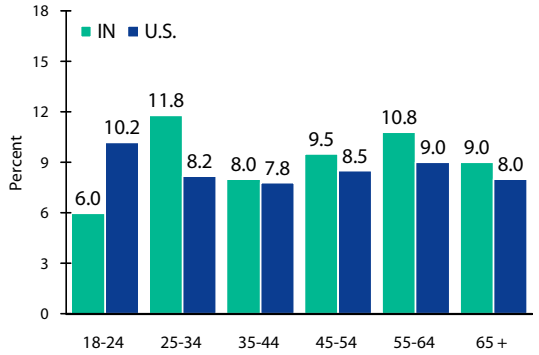
Asthma in Indiana

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 Indiana (IN) 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

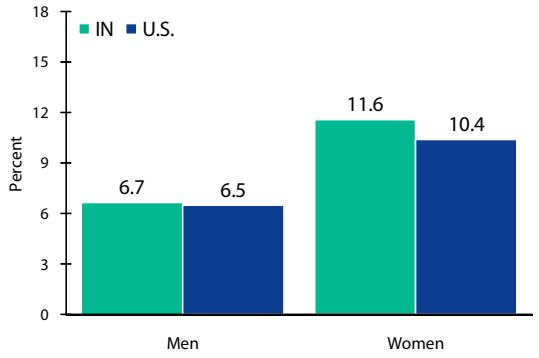
In 2008, an estimated 432,806 adults in Indiana had asthma. Adult lifetime asthma prevalence was 13.7% and adult current asthma prevalence was 9.2% compared with U.S. rates of 13.3% and 8.5%, respectively[2].

Adult Current Asthma Prevalence by Age, BRFSS, 2008



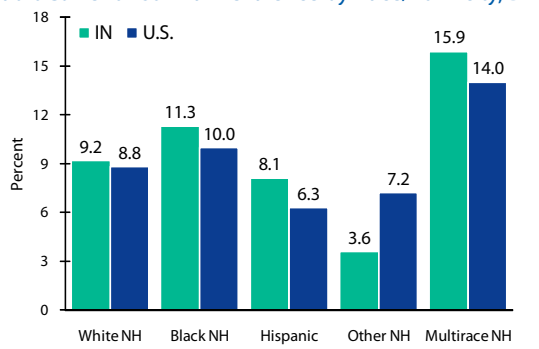
Adult current asthma prevalence was higher among adults aged 25-34 and 55-64 years than adults aged 18-24 years in Indiana; however, the rate was highest among adults aged 18-24 years throughout the U.S.

Adult Current Asthma Prevalence by Sex, BRFSS, 2008



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

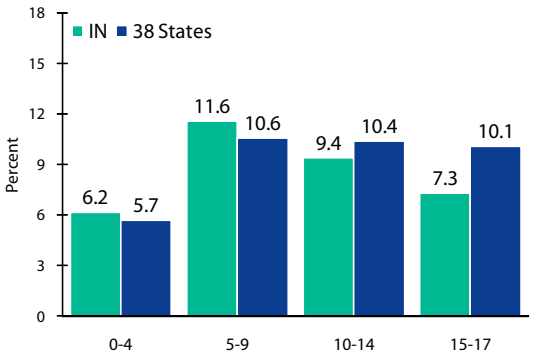
Adult Current Asthma Prevalence by Race/Ethnicity, BRFSS, 2008



Adult current asthma prevalence was lower among non-Hispanic persons of other races than non-Hispanic whites in Indiana; however, rates were higher among non-Hispanic multirace persons and non-Hispanic blacks throughout the U.S.

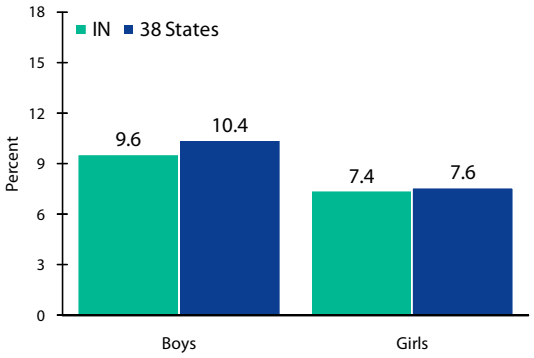
In 2008, an estimated 134,485 children in Indiana had asthma. Child lifetime asthma prevalence was 12.9% and child current asthma prevalence was 8.6% compared with the 38 participating states' rates of 13.3% and 9.0%, respectively[2].

Child Current Asthma Prevalence by Age, BRFSS, 2008



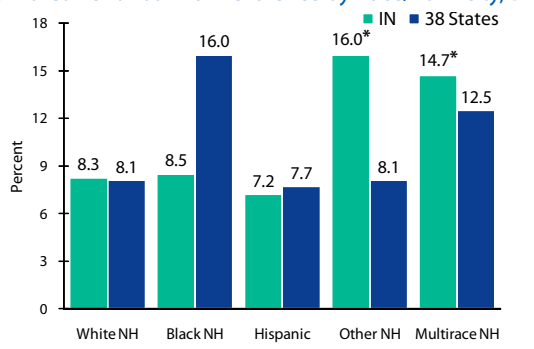
Child current asthma prevalence was similar among all age groups when compared with children aged 15-17 years in Indiana; however, the rate was lower among children aged 0-4 years throughout the 38 participating states.

Child Current Asthma Prevalence by Sex, BRFSS, 2008



Child current asthma prevalence was similar among boys and girls in Indiana; 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 similar among all race/ethnic groups when compared with non-Hispanic whites in Indiana; 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

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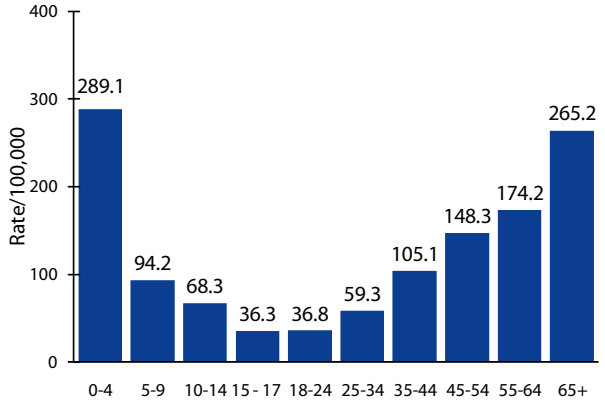
Asthma Hospitalizations

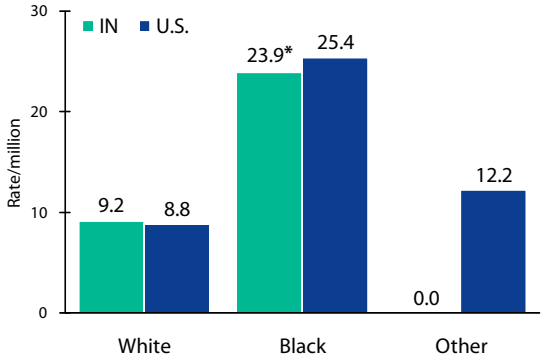
Indiana Hospital Discharge Data, 2008



The age-adjusted asthma hospitalization rate in Indiana was 130.9/100,000 persons[3] compared with the U.S. rate of 144/100,000 persons[4]. In Indiana, the hospitalization rate for children was 131.6/100,000 persons[3] and for adults was 134.2/100,000 persons[3].

Asthma Deaths

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



Asthma was the underlying cause of death for 64 adults and less than 10 children in Indiana[5]. The age-adjusted mortality rate in Indiana was 10.3/million and the U.S. rate was 11.0/million[5].
**The estimate is unstable.*

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 Indiana.

Patient Education: Adults with Current Asthma[6]	Respondents	Yes
Ever taught how to recognize early signs or symptoms of an asthma episode	236	64%
Ever told what to do during an asthma attack	236	77%
Ever taught how to use a peak flow meter to adjust daily medications	237	48%
Ever given an asthma action plan	231	29%
Ever taken a course on how to manage asthma	240	5%

Medication Use: Adults with Current Asthma[6]	Respondents	Yes
Used a prescription asthma medication in the past 3 months[7]	238	67%

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, 2008
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.in.gov/isdh/24965.htm