Asthma in Missouri

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 Missouri (MO) 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 377,375 adults in Missouri had asthma. Adult lifetime asthma prevalence was 13.6% and adult current asthma prevalence was 8.4% compared with U.S. rates of 13.3% and 8.5%, respectively.**

**Adult Asthma Prevalence by Age, BRFSS, 2008**

- **18-24**: MO 8.5%, U.S. 10.2%
- **25-34**: MO 6.9%, U.S. 7.4%
- **35-44**: MO 8.2%, U.S. 7.8%
- **45-54**: MO 8.5%, U.S. 10.8%
- **55-64**: MO 9.0%, U.S. 9.1%
- **65+**: MO 8.0%, U.S. 7.8%

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

**Adult Asthma Prevalence by Sex, BRFSS, 2008**

- **Men**: MO 6.7%, U.S. 10.0%
- **Women**: MO 10.0%, U.S. 10.4%

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

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

- **White NH**: MO 8.1%, U.S. 8.8%
- **Black NH**: MO 8.8%, U.S. 9.3%
- **Hispanic**: MO 10.0%, U.S. 11.0%
- **Other NH**: MO 6.3%, U.S. 6.3%
- **Multirace NH**: MO 14.0%, U.S. 11.1%

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

**Child Asthma Prevalence by Age, BRFSS, 2008**

- **0-4**: MO 8.0%, U.S. 5.7%
- **5-9**: MO 11.2%, U.S. 10.6%
- **10-14**: MO 11.2%, U.S. 10.4%
- **15-17**: MO 12.4%, U.S. 10.1%

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

**Child Asthma Prevalence by Sex, BRFSS, 2008**

- **Boys**: MO 12.0%, U.S. 10.2%
- **Girls**: MO 10.4%, U.S. 8.2%

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

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

- **White NH**: MO 8.3%, U.S. 8.1%
- **Black NH**: MO 22.6%, U.S. 16.0%
- **Hispanic**: MO 16.0%, U.S. 9.3%
- **Other NH**: MO 9.3%, U.S. 7.7%
- **Multirace NH**: MO 12.5%, U.S. 8.1%

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

*The estimate is unstable.*
The age-adjusted asthma hospitalization rate in Missouri was 133.2/100,000 persons compared with the U.S. rate of 144/100,000 persons. In Missouri, the hospitalization rate for children was 181.3/100,000 persons and for adults was 118.7/100,000 persons.

Asthma was the underlying cause of death for 65 adults and less than 10 children in Missouri. The age-adjusted mortality rate in Missouri was 11.6/million and the U.S. rate was 11.0/million.

**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 Missouri.

<table>
<thead>
<tr>
<th>Patient Education: Adults with Current Asthma</th>
<th>Respondents</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever taught how to recognize early signs or symptoms of an asthma episode</td>
<td>238</td>
<td>60%</td>
</tr>
<tr>
<td>Ever told what to do during an asthma attack</td>
<td>243</td>
<td>68%</td>
</tr>
<tr>
<td>Ever taught how to use a peak flow meter to adjust daily medications</td>
<td>240</td>
<td>33%</td>
</tr>
<tr>
<td>Ever given an asthma action plan</td>
<td>240</td>
<td>23%</td>
</tr>
<tr>
<td>Ever taken a course on how to manage asthma</td>
<td>243</td>
<td>5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medication Use: Adults with Current Asthma</th>
<th>Respondents</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used a prescription asthma medication in the past 3 months</td>
<td>237</td>
<td>73%</td>
</tr>
</tbody>
</table>

### 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
   When estimates are based on fewer than 60 hospitalizations, they are considered unstable and should be interpreted with caution. Indicated with an asterisk (*)
   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 (**)  
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.health.mo.gov/living/healthcondiseases/chronic/asthma/index.php