

# State of Asthma Hawaii 2006



SUPPLEMENT



Hawaii Asthma Initiative

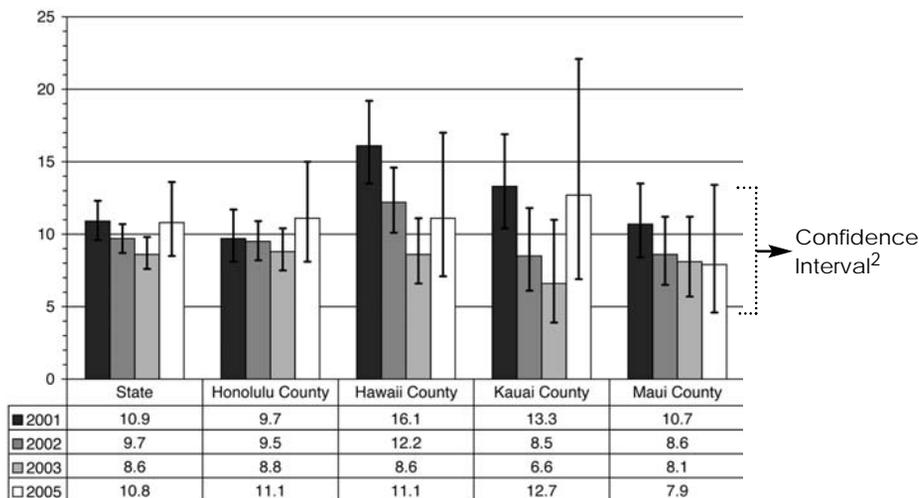
# Asthma in Children and Adults

## Children

Data depicted in Figure 1-5 are from the Hawaii Behavioral Risk Factor Surveillance System (BRFSS)<sup>1</sup> phone survey for years 2001, 2002, 2003, and 2005 (2004 not shown). Based on BRFSS 2005, approximately 10.8% or 32,900 children, ages 0-17, living in Hawaii currently have asthma (Figure 1). The survey also shows that about 15.1% or 45,987 children living in Hawaii reported having asthma at some point in their lifetime (data not shown).

Figure 1: Percent of children residing in the State of Hawaii and the four counties that currently have asthma, Hawaii BRFSS.

**Finding:** On average, Hawaii County has the highest percentage of children with current asthma (12%) compared with other counties and the state average. From 2001 - 2005, Maui and Hawaii counties have seen decreases in current asthma; however, most of these differences are not statistically significant.

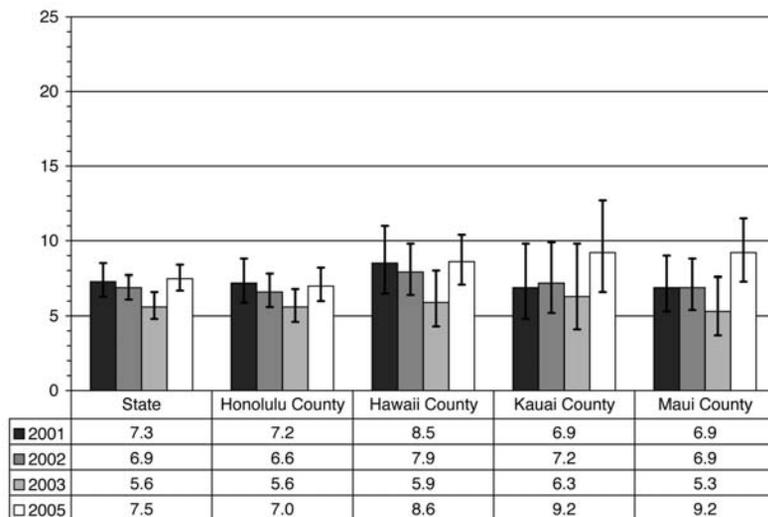


## Adults

Based on the Hawaii BRFSS 2005, approximately 7.5% or 72,696 adults living in Hawaii currently have asthma (Figure 2). The survey also found that about 13.7%, or an estimated 132,792 adults living in Hawaii reported having asthma at some point in their lifetime (data not shown).

Figure 2: Percent of adults residing in the State of Hawaii and the four counties that currently have asthma, Hawaii BRFSS.

**Finding:** On average, Hawaii County has the highest percentage of adults with current asthma (7.7%) compared with other counties and the state average. From 2001 - 2005, the percent of adults with current asthma did not change significantly.



# Asthma by Gender and Ethnicity

Figure 3: Percent of Hawaii adults who currently have asthma by gender, Hawaii BRFSS.

Finding: Female adults are more likely to report being diagnosed with current asthma than males. The prevalence of current asthma for females seems to be increasing although this is not statistically significant. From 2001 - 2005, there appears to be an increase, although this is not statistically significant.

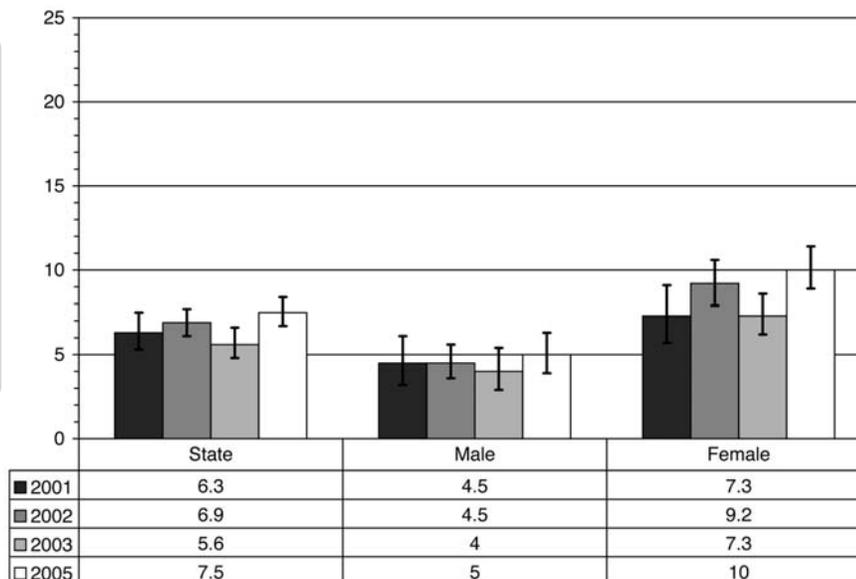
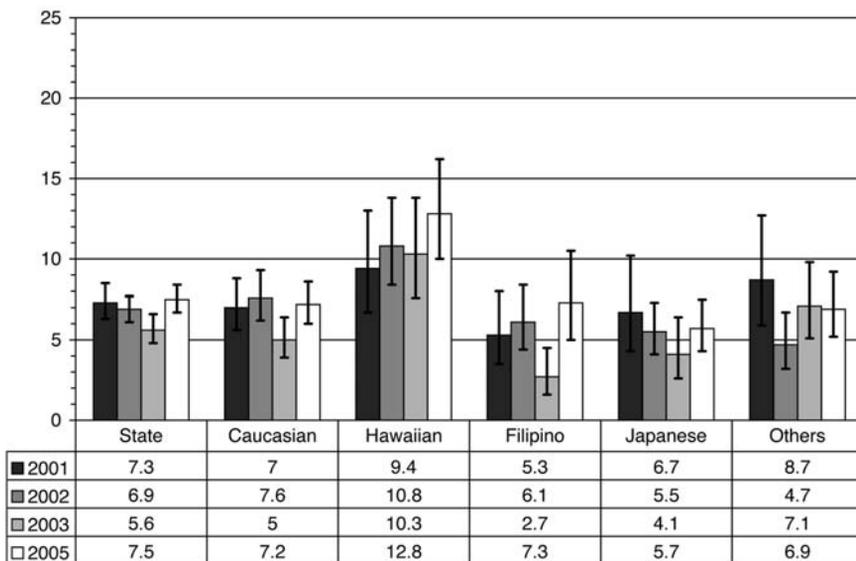


Figure 4: Percent of Hawaii adults who currently have asthma by ethnicity, Hawaii BRFSS.

Finding: Native Hawaiian adults have the highest rate of current asthma when compared with the other major ethnic groups; and the trend seems to show an increase (not statistically significant).



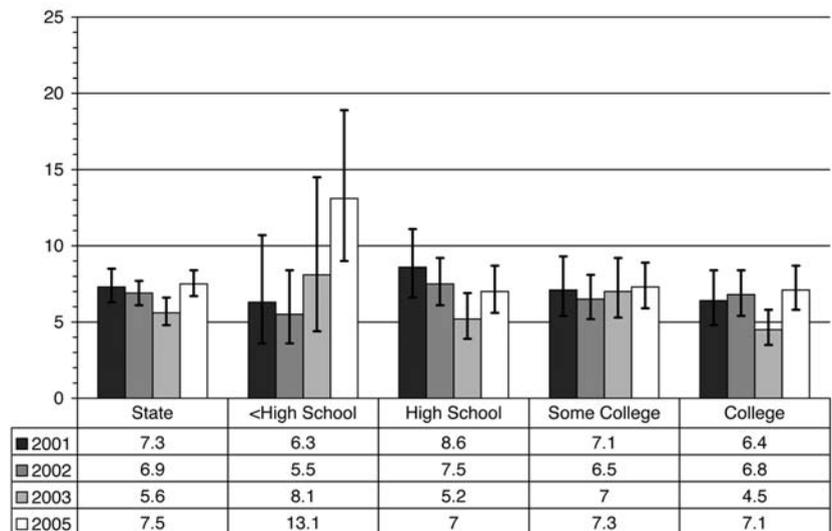
<sup>1</sup> Source: The Behavioral Risk Factor Surveillance System (BRFSS) is an annual telephone survey of civilian, non-institutionalized adults (>18 years) in the United States which has been conducted in all the states and territories since 1988. The BRFSS assesses risk factors for disease(s) and conditions related to the ten leading causes of death in the U.S. population.

<sup>2</sup> A 95% confidence interval is range that contains the true population prevalence estimate with 95% certainty. For a more complete explanation of this confidence interval, please refer to the State of Asthma Hawai'i 2004 burden report.

# Asthma by Education Level

Figure 5: Percent of Hawaii adults who currently have asthma by education level, Hawaii BRFSS.

Finding: There appears to be an increase in the proportion of adults with less than a high school education reporting having current asthma, although this is not statistically significant.



Based on the BRFSS 2003

- The majority of adults (56.2%) who reported currently having asthma, also reported having had an asthma attack during past 12 months.
- 13.2% of adults who have asthma visited an emergency room or urgent care facility for their asthma in the past 12 months; almost half of them were repeat visits:
  - 7.2% visited an emergency department once in the past year,
  - 5.3% visited an emergency department 2-3 times in the past year,
  - 0.7% visited an emergency department more than 4 times in the past year.
- Among half of the adults who report currently having asthma, almost one-half (45.4%), were diagnosed before the age of 10.
- Women who currently have asthma sought a doctor, nurse or health professional for urgent treatment of worsening asthma symptoms more frequently than males (39.9% vs. 35.6%).
- More than two-thirds of adults with current asthma (70.8%) were able to work and carry out their usual activities in the past 12 months; however, 14.9% were unable to perform usual activities for 1 to 3 days and 14.3% were unable for more than 4 days.
- Most of the adults with asthma saw a doctor, nurse or other health professional for a routine checkup for their condition in the past 12 months one or more times: one time (27.0%), two or three times (16.0%), and more than four times (13.4%).
- Most of the adults with current asthma reported having some symptoms in the past 30 days:
  - 20.8% had symptoms less than once a week;
  - 17.8% had symptoms once or twice a week;
  - 14.6% had symptoms 2 times a week;
  - 5.7% had daily symptoms.
- More than one-half of the adults with current asthma (54.3%) had difficulty staying asleep because of the symptoms of asthma in the past 30 days.
- In the past 30 days, the majority of the adults with current asthma (69.7%) took asthma medication(s) prescribed by a doctor:
  - 12.1% took asthma medication(s) less than once a week;
  - 15.2% took asthma medication(s) once or twice a week;
  - 6.7% took asthma medication(s) more than 2 times a week;
  - 21.9% took asthma medication(s) once every day;
  - 13.8% took asthma medication(s) 2 or more times per day.

# Asthma Emergency Department Visits

Data depicted in Figure 6 - 7 are from Hawaii Health Information Corporation (HHIC) and US Census Estimates<sup>3</sup>.

Figure 6: Hawaii asthma<sup>4</sup> related emergency department visits per 10,000 population<sup>5</sup> by age group, HHIC, 2000-2002.

Finding: Very young children (0-4 years) had the highest asthma related ED utilization rate among all age groups. Individuals between the ages of 5-64 were closest to meeting the Healthy People 2010 goal. For the years 2000-2002, the asthma related ED utilization rate appears to have increased, especially among children aged 0-4 years.

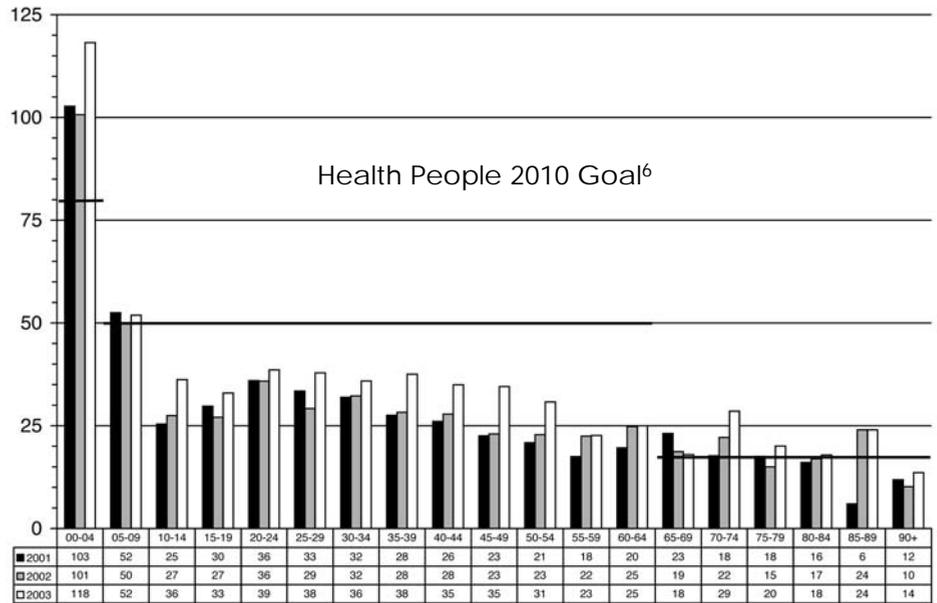
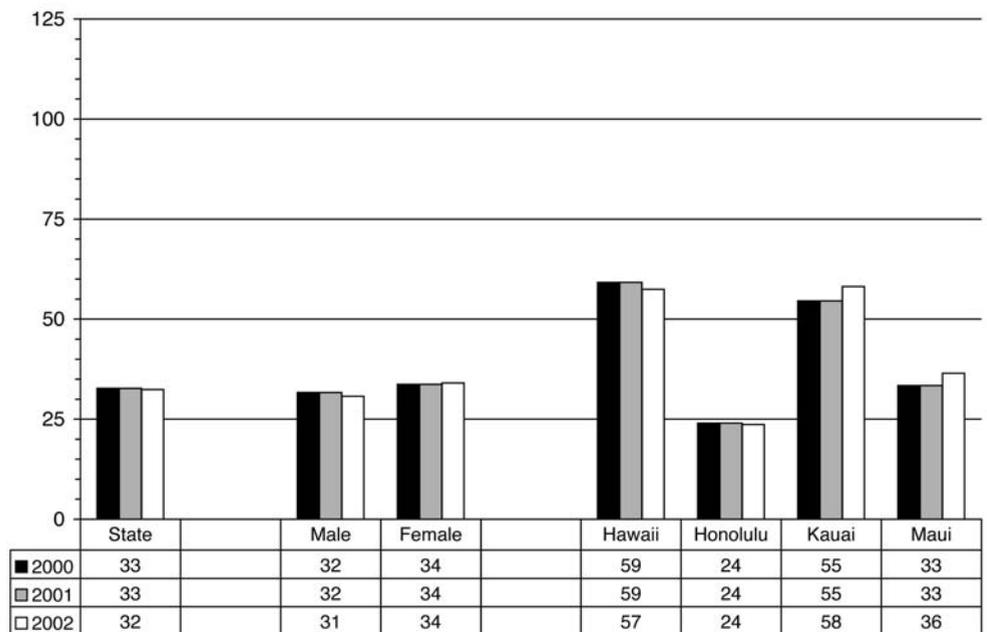


Figure 7: Hawaii asthma<sup>4</sup> related emergency department visits per 10,000 population<sup>5</sup> by sex and country, HHIC, 2000-2002.

Finding: Females had a slightly higher asthma related ED utilization rate compared to males. On average, Hawaii County had the highest asthma related ED utilization rate, whereas Honolulu County had the lowest. For the years 2000-2002, the asthma related ED utilization rate appears to have slightly increased in Kauai and Maui Counties.

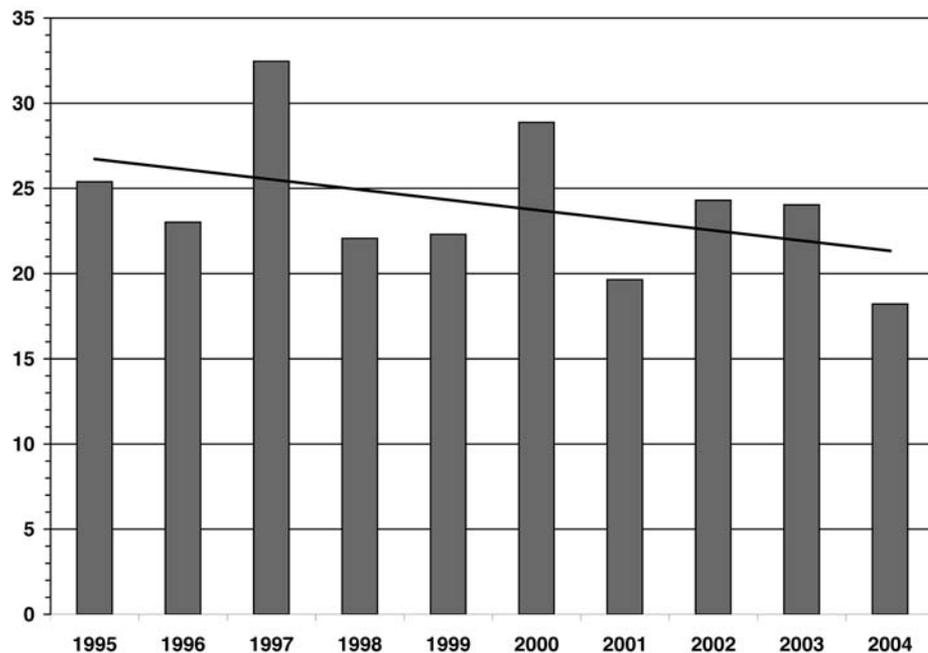


# Asthma Mortality

Data depicted in Figure 8 are from the Hawaii State Department of Health, Office of Health Status Monitoring and US Census Estimates<sup>7</sup>.

Figure 8: Hawaii statewide asthma mortality rates<sup>8</sup> per 1,000,000 population from 1995 to 2004.

Finding: There is an overall non-significant downward trend in asthma mortality rates from 1995 to 2004 averaging around 0.6 deaths per year<sup>9</sup>.



<sup>3</sup> Source: Hawaii Health Information Corporation, Emergency Department Database. Data are based on ER visit data received from Hawaii's non-federal hospital-based Emergency Departments, with the exception of Kahuku ED. (Straub ED data not available until calendar year 2005). US Census Estimates 2000.

<sup>4</sup> Asthma was defined as primary diagnosis with ICD9:493.XX.

<sup>5</sup> Out of state residents were excluded.

<sup>6</sup> The horizontal line represents the Health People 2010 Goal (for ages 0-5 the goal is reduce ED visits to 80 per 10,000, for ages 5-64 the goal is 50 per 10,000, and for ages over 65 year the goal is 15 per 10,000).

<sup>7</sup> Source: US Census Estimates, Hawaii State Office of Health Status Monitoring.

<sup>8</sup> Asthma mortality defined as asthma as an underlying cause of death according to the International Classification of Diseases, Version 9 (1995-1998) and Version 10 (1999-2004).

<sup>9</sup> Estimated Comparability Ratio was used for the years 1995-1998 derived by Anderson RN, Miniño AM, Hoyert DL, Rosenberg HM. Comparability of Cause of Death Between ICD-9 and ICD-10: Preliminary Estimates. National Vital Statistics Report, 49 (2) 2001.

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