

# CHRONIC AND DISABLING CONDITIONS

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# CHRONIC AND DISABLING CONDITIONS\*

◆ *Diabetes*    ◆ *Asthma*

## Background

A chronic disease is a prolonged illness that is recurring and seldom cured.<sup>1</sup>

The most common chronic conditions responsible for disabilities for adults are arthritis, heart disease, back conditions, lower extremity impairments and intervertebral disc disorders. Other chronic conditions include diabetes, cancer, hearing or visual impairments and Alzheimer's Disease.<sup>1</sup>

The most common chronic conditions for youth under 18 years of age are asthma, mental retardation, mental illness and learning disabilities.<sup>1</sup> Learning disabilities include developmental speech and language disorders, academic skill and attention disorders, and coordination disorders and learning handicaps.<sup>2</sup>

## Size

### *San Diego County*

One-third of women and one-fourth of men surveyed in San Diego in 1996 reported excellent health.<sup>5</sup> **(Fig. 1)**

Asian/PI and Hispanics were less likely to report overall excellent health. Native Americans were the most likely to report excellent health.<sup>5</sup>

African Americans were the most likely to report excellent health from ages 18 – 24 (40%) but least likely after age 65 (8%).<sup>5</sup> **(Fig. 2)**

### *National*

Over 90 million Americans (about 33% of the US population) live with a chronic disease.<sup>1</sup>

At least 10% of Americans have a disability, which is a limitation of the ability to perform major activities caused by chronic health conditions and impairments.<sup>5</sup>

#### **Children and Adolescents**

Seven percent of children age 5 – 17 are physically limited by a chronic condition.<sup>6</sup>

At least one in five children and adolescents may have a diagnosable mental, emotional, or behavioral problem that can lead to school failure, alcohol or other drug use, violence, or suicide. Early onset mental disorders have been found to be strongly associated with reduced educational attainment.<sup>7</sup>

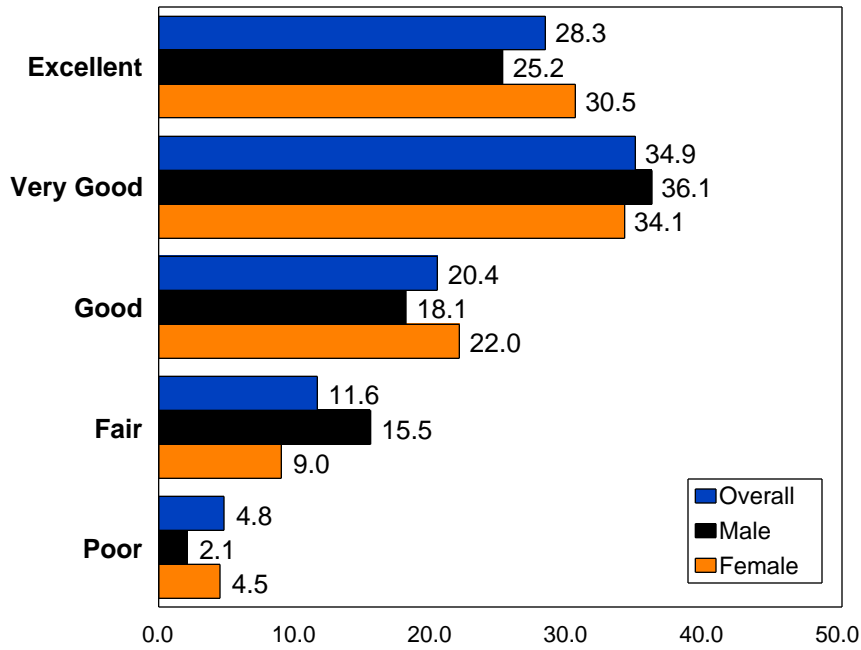
Nine to thirteen percent (3.5 to 4 million) of youth age 9 to 17 years experience a serious emotional disturbance (SED) that imposes substantial functional impairment in daily living, school, family, and community activities.<sup>7</sup>

Nearly four million school-age children have learning disabilities. Of these, at least 20% have a type of disorder that leaves them unable to focus their attention.<sup>2</sup>

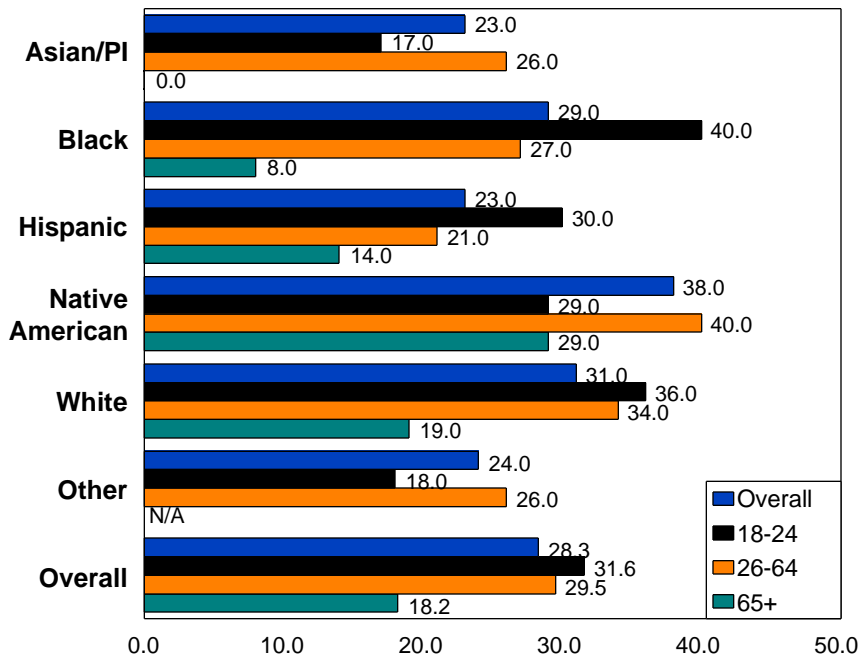
Attention deficit disorder is one of the most common mental disorders among children. It affects 3 to 5 percent of all children, perhaps as many as two million American children. On the average, at least one child in every classroom in the US needs help for attention deficit disorder.<sup>2</sup>

\* *Cardiovascular Diseases and Cancer are highlighted in separate Health Issue Briefs.*

**Figure 1**  
**Assessment of Overall Health Status by Gender**  
**San Diego County 1997\*,4**



**Figure 2**  
**Assessment of Overall Health as Excellent**  
**by Race/Ethnicity 1997\*,4**



\*Based upon self-report

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### **Arthritis**

In 1994, over 33 million Americans had arthritis with 27.5 million being over the age of 45.<sup>5</sup>

Arthritis affects more than 15% of the US population (over 40 million Americans), more than 20 percent of the adult population, and 50 percent of persons age 65 and older, making it one of the most prevalent conditions and the leading cause of disability in the US.<sup>7</sup>

### **Low Back Pain**

The annual incidence of low back pain is 5 to 14 percent and the lifetime reported prevalence ranges from 60 to 90 percent. Low back pain disables 5.4 million Americans each year.<sup>7</sup>

### **Alzheimer's**

Five to six percent of older people, approximately 3 to 4 million Americans, have Alzheimer's disease or a related dementia.<sup>2</sup>

Research indicates that 1 percent of the population aged 65-74 has severe dementia, increasing to 7 percent of those aged 75-84, and 25 percent of those 85 or older.<sup>2</sup>

At least half of the people in US nursing homes have Alzheimer's disease or a related disorder.<sup>2</sup>

Alzheimer's disease is thought to be responsible for 60 to 70% of all cases of dementia and one of the leading causes of nursing home placements.<sup>7</sup>

## **Seriousness**

**Years of Productive Life Lost:** Chronic diseases account for one third of the years of productive life lost before the age of 65.<sup>1</sup>

Seventy percent of all deaths in the US are attributed to a chronic disease, including cardiovascular diseases and cancer.<sup>1</sup>

Sixty percent of the nation's medical costs are spent on chronic ailments.<sup>1</sup>

### **Alzheimer's**

In 1996, there were 21,166 deaths in the United States from Alzheimer's Disease – an age adjusted death rate of 3 deaths per 100,000 population.<sup>5</sup>

In 1996, Alzheimer's Disease ranked as the 14<sup>th</sup> cause of deaths for all age groups and the 9<sup>th</sup> cause of death for Americans age 65 and over.<sup>5</sup>

In 1985, the annual cost of caring for individuals with Alzheimer's disease and related dementias in institutional and community settings was estimated between \$24 billion and \$48 billion for direct costs alone.<sup>2</sup>

### **Low Back Pain**

Low back pain costs at least \$16 billion each year in the US.<sup>7</sup>

## **Community Concerns**

### **Focus Group Discussion Points:**

- ◀ The South San Diego County group ranked chronic disease among their primary priorities. This group felt that they needed proper education and care.
- ◀ The African American and Senior groups both felt that chronic diseases are prevalent in their communities but they are not receiving the necessary care.

## Risk Factors

Risk factors for adult chronic conditions include:<sup>7</sup>

- ◀ Smoking and substance abuse
- ◀ Weight, diet, and physical inactivity
- ◀ Race/Ethnicity

Risk factors for Alzheimer's disease include:<sup>2</sup>

- ◀ Increased age – 25% of people over 85 suffer from Alzheimer's or other severe dementia
- ◀ Genetics or inherited factors
- ◀ Biochemistry

People who are overweight and people who frequently bend over or lift heavy objects are more likely to report **low back injuries**.<sup>7</sup>

Risk factors for learning disabilities include:<sup>2</sup>

- ◀ Brain development and genetics
- ◀ Tobacco, alcohol, and other drug use
- ◀ Complications during pregnancy or delivery
- ◀ Toxins in the child's environment

## High Risk Populations

**Age(s):** Seniors

**Ethnicity(s):** Not Available

**County Areas:** Not Available

Two to three time more boys than girls are affected by attention deficit disorder.<sup>2</sup>

Arthritis is more prevalent among women than among men.<sup>5</sup>

## Prevention

Prevention recommendations for chronic conditions include:<sup>1</sup>

- ◀ Increasing physical activity
- ◀ Improving diet
- ◀ Smoking cessation

Interventions to prevent low back injury include education, physical conditioning, weight loss, and/or task or environmental redesign.<sup>7</sup>

## Resources

### ***Local***

San Diego Regional Center for the Developmentally Disabled, (619) 576-2996

Autism Society, (619) 281-7165

Down Syndrome Association, (619) 670-4494

United Cerebral Palsy Association, (619) 571-7803

Easter Seal Society, (619) 541-0991

### ***National***

National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, [www.cdc.gov/nccdphp](http://www.cdc.gov/nccdphp)

### ***Older Adults***

Alzheimer's Association, (619) 537-5040, [www.alz.org](http://www.alz.org)

Alzheimer's Family Center, (619) 543-4700

Arthritis Foundation, (619) 492-1090, [www.arthritis.org](http://www.arthritis.org)

National Institute on Aging, National Institutes of Health, [www.nih.gov/nia](http://www.nih.gov/nia)

National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, [www.nih.gov/niams](http://www.nih.gov/niams)

### ***Children/Youth***

San Diego Center for Children, (619) 277-9550

Exceptional Family Resource Center, (619) 268-8252

Children's Hospital and Health Center, Outpatient Psychiatry, (619) 576-5832

Mental Health Services, Children and Adolescents, (619) 221-8672

California Children's Services, (619) 560-3400

San Diego Unified School District, Special Education, (619) 293-8686

Office of Education, Special Education, (619) 292-3500

American Academy of Child and Adolescent Psychiatry, [www.aacap.org](http://www.aacap.org)

American Academy of Pediatrics, [www.aap.org](http://www.aap.org)

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3. California Department of Health Services. (1996). Behavioral Risk Factor Survey. Sacramento, CA.
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# DIABETES

## Background

Diabetes is a chronic illness in which the body cannot produce or properly use insulin, a hormone needed to convert sugar into energy. Diabetes is a disorder of metabolism—the way the body digests food for energy and growth.<sup>1</sup>

Approximately 5-10% of individuals with diabetes have **Type I** diabetes, also known as insulin-dependent diabetes mellitus or juvenile-onset diabetes. The other 90-95% have **Type II** diabetes which is non-insulin dependent or adult-onset diabetes. **Gestational diabetes** develops in 2-5% of all pregnancies but disappears when the pregnancy is over.<sup>2</sup>

## Size

### *San Diego County*

In San Diego County, it is estimated that 84,000 or 4.3% of the county's adult population have been diagnosed with diabetes.<sup>3</sup> Of these, it is estimated that 5-10% have type 1 diabetes and 90-95% have type 2 diabetes. An estimated 1,170 of San Diego's children and youth under age 18 have diabetes.<sup>3</sup> **(Fig. 1)**

In 1995, there were 370 deaths directly due to diabetes in San Diego County, plus many more deaths for which diabetes was a contributing cause.<sup>3</sup>

**County Rates and Trends:** Not Available

### *National*

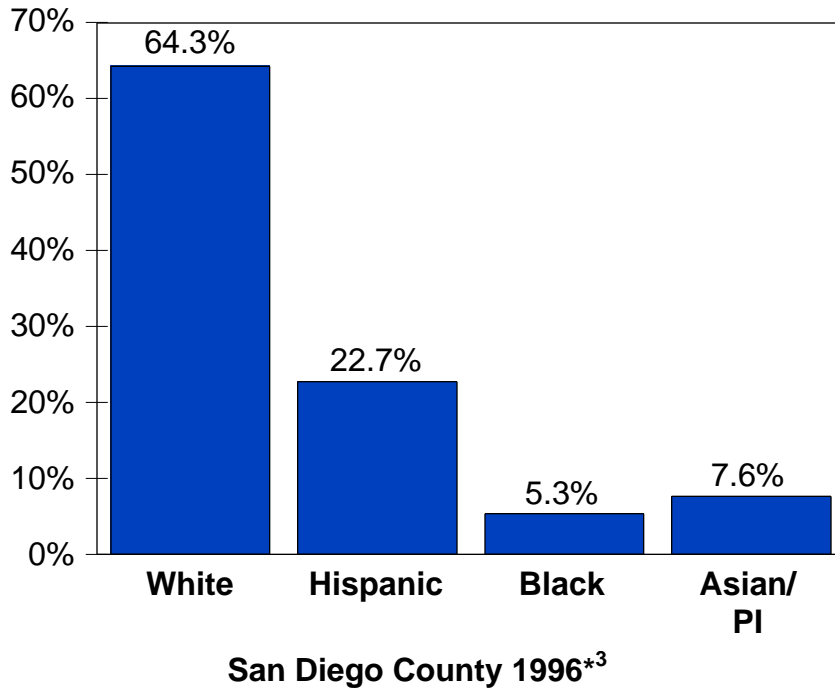
Diabetes is the seventh leading cause of death in the US.<sup>4</sup>

Six percent or 15.7 million people in the US have diabetes. Approximately 90-95% (14.9 million) have type 2 diabetes. While an estimated 10.3 million have been diagnosed with diabetes, unfortunately, 5.4 million people are not aware that they have the disease.<sup>2</sup>

Each day approximately 2,200 people are diagnosed with diabetes. About 798,000 people will be diagnosed this year.<sup>2</sup> Approximately one half of all diagnosed cases of diabetes are among persons over the age of 65.<sup>2</sup>

Although diabetes occurs most often in older adults, it is one of the most common chronic disorders in children in the United States. About 127,000 children and teenagers age 19 and younger have diabetes.<sup>1</sup>

**Figure 1**  
**Estimated Diagnosed Diabetes by Race/Ethnicity,**



**Table 1**  
**San Diego vs. the Nation: Estimated\* Diabetes Prevalence<sup>3</sup>**

San Diego County 1996	County Trends	California	National	HP2000 Objective
4.3%	Not Available	4.4%	5.9%	2.5%

\* Based on adult self-report

## Seriousness

**Years of Productive Life Lost:** Not Available

**Healthy People Objective 2000:** The San Diego County prevalence of diabetes (4.3% of the population) is higher than the Healthy People 2000 objective (2.5%).<sup>3</sup>

In 1996, there were 61,767 deaths from diabetes in the US – an age adjusted death rate of 13.6 deaths per 100,000 population.<sup>4</sup>

In 1996, there were 503,000 hospital discharges and 18.9 million ambulatory care visits from diabetes. (See **Table 2** for San Diego County information.) The average length of a hospital stay for diabetes was 6.3 days.<sup>4</sup>

Diabetes is the seventh leading cause of death in the United States and contributed to more than 187,000 deaths in 1995.<sup>2</sup>

Compared to persons without diabetes, diabetic patients have a higher hospitalization rate, longer hospital stays, and increased ambulatory care visits.<sup>5</sup>

Health care and other costs directly related to diabetes treatment, as well as the costs of lost productivity, run \$92 billion annually. Some estimates run as high as \$138 billion which includes **all** health care costs incurred by people with diabetes.<sup>2</sup>

Diabetes is the leading cause of blindness in adults ages 20-74 and accounts for over 8,000 new cases of blindness each year.

Infants born of diabetic women are at increased risk of fetal malformation, prematurity, spontaneous abortion, macrosomia, and metabolic derangements.

People with diabetes experience mortality rates 2 to 4 times greater than nondiabetic persons, especially from cardiovascular disease.<sup>6</sup>

**The American Diabetes Association reports that:**<sup>2</sup>

Diabetes can cause:

- ◀ School and work absenteeism
- ◀ Increased hospitalization
- ◀ Frequent emergency room visits
- ◀ Permanent physical disabilities

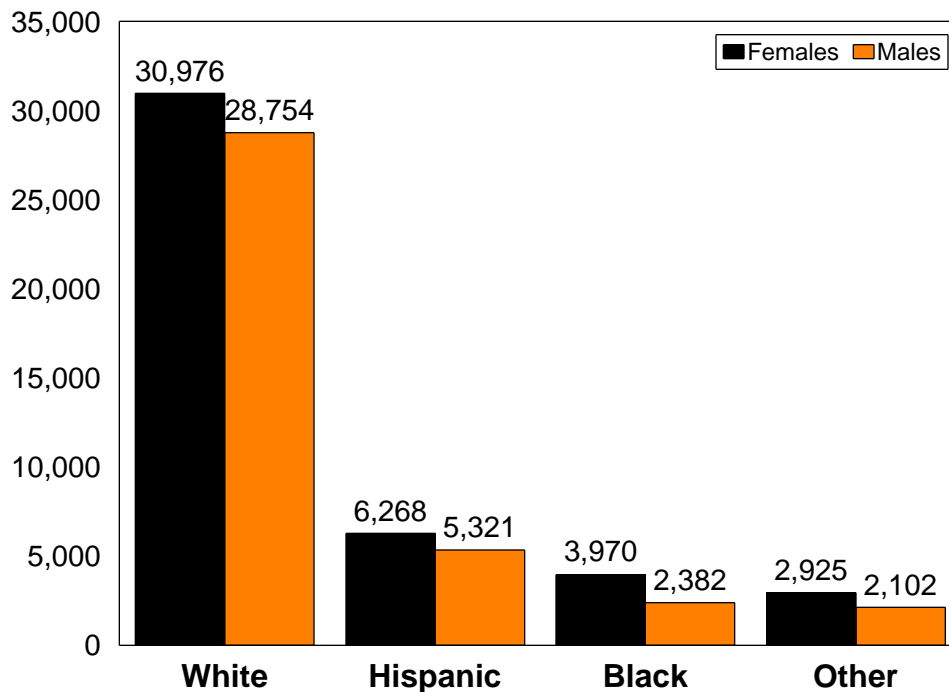
Diabetes can cause health problems leading to:

- ◀ Vision impairments including glaucoma and blindness
- ◀ Kidney disease
- ◀ Nerve disease
- ◀ Amputation
- ◀ Heart disease and stroke

**Table 2**  
**Estimated\* Diagnosed Diabetes by Race/Ethnicity and Age,**  
**San Diego County, 1996<sup>3</sup>**

		Females				Males			
		All Ages	18-34	35-54	55+	All Ages	18-34	35-54	55+
<b>All Races</b>	84,300	49,100	8,200	13,700	27,200	35,200	3,800	10,200	21,200
<b>White</b>	54,200	29,900	4,400	7,500	18,000	24,300	2,500	6,000	15,800
<b>Hispanic</b>	19,100	12,500	2,500	4,100	5,900	6,600	500	3,200	2,800
<b>Black</b>	4,500	3,200	700	1,100	1,400	1,300	n.a.	400	900
<b>API/Other</b>	6,400	3,500	600	900	1,900	3,000	800	600	1,600

**Figure 2**  
**Diabetes-Related Hospital Discharges by Race/Ethnicity and Gender,**  
**1988-1992, San Diego County<sup>3</sup>**



\* Based on adult self-report

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## Community Concerns

### Focus Group Discussion Points:

- ◀ African Americans report lack of awareness in the community about problems associated with diabetes.
- ◀ Diabetes was a major concern for Latinos and African Americans and the Asian/PI group.
- ◀ Latinos said they did not have educational programs to teach them about diabetes.
- ◀ All groups reported poor continuity of care.

## Risk Factors

Risk factors for diabetes include:<sup>2,6</sup>

- ◀ Family history and genetics
- ◀ Overweight
- ◀ Sedentary lifestyle
- ◀ Poor diet
- ◀ Being over the age of 45
- ◀ High cholesterol
- ◀ Ethnicity
- ◀ Culture/Community Traditions
- ◀ Social/Economic Factors

## High Risk Populations

### Age(s): Seniors

- ◀ 18.4% of all senior persons have diabetes. Seniors who suffer from the disease are twice as likely to be hospitalized for a kidney infection.<sup>2</sup>

### Ethnicity(s): People of color.<sup>2</sup>

- ◀ Nationally, 12.2% of Native Americans, 10.8% of African Americans and 10.6% of Hispanic Americans have diabetes compared to 5.9% of Americans overall

### Gender: Women<sup>3</sup>

**County Areas:** Not Available

For Type 1 diabetes:<sup>2</sup>

- ◀ Siblings of people with type 1 diabetes
- ◀ Children of parents with type 1 diabetes

For Type 2 diabetes:<sup>2</sup>

- ◀ People over age 45
- ◀ People with a family history of diabetes
- ◀ People who are overweight
- ◀ People who do not exercise regularly
- ◀ People with low HDL or high triglycerides
- ◀ Certain racial and ethnic groups (e.g., African Americans, Hispanic Americans, Asian & Pacific Islanders, and Native Americans)
- ◀ Women who had gestational diabetes, a form of diabetes occurring in 2-5 percent of all pregnancies or who have had a baby weighing 9 pounds or more at birth.

**Prevention**

Diabetes can be controlled with medication and lifestyle changes (e.g., exercise and healthy diet).<sup>1</sup>

It may be possible to prevent or delay the onset of type 2 diabetes by reducing lifestyle risk factors through weight loss and increased physical activity.<sup>2</sup>

Interventions that are inexpensive and safe including exercise, prudent diet, and weight loss.<sup>5</sup>

**Model Programs**

***Project Dulce, Community Diabetes Care Program, Scripps Whittier Institute for Diabetes, San Diego, California<sup>8</sup>***

- ◀ Goal of the program is to improve the quality of life among low-income persons with diabetes
- ◀ Specifically focuses on Latino, African-American, and Asian-American populations
- ◀ Proactively addresses the cultural, behavioral, and health system barriers to optimum diabetes management
- ◀ Program components include self management education programs, community outreach programs, and intensive one on one case management

***State Diabetes Control Programs include:<sup>7</sup>***

- ◀ The Maine Diabetes Control Program arranged a diabetes outpatient education program in more than 30 hospitals and health centers throughout the state. In a 3-year period, this state education program resulted in a 32% reduction in hospital admissions related to diabetes—a savings of \$300 per participant.

- ◀ The Michigan Diabetes Control Program's Upper Peninsula Diabetes Outreach Network established a diabetes care and education program with hospitals, health departments, and home care agencies. Participants in the program experienced a 45% lower rate of hospitalizations, a 31% lower rate of lower-extremity amputations, and a 27% lower death rate than nonparticipants. This program has been replicated in five new outreach networks throughout the state.
- ◀ The Oregon Diabetes Control Program helped improve the delivery of preventive care by developing measurements that describe both the care provided to people with diabetes and their health status. These measures match those in Oregon's Population-Based Guidelines for Diabetes Mellitus. The specifications are available for use by managed care organizations that are ready to develop reporting systems that describe the organization's diabetic population and the services provided to these people.

## Resources

American Diabetes Association, (619) 234-9897, [www.diabetes.org](http://www.diabetes.org)

Juvenile Diabetes Association, (619) 279-9160

California Diabetes Control Program, California Department of Health Services, (916) 445-2547

Scripps Whittier Institute for Diabetes, (619) 450-1280

National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, [www.cdc.gov/nccdphp](http://www.cdc.gov/nccdphp)

National Institute for Diabetes and Digestive and Kidney Diseases, National Institutes of Health, [www.niddk.nih.gov](http://www.niddk.nih.gov)

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# ASTHMA

## Background

Asthma is a disease characterized by shortness of breath, wheezing, tight chest, and coughing. Asthma is attributed to familial, infectious, allergenic, socioeconomic, psychosocial and environmental factors. Some of the triggers of asthma include:

- ◀ Dust
- ◀ Smoke
- ◀ Mold
- ◀ Emotional upsets
- ◀ Pollen

## Size

### *San Diego County*

During 1996, over 3,000 people in San Diego County were hospitalized for asthma. (Fig. 1)

#### **San Diego County Asthma Hospitalizations (Table 1)**

- ◀ **1996 Rate:** 112.2 per 100,000 population.
- ◀ **1995-1996 Trend:** Decreased from 145.0 to 112.2 per 100,000.

### *National*

Nationwide, the prevalence and death rates of asthma have increased over the last several years.<sup>2</sup>

An estimated 14.9 million Americans have asthma. The prevalence of asthma is increasing in all age groups, especially younger than age 18 (nearly 5 million).<sup>3</sup>

Among chronic conditions affecting children, asthma is the one condition that is most prevalent. It is estimated that more than 7 percent of children in the US have asthma.<sup>4</sup>

People with asthma experience well over 100 million days of restricted activity annually, and the total annual costs of the disease are estimated at \$6.2 billion.<sup>4</sup>

## Seriousness

**Healthy People 2000 Objective:** The San Diego County rate of asthma hospitalizations (112.2 per 100,000) is less than the Healthy People 2000 Objective (160.0 not age adjusted).

Asthma is the leading cause of chronic illness in children.<sup>3</sup>

Between 400,000 and 1 million asthmatic children have their condition worsened by exposure to secondhand smoke.<sup>5</sup>

In 1996, there were over 5,500 asthma-related deaths in the US.<sup>2</sup>

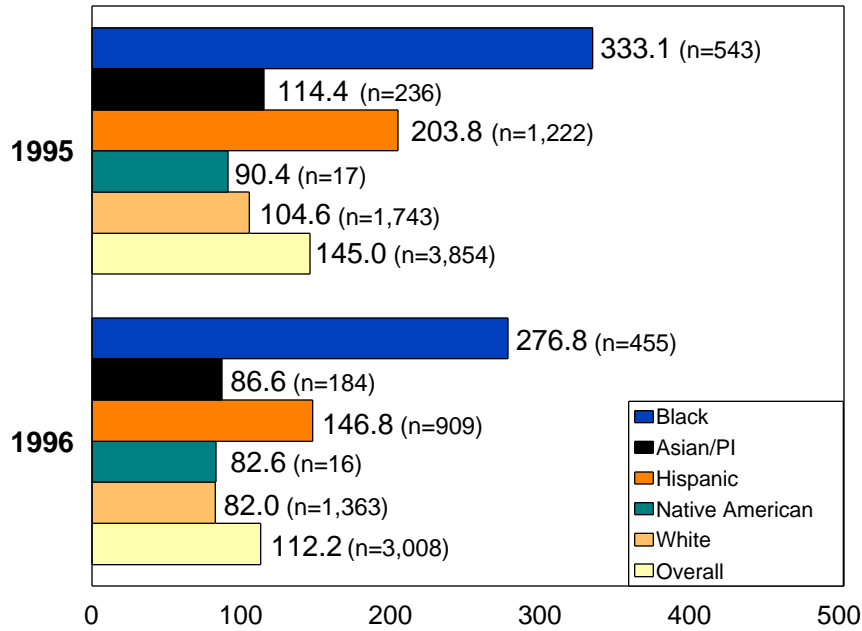
Annually, there are approximately 11 million office visits resulting in an asthma diagnosis and 28.4 million drug mentions for asthma.<sup>2</sup>

Over 500,000 hospitalizations, 5,000 deaths, and more than 133 million days of restricted activity are due to asthma every year.<sup>3</sup> The rate of hospitalizations among African Americans was nearly triple that of whites in 1993.<sup>4</sup>

Some of the impacts of asthma include:<sup>2</sup>

- ◀ School absenteeism
- ◀ Economic cost (hospital costs)
- ◀ Increased hospitalization
- ◀ Inability to participate in physical activity
- ◀ Frequent emergency room visits

**Figure 1**  
**Asthma Hospitalization Rates\* by Race/Ethnicity**  
**San Diego County, 1995-1996<sup>6</sup>**



**Table 1**  
**San Diego vs. the Nation—Asthma Hospitalization Rates<sup>\*,6</sup>**

San Diego County 1996	County Trends 1995-1996	California 1991	National 1995	HP2000 Objective
112.2	Decreased 145.0-112.2	146.6	194	160.0 (not age adjusted)

\* Rates per 100,000 population

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## Risk Factors

The odds of developing asthma are twice as high among children whose mothers smoke at least 10 cigarettes a day.<sup>5</sup>

Between 400,000 and 1 million asthmatic children have their condition worsened by exposure to secondhand smoke.<sup>5</sup>

Socioeconomic status, particularly poverty, is an important contributing factor to asthma morbidity and mortality.<sup>3</sup>

Asthma disproportionately affects children, minorities, and the poor.<sup>3</sup>

## High Risk Populations

**Age(s):** All

**Ethnicity(s):** African Americans and Latinos

◀ The San Diego County 1996 asthma hospitalization rates were much higher for African Americans (276.8) and also high for Hispanics (146.8) compared to the overall rate (112.2).

**County Areas:** Not Available

Asthma rates are higher in boys than in girls under 18 years. The prevalence of asthma is greater for women (6.7%) than for men (5.2%) and greater for African Americans (6.7%) than for whites (5.6%).<sup>3</sup>

## Prevention

Morbidity and mortality due to asthma are largely preventable with improved education and management of disease.<sup>2</sup>

According to Healthy People 2010, asthma education needs include:<sup>3</sup>

- ◀ Professional education to disseminate and promote adoption of the existing guidelines; to ensure appropriate diagnosis and management of asthma
- ◀ Patient education to teach patients essential asthma management skills
- ◀ Community education and outreach efforts to raise awareness about asthma

Additional asthma recommendations include:<sup>3</sup>

- ◀ Interventions to ensure access to medical care and appropriate financial support for medication, monitoring aids, and environmental control measures are essential to reduce the disproportionate burden of asthma among minorities and the poor.
- ◀ Early identification of patients with severe asthma and optimal management of asthma in such patients will prevent the development of irreversible lung changes
- ◀ Work with local community groups to mobilize community resources for a comprehensive approach to controlling asthma among high-risk populations remains a priority

## Model Programs

***National Asthma Education and Prevention Program, National Heart, Lung, and Blood Institute, National Institutes of Health<sup>4</sup>***

**For Patients and the Public:**

- ◀ Increase public awareness of asthma as a significant public health problem
- ◀ Increase public awareness of the signs and symptoms of asthma

- ◀ Improve the knowledge, attitudes, and skills of patients regarding the detection, treatment, and control of asthma, particularly in high-risk populations
- ◀ Define guidelines for effective asthma education programs
- ◀ Promote development, dissemination, and use of patient and family education materials.

**For Health Professionals:**

- ◀ Increase knowledge, attitudes, and skills of all health professionals regarding signs, symptoms, and management strategies for asthma
- ◀ Encourage health professionals treating patients with asthma to adequately track and monitor patient status and to use objective measures of lung function
- ◀ Assist and encourage health professional schools and continuing education programs to include up-to-date and accurate information on diagnosis, pathogenesis, and treatment of patients with asthma
- ◀ Promote and encourage the concept of active patient participation with the physician in the management of asthma
- ◀ Develop resources and materials for use by health professionals
- ◀ Promote research to answer unresolved questions about underlying causes of asthma and appropriate asthma treatment and management practices.

**Resources**

National Center for Chronic Disease Prevention and Health Promotion, [www.cdc.gov/nccdphp/nccdhome.htm](http://www.cdc.gov/nccdphp/nccdhome.htm)

American Lung Association, (619) 297-3901, [www.lungusa.org](http://www.lungusa.org)

Global Initiative for Asthma, [www.ginasthma.com](http://www.ginasthma.com)

National Center for Environmental Health, Centers for Disease Control and Prevention, [www.cdc.gov/nceh](http://www.cdc.gov/nceh)

National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, [www.cdc.gov/nccdphp](http://www.cdc.gov/nccdphp)

National Institute for Allergy and Infectious Diseases, [www.niaid.nih.gov](http://www.niaid.nih.gov)

National Heart, Lung, and Blood Institute, [www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)

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