

Asthma Among Adults in Sacramento County, 2001

Background

Asthma has been increasing in the United States since 1980, causing an epidemic. The reason for this epidemic is unknown. According to the National Health Interview Survey the prevalence of asthma in the United States from 1990 through 1996 is estimated to be between 4% and 6 % (1). Asthma prevalence is known to be bimodal, with a higher prevalence among children (aged less than 18 years) and adults aged greater than 75 years (2).

Asthma is a hypersensitivity of the respiratory tract that results in bronchospasm. Chiefly it is in response to certain stimuli such as dust mites, cat allergens, cockroach antigens, various pollens, and respiratory tract infections. Although data support that ambient outdoor air is cleaner today than 20 years ago, outdoor air pollution would seem to be an obvious suspect cause. In 2001, the Centers for Disease Control and Prevention (CDC) released a report that showed a decline in emergency room visits and hospitalizations of children for asthma. Authors hypothesized that the decline was due to a decrease in automobile use (3).

California Health Interview Survey

This report presents asthma prevalence data for adults aged 18 years and above, based on the 2001 California Health Interview Survey (CHIS) public use files for Sacramento County and California. CHIS is an ongoing, California-based, random-digit-dialed

telephone survey of the California civilian, non-institutionalized population. CHIS is considered to be the largest telephone survey in California and the largest health survey of its kind in the country. The sample frame consists of over 55,000 households. The CHIS sample is designed to provide population-based estimates for most California Counties, all major ethnic groups, and several ethnic subgroups. Major content areas for the survey include health-related behaviors, health status and conditions, health insurance coverage, and access to health care services.

Limitations

The findings in this report are subject to at least four limitations. First, CHIS excludes persons without telephones; therefore, data may underestimate the number of adults with asthma from low socioeconomic groups. Second, the data are self-reported and the validity of the data is unknown. Third, because the overall sample size for Sacramento County is relatively small, it is possible that some comparative estimates may be unreliable. Finally, because diagnostic criteria for asthma are not standardized, estimates of asthma prevalence vary with each data source including self-reported information from health surveys and physician reports.

Lifetime Asthma Prevalence

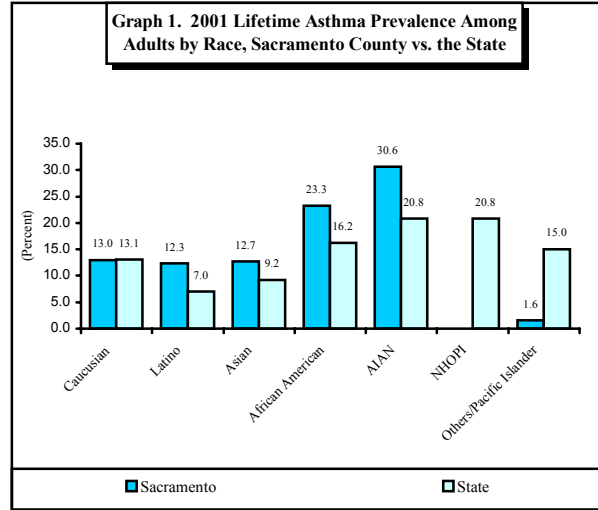
In Sacramento County, 13.6% (N=117,225) of the adult population aged 18 years and above reported being diagnosed with asthma at some point in their lives ("lifetime asthma

prevalence”). Sacramento County’s lifetime asthma prevalence is higher than both California and the national level. The California lifetime asthma prevalence is 11.5% for adults and 11.9% for all ages, whereas the national lifetime asthma prevalence for all ages is 10.1%.

Of the respondents who have been diagnosed with asthma in Sacramento County, 44.4% (n=52,088) are male and 55.6% are female (n=65,137). The lifetime asthma prevalence for females is 14.4%, and 12.7% for males in Sacramento County. The lifetime asthma prevalence for males and females in Sacramento County is higher than that for the State of California, (females 13.0% and males 10.0%).

Lifetime Asthma Prevalence by Race/Ethnicity

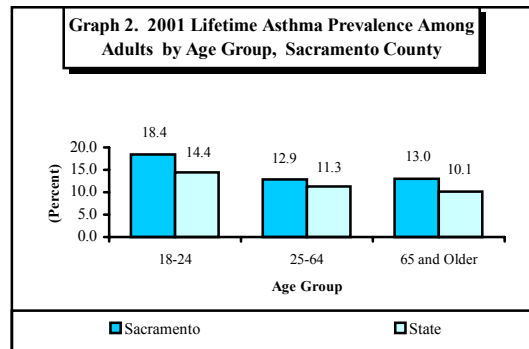
In Sacramento County, American Indian and Alaska Native (AIAN) have the highest asthma prevalence (30.6%) among all racial and ethnic groups, followed by African Americans (23.3%). Compared to the State, Latino, Asian, African American and AIAN ethnic groups have higher asthma prevalence estimates in Sacramento County. Caucasian asthma prevalence estimates are similar (See Graph 1). For confidentiality reasons, the CHIS local public use file, combined Pacific Islanders with Others due to its small sample size. As a result, we are unable to report estimates exclusively for Pacific Islanders.



Note: American Indian and Alaska Native is abbreviated AIAN. Native Hawaiian and Other Pacific Islander is abbreviated NHOPI. The sample size for NHOPI ethnic group is too small to estimate in Sacramento County.

Lifetime Asthma Prevalence by Age Group

In Sacramento County the highest lifetime asthma prevalence is among young adults aged 18 to 24 years (18.4%, n= 3,756), which is higher than that of the state estimate for this age group at 14.4 % (See Graph 2). Overall, Sacramento County has higher lifetime asthma prevalence in all three age groups compared to that of the state.

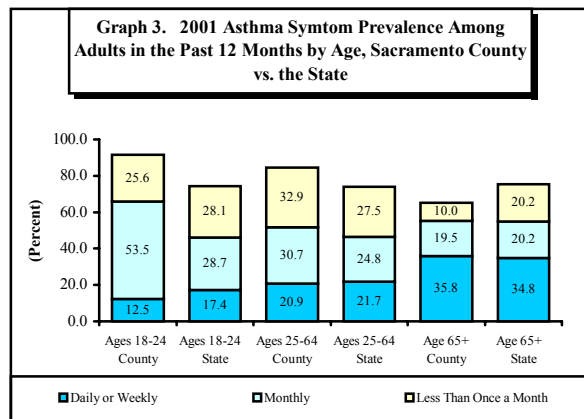


Asthma Symptom Prevalence

In Sacramento County 11.3% (n=97,264) of adult respondents experienced asthma symptoms at least once in the past 12 months (“asthma symptom prevalence”). Of these respondents, 39.9% (n=38,802) experienced symptoms monthly, and 25.9% (n= 25,211) experienced symptoms daily or weekly. Compared to the State of California, asthma symptom prevalence for adults in Sacramento County (11.3%) is higher than that of the State of California (8.6%).

Asthma Symptom Prevalence by Age Group

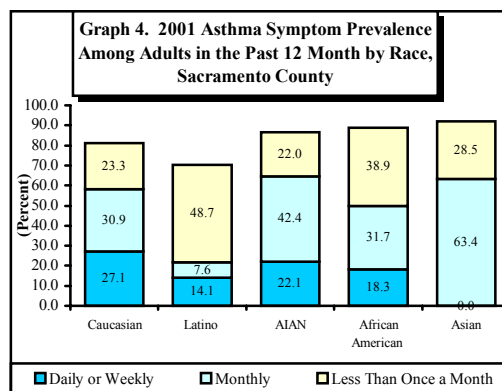
The asthma symptom prevalence among adults varied within each age group. For both Sacramento County and the State of California, the percent of respondents who experienced asthma symptoms daily or weekly increased linearly within each age group, whereas the percent of respondents who experienced symptoms monthly declined within each age group. The percent of respondents with daily or weekly asthma symptoms age equal to 65 years and older is almost three times higher than that of respondents aged 18 to 24 years in Sacramento County. Young adults age 18 to 24 years have the highest percent of monthly asthma symptom prevalence among all other age groups, and adults aged equal to and greater than 65 years have the highest percent of daily or monthly asthma symptoms among all age groups (See Graph 3).



* Data reports respondents who have experienced asthma symptoms during the past 12 months.

Asthma Symptom Prevalence by Race/Ethnicity

Among adults diagnosed with asthma in Sacramento County, asthma symptom prevalence varied by race. Of these respondents, one in four Caucasians (27.1%, n=19,738), one in five AIAN (22.1%, n=498), approximately one in five African Americans (18.3%, n=3,153), and one in seven Latinos (14.1%, n=1,447) experienced daily or weekly asthma symptoms. No Asians reported daily or weekly asthma symptoms (See Graph 4). The sample size for Native Hawaiian and Other Pacific Islanders is too small to report estimates for asthma symptoms in Sacramento County.

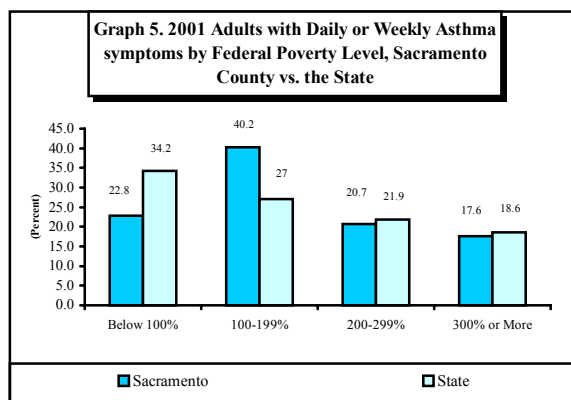


Note: American Indian and Alaska Native is abbreviated AIAN. The sample size for Native Hawaiian and Other Pacific Islanders is too small to report estimates for asthma symptoms.

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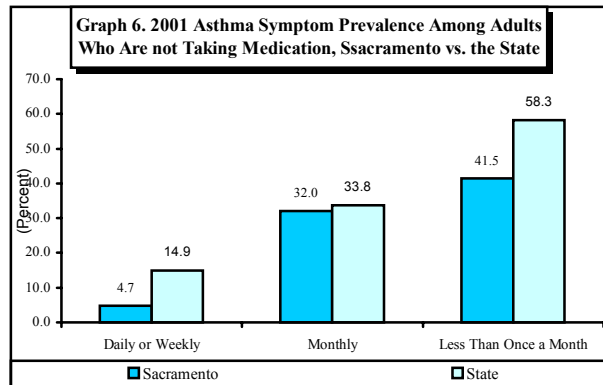
Asthma Symptom Prevalence by Federal Poverty Level

Adults who have asthma with family incomes at the federal poverty level 100-199% are twice as likely to experience asthma symptoms daily or weekly as those with family incomes at the 300% or more federal poverty level (See graph 5).



Asthma Symptom Prevalence Among Respondents Not Taking Medication

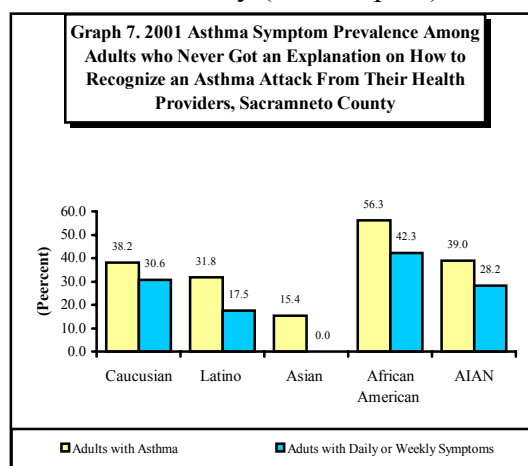
Of the adults who experienced daily or weekly asthma symptoms in Sacramento County, 95.3% are taking medication to control their asthma, and 4.7% (n=1,194) are not taking any medication, whereas in California 14.9% of adult respondents who experienced asthma daily or weekly are not taking medication (See Graph 6).



Healthcare Provider Explanation on Recognizing an Asthma Attack

Of the adults with asthma 37.1% never got an explanation on how to recognize an asthma attack from their healthcare provider in Sacramento County. Of these respondents, 56.3% of African Americans, 39.0% of AIAN, 38.2% of Caucasians, 31.8% of Latinos, and 15.4% of Asians never got an explanation on how to recognize an asthma attack from their healthcare provider.

Among adults with persistent daily or weekly asthma symptoms, 42.3% of African Americans, 29.1% of Caucasians, 28.2% of AIAN, and 17.5% of Latinos never got an explanation on how to recognize an asthma attack from their health care provider in Sacramento County (See Graph 7).



Asthma Education and Smoking

In Sacramento County, 12.7% of adults who experienced asthma symptoms daily or weekly reported not receiving information from their doctors on how to avoid those things that make asthma worse, and 31.1% of adults who experienced asthma symptoms daily or weekly never got an explanation on how to recognize an asthma attack. Further, 26.3% of adults (n=6,635) who experienced asthma symptoms daily or weekly are currently smoking.

Emergency Room Visits

In Sacramento County, 9.9% of adults (n=11,568 people) with asthma reported visiting a hospital emergency room due to their asthma in the past 12 months. Of these respondents, 11.3% of Latinos, 6.6% of Asians, 15.5% of African Americans, and 9.3% of Caucasians reported visiting a hospital emergency room due to their asthma in the past 12 months.

Health Insurance and Health Care

It is estimated that 8.3% of adult respondents (n=9,695) with asthma had no health insurance during the past 12 months in Sacramento County. Of these respondents, 512 (5.2%) reported delaying or not getting prescriptions or other health care they needed for asthma.

Hospitalizations

Of the adult respondents with asthma symptoms, 2,678 reported being hospitalized due to asthma in the past 12 months, and about 6,116 (5.2%) reported missing work due to asthma in the past 12 months. Of the adults who experienced asthma symptoms daily or weekly, 27.1% visited the doctor

only once or not at all in the past 12-months in Sacramento County.

Conclusions

The findings in this report indicate that the lifetime asthma prevalence in Sacramento County is higher than both California and the United States. For both Sacramento County and the State of California, American Indians and Alaska Natives (AIAN) followed by African Americans have the greatest racial disparity for lifetime asthma prevalence. Further, the results suggest that African Americans and AIAN are less likely to receive an explanation on how to recognize an asthma attack from their healthcare providers. This conclusion supports the need to increase education for recognizing asthma attacks and awareness among patients diagnosed with asthma.

References:

1. Vital and Health Statistics: Current Estimates from the National Health Interview Survey, 1990. Series 10: Data from the National Health Interview Survey. Hyattsville, Md: US Department of Health and Human Services; 1991. DHHS publication PHS 92-1509.
2. Centers for Disease Control and Prevention. Asthma—United States, 1980-1987. MMWR. 1990; 39:493-497.
3. Journal of the American Medical Association (JAMA) Impact of Changes in Transportation and Commuting Behaviors During the 1996 Summer Olympic Games In Atlanta on Air Quality and Childhood Asthma. Michael S. Friedman, et. al.

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