

Asthma in Minnesota

What is Asthma?

Asthma is a chronic respiratory disease that involves episodes of tightening of the muscles around the airways in the lungs (*bronchoconstriction*), swelling of the bronchial tubes (*inflammation*), and increased mucus production. A variety of factors can trigger an asthma episode or attack, such as viral infections, allergens (like pollen and dust mites), irritants (like second-hand smoke and air pollution), and other factors (like aspirin and stress).

Asthma is one of the most common chronic diseases in the United States. An estimated 24.6 million Americans currently have asthma, including 7.1 million children under the age of 18.¹ Asthma disproportionately impacts women, children, and the poor.

Asthma can range from relatively mild to quite severe. It is the third leading cause of hospitalizations in children under 15.² Asthma is associated with missed school days, missed workdays, disrupted sleep and symptoms that interfere with physical activity. It can be fatal. In 2009, asthma accounted for 444,000 hospitalizations and 1.7 million emergency department visits across the country. In 2007, 3,447 people died of asthma.¹

Costs of Asthma

Nationwide, asthma costs \$20.7 billion per year, including \$15.6 billion in direct and \$5.1 billion in indirect costs.¹ In Minnesota, it is estimated that, in 2004, asthma cost \$240 million directly in hospitalizations, emergency department visits, office visits, and medications, and \$181 million indirectly in lost school and work days, for total of \$421 million.³



Asthma Program
85 E. 7th Pl.
P.O. Box 64882
St. Paul, MN 55164-0882
651-201-5909
www.health.state.mn.us

Minnesota Statistics

- 8.7% of children (age 0-17) have been diagnosed with asthma at some point in their lives.⁴
- ***One in 16 children (approx. 76,000) currently have asthma.***⁴
- The percentage of children with asthma (6.0%) is lower than the national average (9.0%).⁴
- 15.1% of students in grade 6, 17.7% in grade 9, and 18.4% in grade 12 report that they have a history of asthma⁵
- 9.6% of adults have been diagnosed with asthma at some point in their lives.⁶
- ***One in 15 adults (approx. 260,000) report that they currently have asthma.***⁶
- The percentage of adults with asthma (6.6%) is lower than the national average (8.8%).⁶
- Adults living in the Minneapolis-St. Paul metro area are more likely to have asthma than residents of Greater Minnesota (7.7% vs. 5.5%).⁶
- Women are more likely than men to report that they have asthma (7.7% vs. 5.5%).⁶
- Adults with asthma are more likely than those without asthma to:
 - Report that their health is fair or poor
 - Experience activity limitations
 - Be obese⁶
- Rates of hospitalizations and emergency department visits for asthma are highest for:
 - Children less than 5 years old
 - Residents of the Minneapolis-St. Paul metropolitan area.⁷
- In 2009, 60 residents died of asthma; 58% were 65 and older and 55% were women.⁸

— over —

Asthma in Minnesota – page 2

Asthma Management

Control of asthma is defined as the absence of symptoms and acute episodes; no use of relief medication; no emergency department visits; normal activity level, including exercise; and normal lung function.

Control of asthma can be achieved through the implementation of an effective asthma management program, which includes the following:

- Educate patients to develop a partnership in asthma management, including use of a written asthma action plan.
- Assess and monitor control by measuring lung function and tracking symptoms.
- Avoid or control factors that cause asthma.
- Establish medication plans for long-term management.
- Establish plans for managing asthma episodes.
- Provide regular follow-up care.
- Reassess control levels with each visit.

Two types of medications are used to treat asthma:

Long-term controller medications such as inhaled corticosteroids reduce bronchial inflammation and prevent excess mucus production.

Quick relief medications (short-acting bronchodilators) work fast to treat episodes before they occur (as with exercise induced asthma) or relieve symptoms as they happen.

For More Information

Minnesota Asthma Program
85 E. 7th Pl.
P.O. Box 64882
St. Paul, MN 55164-0882
www.health.state.mn.us/asthma/
Phone: 651-201-5909
Toll Free: 1-877-925-4189

Addressing Asthma in Minnesota

Since 1999, MDH's Asthma Program has:

- Developed a state asthma plan to address the increasing health and economic burden of asthma in Minnesota. The state plan was updated in 2007.
- Collaborated with the American Lung Association of Minnesota to establish the Minnesota Asthma Coalition to provide support for local asthma awareness and prevention efforts throughout the state.
- Established an asthma surveillance system to better understand the scope of asthma in Minnesota.
- Created an online and downloadable interactive Asthma Action Plan (iAAP) for use by providers in assessing asthma.
- Developed an online asthma education program for coaches, physical education teachers, and referees.
- Trained more than 900 school personnel to better manage asthma in Minnesota schools.
- Developed a program of low-cost environmental home interventions for children with asthma.
- Provided a newsletter and website.

References

1. Trends in Asthma Morbidity and Mortality, American Lung Association, February 2010
<http://www.lungusa.org>
2. Asthma & Children Fact Sheet, American Lung Association, February 2010
<http://www.lungusa.org>
3. Asthma Care Quality Improvement: A Resource Guide for State Action, Agency for Healthcare Research & Quality (AHRQ)
http://www.ahrq.gov/qual/asthmacare/asthmatable1_3.htm
4. National Survey of Children's Health, 2007
<http://www.nschdata.org>
5. Minnesota Student Survey, 2010
6. Minnesota Behavioral Risk Factor Surveillance System, 2009
7. Minnesota Hospital Association, 2009
8. Minnesota Center for Health Statistics, 2009

If you require this document in another format, such as large print, Braille or cassette tape, call 651-201-5797.