



Asthma in California



Asthma is one of the most common chronic diseases. The prevalence of this disease has increased 74 percent over the last two decades in the United States [Mannino, 2002]. Asthma is a chronic inflammatory disorder of the airways. This inflammation causes the airways to narrow because of swelling, mucus build-up, and tightening of the muscles around the airways. Symptoms include coughing, wheezing, shortness of breath, and a tight feeling in the chest. Symptoms may occur or worsen if exposed to cigarette smoke, viral infections, animals with fur or feathers, house-dust mites, wood smoke, pollen, and certain occupational agents. The exact causes of asthma are not known. The development of asthma is determined by the interaction between genetics and environmental exposures.

A question about asthma has been included on the California Behavioral Risk Factor Surveillance System (BRFSS) since 1984. To determine how many Californians have had asthma in their lifetime, respondents were asked, "Have you ever been told by a doctor that you had asthma?" In the 2002 survey, 13.4 percent of adults in California reported that they had suffered from asthma at some point. This self-reported prevalence has increased 76 percent since 1984. The lifetime prevalence of asthma in 2002 was highest among blacks and lowest among Asian/others.

To determine the prevalence of active asthma, respondents were asked, "Do you still have asthma?" Based on the answers to this question, 6.7 percent (about 1.5 million) Californian adults have active asthma. More women than men reported currently having asthma. The prevalence was highest among blacks and lowest among Asian/others.

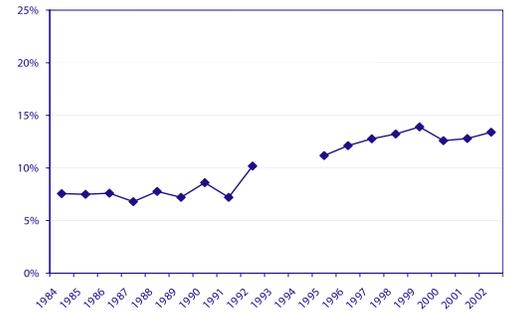
Respondents also were asked about asthma diagnoses in any children (under age 18) in the household. The respondents were asked, "How many children in the household have ever been diagnosed with asthma?" and "How many of these children still have asthma?" At least one child lived in 40 percent of the households surveyed. Of those households, 19 percent had one child or more with asthma. Overall, 11.9 percent of children have ever had asthma and 6.8 percent of children still had asthma.

Technical Notes: The California BRFSS interviewed 4,388 adults in 2002. Males represented 41 percent of the sample and females 59 percent. The sample was 65 percent white, 5 percent black, 22 percent Hispanic, and 8 percent other race/ethnicity. Data were weighted to the age-, race-, and sex-distribution of the 1990 California population. Race/ethnic specific analyses were age-adjusted to the 1990 California population.

Source: Mannino DM, Homa D, Pertowski CA, et al. Surveillance for asthma—United States, 1980-1999. Centers for Disease Control and Prevention. Surveillance Summary. Morbidity and Mortality Weekly Report. 2002; 51 (No. SS-1).

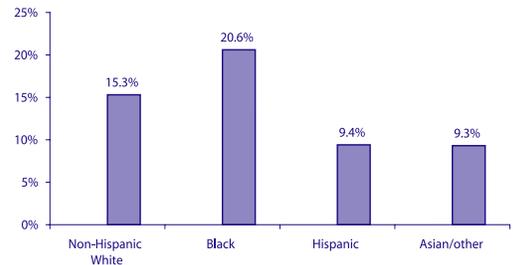
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Adult Lifetime Asthma Prevalence by Year
California BRFSS, 1984-2002



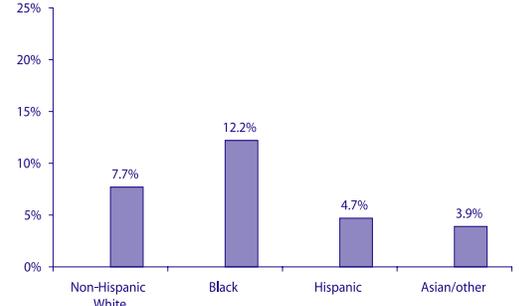
Weighted to the 1990 California Population
Source: California Department of Health Services, Cancer Surveillance Section, Survey Research Group

Adult Lifetime Asthma Prevalence by Race/Ethnicity
California BRFSS, 2002



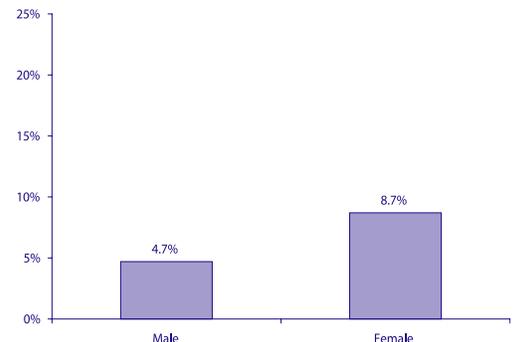
Age-adjusted to the 1990 California Population
Source: California Department of Health Services, Cancer Surveillance Section, Survey Research Group

Adult Active Asthma Prevalence by Race/Ethnicity
California BRFSS, 2002



Age-adjusted to the 1990 California Population
Source: California Department of Health Services, Cancer Surveillance Section, Survey Research Group

Adult Active Asthma by Sex
California BRFSS, 2002



Weighted to the 1990 California Population
Source: California Department of Health Services, Cancer Surveillance Section, Survey Research Group

BRFSS is an ongoing effort by the California Department of Health Services (CDHS), in conjunction with the U.S. Centers for Disease Control and Prevention (CDC), and the Public Health Institute, to assess the prevalence of and trends in health-related behaviors in the California population aged 18 years and older. It is supported in part by funds from the Cooperative Agreement No. U58/CCU910655-09 from CDC, and in part by funds from the CDHS, Tobacco Control Section, and other programs and state departments. Data are collected monthly from a random sample of California adults living in households with telephones. The BRFSS database contains information on Californians from 1984 through the present.

The BRFSS questionnaire is developed each year by CDC in collaboration with participating state agencies. Wherever possible, questions have been selected from previously conducted national surveys for comparability. The questionnaire has three components. The first component consists of a core set of questions that is administered by all states participating in the BRFSS collection effort.

The second component of the questionnaire consists of a series of topical modules developed by CDC. States have the option of adding as many modules as they wish to the core questionnaire each year. California has used several CDC modules, although the same modules have not been used consistently across all years of the survey.

The final component of the questionnaire consists of questions designed and administered by individual states to address issues of local concern. These have been revised annually in California to address the needs of as many programs as possible. However, the time constraints of a telephone interview have limited the number of questions that can be placed on the survey in any one year.

Participants in the BRFSS are asked about a wide variety of behaviors such as seat belt use, exercise, weight control, diet, tobacco and alcohol consumption, utilization of cancer screening procedures, and other preventive measures. They also are asked for basic demographic information such as age, race/ethnicity, marital and employment status, household income, and education. Participation in the BRFSS is completely voluntary and anonymous.

The age, race/ethnicity, and sex characteristics of the BRFSS sample differ to some extent from the age, race/ethnicity, and sex characteristics of the California population. Weighting adjustments are used to compensate for these differences. Prior to analyzing the BRFSS data, the sample is weighted so that age, race/ethnicity, and gender composition match that of the California population. This allows the findings to be generalized to the California population.

For more information on the BRFSS, contact Bonnie Davis, CDHS, Cancer Surveillance Section, Survey Research Group (916) 779-0331, bonnie@ccr.ca.gov.