

Asthma in Puerto Rico

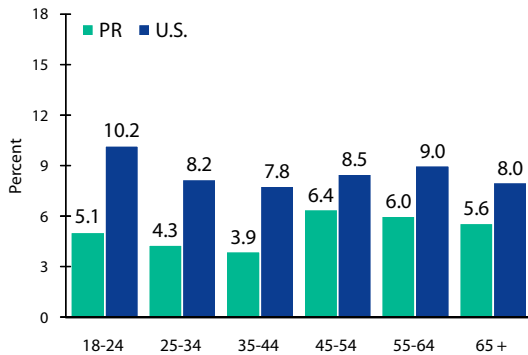
Asthma is a chronic lung disease that affects an estimated 16.4 million adults (aged ≥ 18 years)¹ and 7.0 million children (aged < 18 years)¹ in the United States (U.S.), regardless of age, sex, race, or ethnicity. Although the exact cause of asthma is unknown and it cannot be cured, it can be controlled 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 Puerto Rico (PR) 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 147,260 adults in Puerto Rico had asthma. Adult lifetime asthma prevalence was 15.2% and adult current asthma prevalence was 5.2% compared with U.S. rates of 13.3% and 8.5%, respectively².

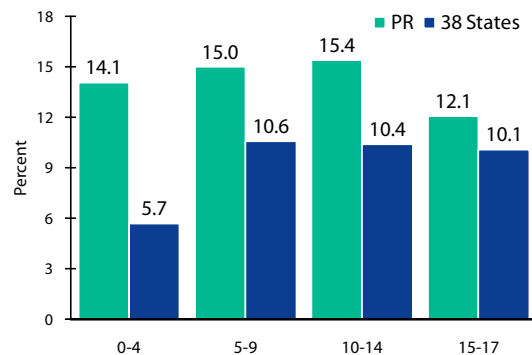
In 2008, an estimated 143,080 children in Puerto Rico had asthma. Child lifetime asthma prevalence was 28.9% and child current asthma prevalence was 13.8% compared with the 38 participating states' rates of 13.3% and 9.0%, respectively².

Adult Current Asthma Prevalence by Age, BRFSS, 2008



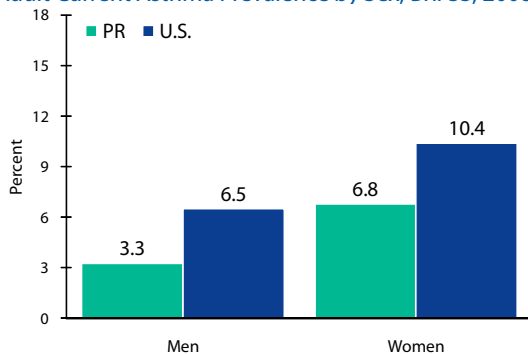
Adult current asthma prevalence was similar among all age groups when compared with adults aged 18-24 years in Puerto Rico; however, the rate was highest among adults aged 18-24 years throughout the U.S.

Child Current Asthma Prevalence by Age, BRFSS, 2008



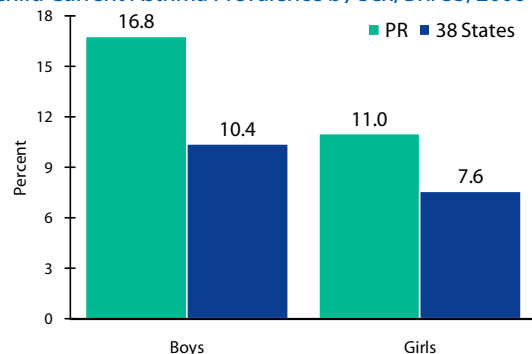
Child current asthma prevalence was similar among all age groups when compared with children aged 15-17 years Puerto Rico. A similar pattern occurred throughout the 38 participating states.

Adult Current Asthma Prevalence by Sex, BRFSS, 2008



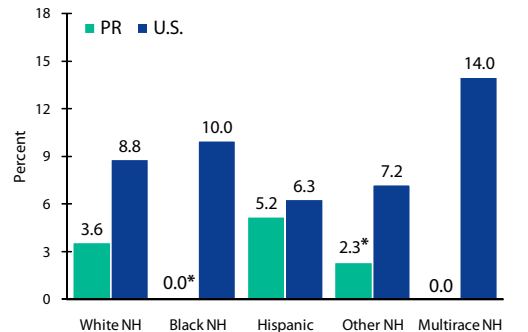
Adult current asthma prevalence was higher among women than men in Puerto Rico. A similar pattern occurred throughout the U.S.

Child Current Asthma Prevalence by Sex, BRFSS, 2008



Child current asthma prevalence was higher among boys than girls in Puerto Rico; however, the rate was higher among boys throughout the 38 participating states.

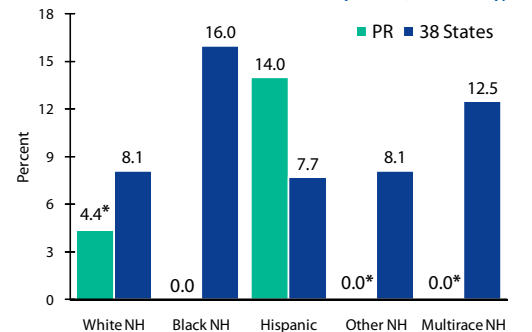
Adult Current Asthma Prevalence by Race/Ethnicity, BRFSS, 2008



Although no statistically significant differences were found when race/ethnic groups were compared with non-Hispanic whites, the adult current asthma prevalence was 3.6% among non-Hispanic whites in Puerto Rico. Rates were higher among non-Hispanic blacks and non-Hispanic multirace persons throughout the U.S.

*The estimate is unstable.

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



Child current asthma prevalence was higher among non-Hispanic blacks and non-Hispanic multirace persons than non-Hispanic whites throughout the 38 participating states. Comparisons between race/ethnic groups in Puerto Rico were not reported due to sample size.

*The estimate is unstable.

National Center for Environmental Health

Division of Environmental Hazards and Health Effects



Asthma Hospitalizations

Puerto Rico Hospital Discharge Data, 2008

Territory-wide information on asthma-related hospital discharges is unavailable for Puerto Rico.

Asthma Deaths

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

Mortality data by race is unavailable for Puerto Rico. Asthma was the underlying cause of death for 94 adults and less than 10** children in Puerto Rico⁵. The age-adjusted mortality rate in Puerto Rico was 24.4/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 on use for adults with current asthma in Puerto Rico.

Patient Education: Adults with Current Asthma ⁶	Respondents	Yes
Ever taught how to recognize early signs or symptoms of an asthma episode	146	66%
Ever told what to do during an asthma attack	146	59%
Ever taught how to use a peak flow meter to adjust daily medications	146	39%
Ever given an asthma action plan	146	37%
Ever taken a course on how to manage asthma	150	13%

Medication Use: Adults with Current Asthma ⁶	Respondents	Yes
Used a prescription asthma medication in the past 3 months ⁷	150	59%

NOTES:

1. National Health Interview Survey (NHIS), 2008
2. 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).
3. State Hospital Discharge Data, 2008
4. 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 (*)
5. 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 (**)
6. Asthma Call-back Survey, 2009
7. 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.salud.gov.pr/Programas/ProgramaMadresNinosAdolescentes/Pages/ProgramadeASMA.aspx>