

Asthma in Hawaii

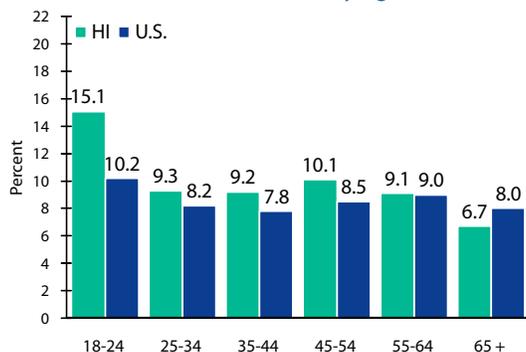
Asthma is a chronic lung disease that affects an estimated 16.4 million adults (aged ≥ 18 years)¹ and 7.0 million children (aged < 18 years)¹ in the United States (U.S.), regardless of age, sex, race, or ethnicity. Although the exact cause of asthma is unknown and it cannot be cured, it can be controlled with self-management education, appropriate medical care, and avoiding exposure to environmental triggers. The following data provide an overview of the burden of asthma in Hawaii (HI) compared with the U.S.

All stated comparisons (e.g., higher, lower, similar) indicate that the group is statistically significantly different than the reference group (e.g., adults aged 18-24 years, men, non-Hispanic whites, children aged 15-17 years, and boys).

Asthma Prevalence

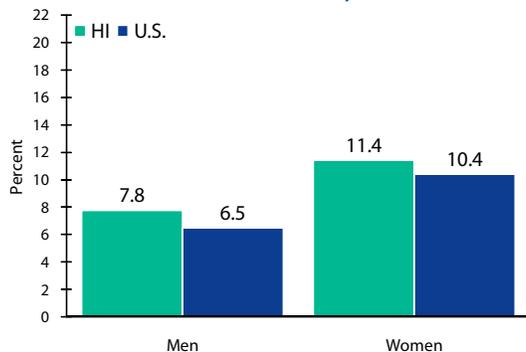
In 2008, an estimated 95,665 adults in Hawaii had asthma. Adult lifetime asthma prevalence was 16.1% and adult current asthma prevalence was 9.6% compared with U.S. rates of 13.3% and 8.5%, respectively².

Adult Current Asthma Prevalence by Age, BRFSS, 2008



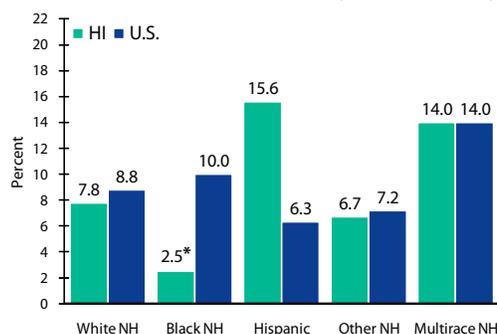
Adult current asthma prevalence was lower among adults aged 25-44 and 55+ years than adults aged 18-24 years in Hawaii; however, the rate was highest among adults aged 18-24 years throughout the U.S.

Adult Current Asthma Prevalence by Sex, BRFSS, 2008



Adult current asthma prevalence was higher among women than men in Hawaii. A similar pattern occurred throughout the U.S.

Adult Current Asthma Prevalence by Race/Ethnicity, BRFSS, 2008

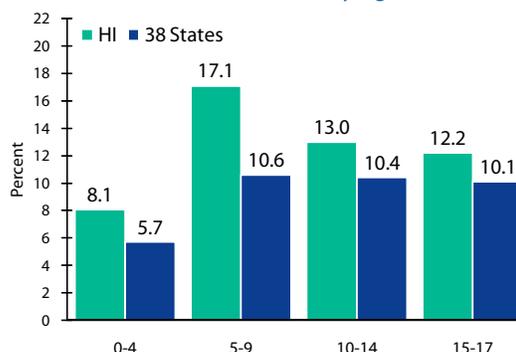


Adult current asthma prevalence was higher among Hispanics and non-Hispanic multirace persons than non-Hispanic whites in Hawaii; however, rates were higher among non-Hispanic multirace persons and non-Hispanic blacks throughout the U.S.

*The estimate is unstable.

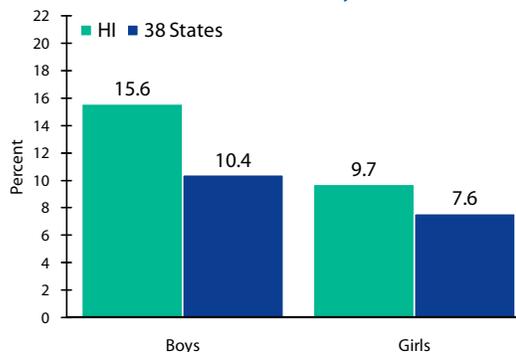
In 2008, an estimated 36,738 children in Hawaii had asthma. Child lifetime asthma prevalence was 18.6% and child current asthma prevalence was 12.7% compared with the 38 participating states' rates of 13.3% and 9.0%, respectively².

Child Current Asthma Prevalence by Age, BRFSS, 2008



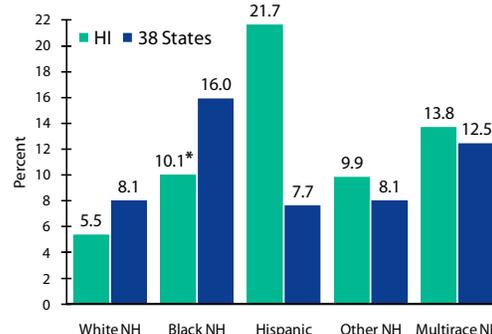
Child current asthma prevalence was similar among all age groups when compared with children aged 15-17 years in Hawaii; however, the rate was lower among children aged 0-4 years throughout the 38 participating states.

Child Current Asthma Prevalence by Sex, BRFSS, 2008



Child current asthma prevalence was higher among boys than girls in Hawaii. A similar pattern occurred throughout the 38 participating states.

Child Current Asthma Prevalence by Race/Ethnicity, BRFSS, 2008



Child current asthma prevalence was higher among Hispanics and non-Hispanic multirace persons than non-Hispanic whites in Hawaii; however, rates were higher among non-Hispanic blacks and non-Hispanic multirace persons throughout the 38 participating states.

*The estimate is unstable.

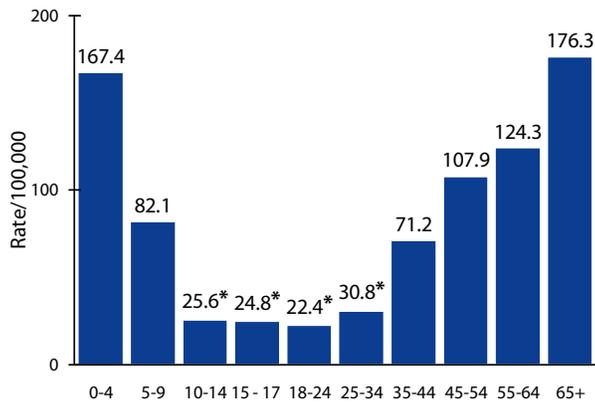
National Center for Environmental Health

Division of Environmental Hazards and Health Effects



Asthma Hospitalizations

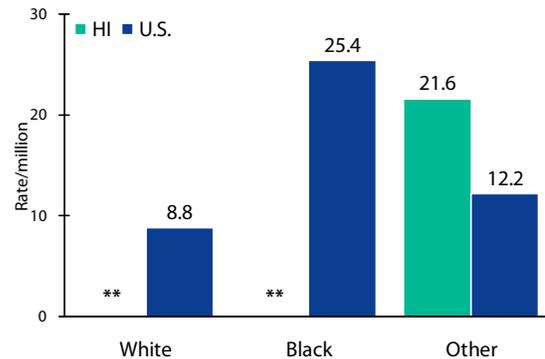
Hawaii Hospital Discharge Data, 2008



The age-adjusted asthma hospitalization rate in Hawaii was 85.6/100,000 persons³ compared with the U.S. rate of 144/100,000 persons⁴. In Hawaii, the hospitalization rate for children was 83.3/100,000 persons³ and for adults was 92.3/100,000 persons³.
*The estimate is unstable.

Asthma Deaths

Age-Adjusted Asthma Mortality Rate by Race, NVSS, 2007



Asthma was the underlying cause of death for 29 adults and less than 10** children in Hawaii⁵. The age-adjusted mortality rate in Hawaii was 20.6/million and the U.S. rate was 11.0/million⁵.
**The estimate is suppressed.

Asthma Patient Education and Medication Use

The National Heart, Lung, and Blood Institute (NHLBI) Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma includes recommendations by medical and public health experts to aid in the clinical practice of managing asthma. The NHLBI Guidelines focus on four areas of asthma management and care: Assessment and Monitoring, Patient Education, Control of Environmental Factors Contributing to Asthma Severity, and Pharmacologic Treatment. Items included in the following table are related to asthma patient education and medication use for adults with current asthma in Hawaii.

Patient Education: Adults with Current Asthma ⁶	Respondents	Yes
Ever taught how to recognize early signs or symptoms of an asthma episode	313	69%
Ever told what to do during an asthma attack	315	83%
Ever taught how to use a peak flow meter to adjust daily medications	314	46%
Ever given an asthma action plan	314	32%
Ever taken a course on how to manage asthma	313	13%

Medication Use: Adults with Current Asthma ⁶	Respondents	Yes
Used a prescription asthma medication in the past 3 months ⁷	308	65%

NOTES:

- National Health Interview Survey (NHIS), 2008
- Behavioral Risk Factor Surveillance System (BRFSS), 2008
When the sample size is fewer than 50, prevalence estimates are considered unstable and should be interpreted with caution. Indicated with an asterisk (*)
All stated comparisons (e.g., higher, lower, similar) indicate that the group is statistically significantly different than the reference group (e.g., adults aged 18-24 years, men, non-Hispanic whites, children aged 15-17 years, and boys).
- State Hospital Discharge Data, 2008
- National Hospital Discharge Survey, 2008
When estimates are based on fewer than 60 hospitalizations, they are considered unstable and should be interpreted with caution. Indicated with an asterisk (*)
- National Vital Statistics System (NVSS), 2007
When estimates are based on fewer than 20 deaths in the numerator, they are considered unstable and should be interpreted with caution. Indicated with an asterisk (*)
When estimates are based on fewer than 10 deaths in the numerator, data are suppressed due to confidentiality. Indicated with double asterisks (**)
- Asthma Call-back Survey, 2008
- Medication includes inhalers, pills, syrups, and nebulizers.

CDC's National Asthma Control Program
For more information on asthma:

<http://www.cdc.gov/asthma>

<http://www.hawaii.gov/health/family-child-health/chronic-disease/asthma/index.html>