurs when the blood supply to the brain is interrupted or severely reduced, depriving the brain tissue of oxygen. The result may be abnormal brain function due to the death of brain tissue.

There are two primary causes of a stroke (AHA 2007):

- Blockage of an artery in the brain is the most common cause of stroke and can be caused by a blood clot, a carotid artery occlusion or an embolism from the heart or an artery.
- Rupture of an artery (cerebral hemorrhage), which is bleeding within the brain or around the brain (subarachnoid hemorrhage).

In 2004, stroke was the third leading cause of death in the U.S., accounting for 17% of all deaths. Only diseases of the heart and cancer cause more deaths (CDC 2006). Only about 50% of stroke deaths in 2003 occurred in a hospital (AHA 2007).

Who is most impacted — coronary heart disease

Between 2000 and 2004, the mortality rate related to coronary heart disease among North Inland region residents decreased from 163.2 to 134.1 per 100,000 population, a 17.8% decrease.

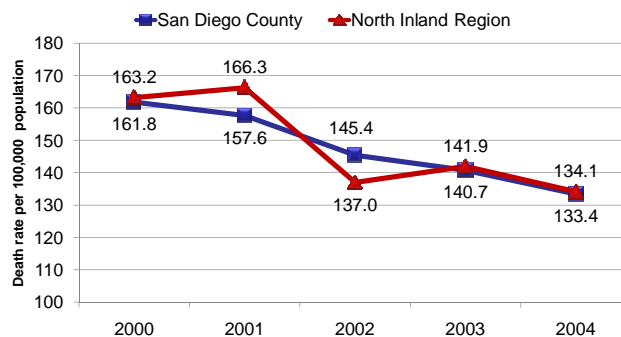
Mortality

- Males—had a 14.9% higher mortality rate in 2004 than females, 113.6 and 125.0 deaths per 100,000 population, respectively.
- Whites —had a 51.2% higher mortality rate in 2004 than the overall North Inland region rate, 202.1 and 134.1 deaths per 100,000 population, respectively.

Hospital Utilization

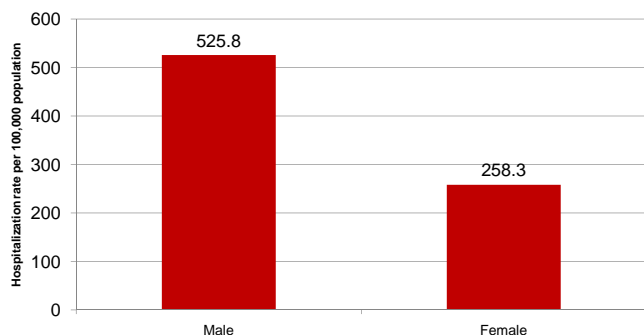
- In 2005, males had more than twice the hospitalization rate than females, 525.8 and 258.3 hospitalization per 100,000 population, respectively.
- In 2005, whites had more than twice the hospitalization rate related to coronary heart disease than other racial or ethnic groups.

Coronary Heart Disease Mortality
San Diego and North Inland Region, 2000 - 2004



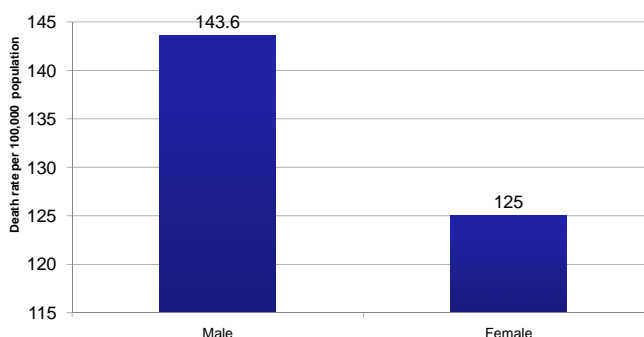
Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, Community Epidemiology; SANDAG, Current Population Estimates, 9/27/2006. Data prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 12/12/2006.

Coronary Heart Disease Hospitalization Rate
By Gender, North Inland Region, 2005



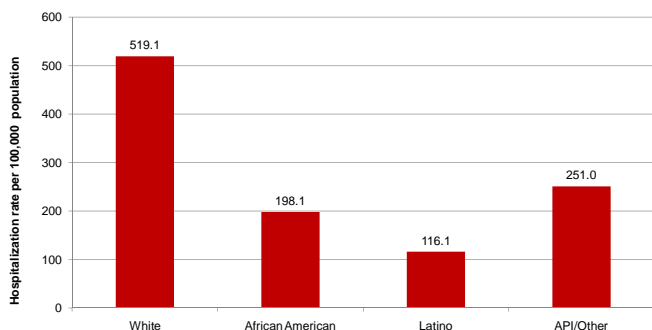
Source: Hospital Discharge Data, (CA OSHPD), CoSD, HHSA, Community Epidemiology; SANDAG, Current Population Estimates, 9/27/2006. Data prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 12/12/2006.

Coronary Heart Disease Mortality
By Gender, North Inland Region, 2004



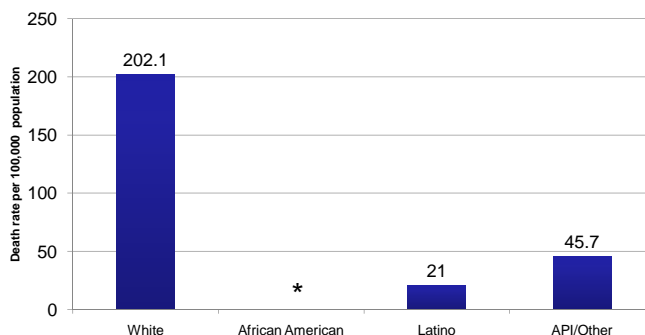
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Coronary Heart Disease Hospitalization Rate
By Race/Ethnicity, North Inland Region, 2005



Source: Hospital Discharge Data, (CA OSHPD), CoSD, HHSA, Community Epidemiology; SANDAG, Current Population Estimates, 9/27/2006. Data prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 12/12/2006.

Coronary Heart Disease Mortality
By Race/Ethnicity, North Inland Region, 2004



Source: Death Statistical Master Files (CA DPH), CoSD, HHSA, Community Epidemiology; SANDAG, Current Population Estimates, 9/27/2006. Data prepared by County of San Diego (CoSD), Health & Human Services Agency (HHSA), Community Health Statistics, 12/12/2006.

* Rates not calculated for fewer than 5 cases.

Who is most impacted — stroke

Between 2000 and 2004, the mortality rate related to stroke among North Inland region residents decreased from 68.2 to 52.3 per 100,000 population, a 23.3% decrease.

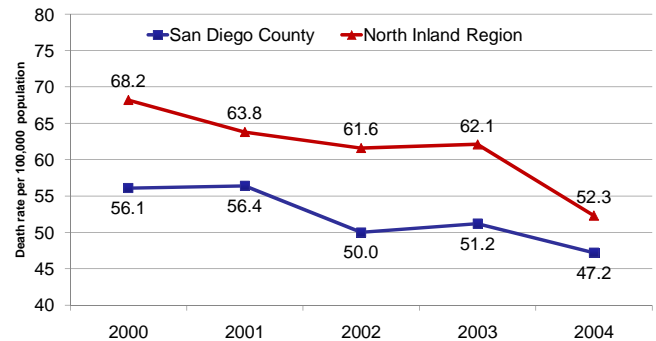
Mortality

- In 2004, females had a 41.4% higher mortality rate than males, 61.1 and 43.2 deaths per 100,000 population, respectively.
- Whites had a 46.1% higher mortality rate in 2004 than the overall North Inland region rate, 76.4 and 52.3 deaths per 100,000 population, respectively.

Hospital Utilization

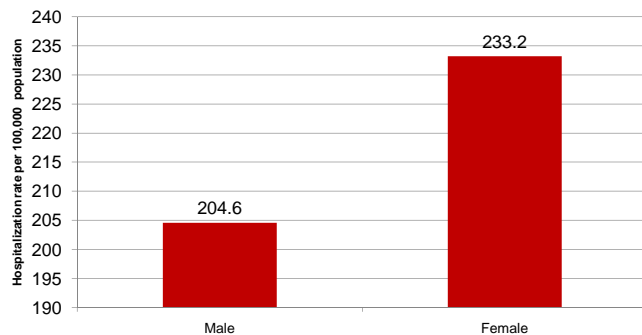
- In 2005, females had a 14.0% higher hospitalization rate than males, 233.2 and 204.6 hospitalizations per 100,000 population, respectively.
- In 2005, whites had a higher hospitalization rate related to stroke than other racial or ethnic groups.

Stroke Mortality San Diego and North Inland Region, 2000 - 2004



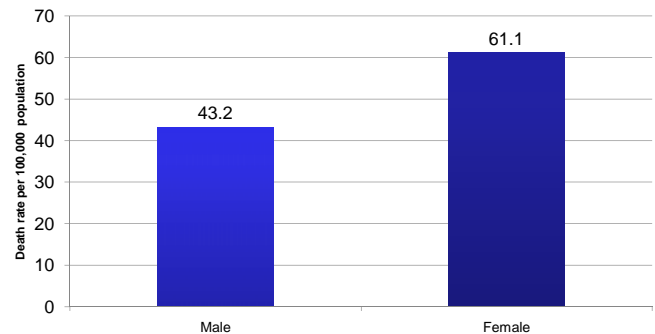
Source: Death Statistical Master Files (CA DPH), CoSD, HHS, Community Epidemiology; SANDAG, Current Population Estimates, 9/27/2006. Data prepared by County of San Diego (CoSD), Health & Human Services Agency (HHS), Community Health Statistics, 12/12/2006.
CDC NVSR 2000-2004

Stroke Hospitalization By Gender, North Inland Region, 2005



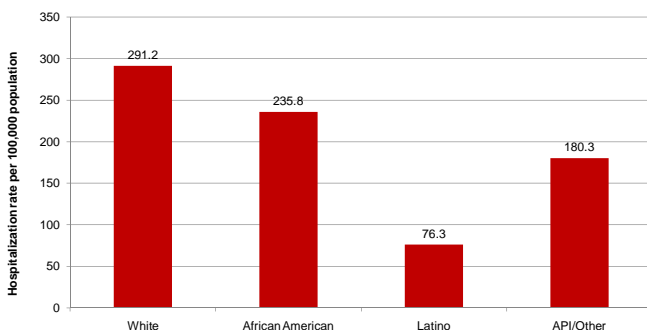
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Stroke Mortality By Gender, North Inland Region, 2004



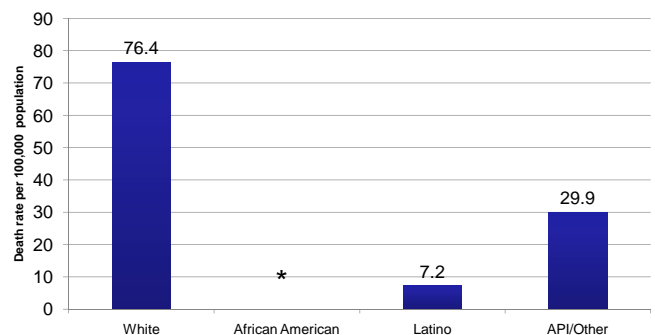
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Stroke Hospitalization By Race/Ethnicity, North Inland Region, 2005



Source: Hospital Discharge Data, (CA OSHPD), CoSD, HHS, Community Epidemiology; SANDAG, Current Population Estimates, 9/27/2006. Data prepared by County of San Diego (CoSD), Health & Human Services Agency (HHS), Community Health Statistics, 12/12/2006.

Stroke Mortality By Race/Ethnicity, North Inland Region, 2004



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