

Asthma in Minnesota

What is Asthma?

Asthma is a chronic disease of the respiratory system characterized by episodes of tightening of the muscles around the airways in the lungs (bronchoconstriction) and swelling of the bronchial tubes (inflammation). A variety of factors can trigger an asthma episode or attack, including 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. 22.2 million Americans currently have asthma, including an estimated 6.5 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 and 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 2004, asthma accounted for nearly 500,000 hospitalizations and 1.8 million emergency department visits across the country. In 2003, 4,099 people died of asthma.¹

Costs of Asthma

Nationwide, asthma costs \$16.1 billion per year, including \$11.5 billion in direct and \$4.6 billion in indirect costs.¹ In Minnesota, it is estimated that asthma cost \$208.6 million in hospitalizations, emergency department visits, office visits and medications, and \$155 million in indirect costs of lost school and work days in 2003.³



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

- 9.5% of children have been diagnosed with asthma at some point in their lives.⁴
- ***One in 15 children (an estimated 80,000) currently have asthma.***⁴
- Among children with asthma, more than half had an asthma attack in the past year.⁵
- 11.8% of adults have been diagnosed with asthma at some point in their lives.⁶
- ***One in 12 adults (approximately 320,000) report that they currently have asthma.***⁶
- The percentage of Minnesota adults with asthma (8.4%) is slightly higher than the national average (8.0%).⁶
- More than half of adults with asthma report having an asthma attack in the past year.⁶
- Adults living in the Minneapolis-St. Paul metro area are more likely to have asthma than residents of Greater Minnesota (10.3% vs. 6.6%).⁶
- Women are more likely than men to report that they have asthma (10.6% vs. 6.1%).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
 - Children less than 5 years old
 - Residents of the Minneapolis-St. Paul metropolitan area.⁷
- In 2005, 67 Minnesotans died of asthma; 66% were 65 and older and the majority were women.⁸

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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 severity 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.
- Developed an asthma education program for coaches.
- 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.

References

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3. Asthma Care Quality Improvement: A Resource Guide for State Action, Agency for Healthcare Research & Quality, 2003 <http://www.ahrq.gov>
4. Minnesota Behavioral Risk Factor Surveillance System, 2004
5. National Survey of Children's Health, 2003 <http://nschdata.org/Content/Default.aspx>
6. Minnesota Behavioral Risk Factor Surveillance System, 2005
7. Minnesota Hospital Association, 2005
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If you require this document in another format, such as large print, Braille or cassette tape, call 651-201-5797.