

# Asthma in West Virginia

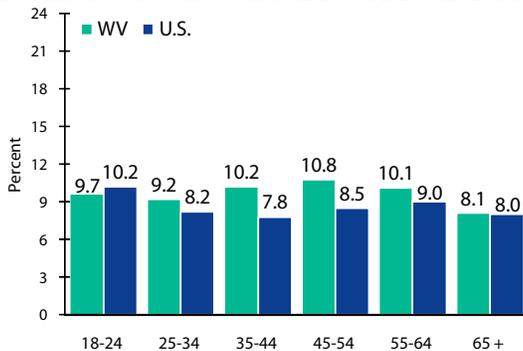
Asthma is a chronic lung disease that affects an estimated 16.4 million adults (aged  $\geq 18$  years)<sup>1</sup> and 7.0 million children (aged  $< 18$  years)<sup>1</sup> in the United States (U.S.), regardless of age, sex, race, or ethnicity. Although the exact cause of asthma is unknown and it 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 West Virginia (WV) 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 137,715 adults in West Virginia had asthma. Adult lifetime asthma prevalence was 13.7% and adult current asthma prevalence was 9.6% compared with U.S. rates of 13.3% and 8.5%, respectively<sup>2</sup>.

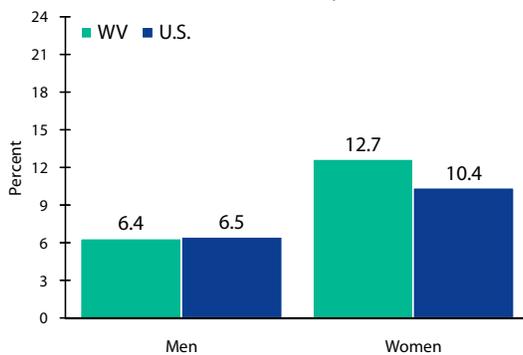
In 2008, an estimated 43,465 children in West Virginia had asthma. Child lifetime asthma prevalence was 14.7% and child current asthma prevalence was 11.5% compared with the 38 participating states' rates of 13.3% and 9.0%, respectively<sup>2</sup>.

Adult Current Asthma Prevalence by Age, BRFSS, 2008



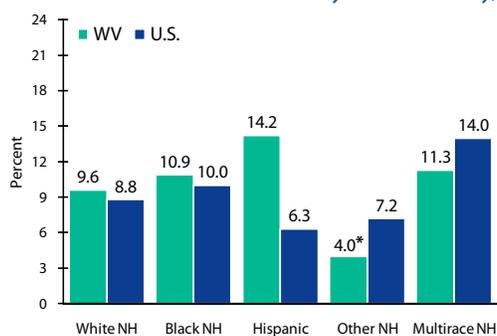
Adult current asthma prevalence was similar among all age groups when compared with adults aged 18-24 years in West Virginia; however, the rate was highest among adults aged 18-24 years throughout the U.S.

Adult Current Asthma Prevalence by Sex, BRFSS, 2008



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

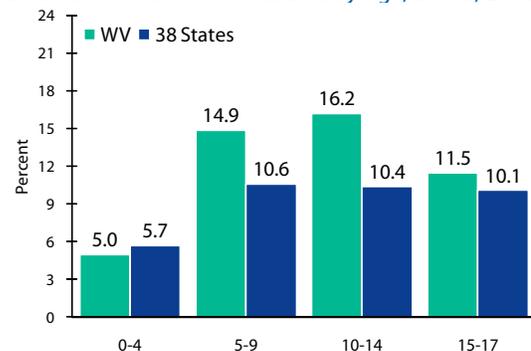
Adult Current Asthma Prevalence by Race/Ethnicity, BRFSS, 2008



Adult current asthma prevalence was similar among all race/ethnic groups when compared with non-Hispanic whites in West Virginia; however, rates were higher among non-Hispanic multirace persons and non-Hispanic blacks throughout the U.S.

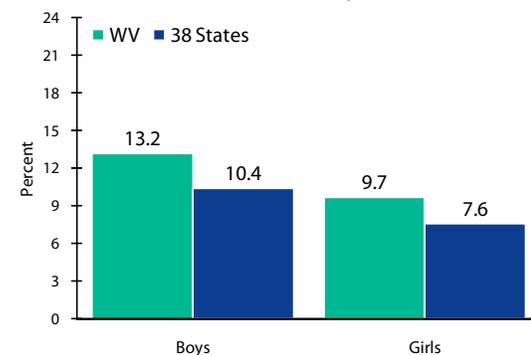
\*The estimate is unstable.

Child Current Asthma Prevalence by Age, BRFSS, 2008



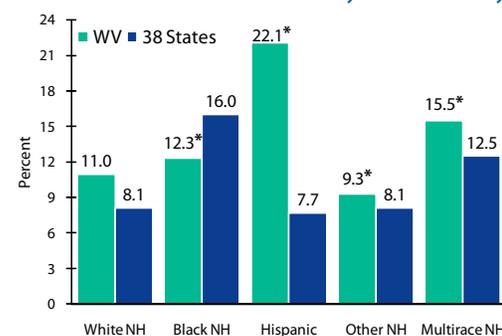
Child current asthma prevalence was similar among all age groups when compared with children aged 15-17 years in West Virginia; however, the rate was lower among children aged 0-4 years throughout the 38 participating states.

Child Current Asthma Prevalence by Sex, BRFSS, 2008



Child current asthma prevalence was similar among boys and girls in West Virginia; however, the rate was higher among boys throughout the 38 participating states.

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 West Virginia were not reported due to sample size.

\*The estimate is unstable.

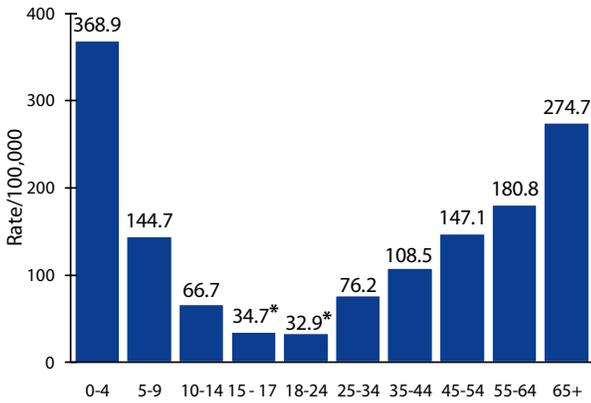
National Center for Environmental Health

Division of Environmental Hazards and Health Effects



### Asthma Hospitalizations

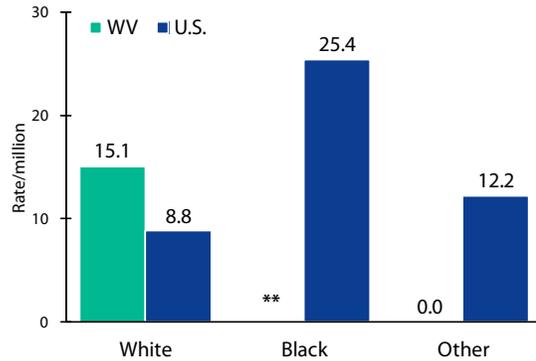
West Virginia Hospital Discharge Data, 2008



The age-adjusted asthma hospitalization rate in West Virginia was 143.6/100,000 persons<sup>3</sup> compared with the U.S. rate of 144/100,000 persons<sup>4</sup>. In West Virginia, the hospitalization rate for children was 164.7/100,000 persons<sup>3</sup> and for adults was 147.7/100,000 persons<sup>3</sup>.  
\*The estimate is unstable.

### Asthma Deaths

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



Asthma was the underlying cause of death for 32 adults and less than 10\*\* children in West Virginia<sup>5</sup>. The age-adjusted mortality rate in West Virginia was 16.5/million and the U.S. rate was 11.0/million<sup>5</sup>.  
\*\*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 West Virginia.

| Patient Education: Adults with Current Asthma <sup>6</sup>                | Respondents | Yes |
|---|-------------|-----|
| Ever taught how to recognize early signs or symptoms of an asthma episode | 246         | 57% |
| Ever told what to do during an asthma attack                              | 244         | 73% |
| Ever taught how to use a peak flow meter to adjust daily medications      | 247         | 33% |
| Ever given an asthma action plan  | 243         | 16% |
| Ever taken a course on how to manage asthma                               | 248         | 11% |

| Medication Use: Adults with Current Asthma <sup>6</sup>                 | Respondents | Yes |
|---|-------------|-----|
| Used a prescription asthma medication in the past 3 months <sup>7</sup> | 239         | 63% |

**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.