

EXECUTIVE SUMMARY

Asthma is one of the most common chronic diseases in the United States, characterized by inflammation and narrowing of the airways. Asthma accounted for 490,000 hospitalizations and 1.8 million visits to the emergency room nationally in 2005. Asthma is a cause of missed days from school and work, interrupted sleep and limited physical activity. While it cannot be cured, it can be controlled through adequate access to medical care, medications and self-management.

The Minnesota Department of Health Asthma Program has established an asthma surveillance system to better understand and describe the burden of asthma in Minnesota. Tracking different aspects of asthma—the number of people with the disease, visits to the hospital and the emergency room, quality of life, and mortality—are important guides to planning education and intervention programs and to developing policies that are necessary for preventing and controlling asthma in the future.

Since the 2005 “*Asthma in Minnesota*” report, a number of new data sources have become available to add to the picture of asthma in Minnesota, including statewide data on asthma prevalence in children from the Behavioral Risk Factor Surveillance System (BRFSS); data on asthma prevalence among middle and high school students from the Minnesota School Survey; data on tobacco use, secondhand smoke and asthma from the Minnesota Youth Tobacco and Asthma Survey; and comprehensive data on asthma in adults and children from the Minnesota Asthma Callback Survey.

The new data add much to our knowledge of asthma in Minnesota; however, the picture remains incomplete. A continuing gap is the lack of data on rates of asthma-related hospitalizations and emergency department visits by race and ethnicity that would increase our understanding of disparities in the burden of asthma. Other gaps include the lack of data on asthma rates at the community or neighborhood level.

Overall, many of the measures of the burden of asthma have improved since the 2005 report. Asthma hospitalization rates have declined in the Twin Cities metro area, particularly among children. Asthma mortality rates have decreased dramatically. However, there is still much work to be done, both in terms of improving the quality of life for people with asthma and improving the data that is used to track the impact of that work.

Key Findings:

ADULTS WITH ASTHMA

- An estimated 10.9% of Minnesota adults age 18 and older report having ever been told by a doctor they had asthma, while 7.7% currently have asthma. That translates to an estimated 429,000 Minnesota adults who have a history of asthma and an estimated 303,000 who currently have asthma.
- The percentage of Minnesota adults who currently have asthma has increased since 2000; this may be due to a true increase in new asthma cases and/or increased awareness and diagnosis of asthma.
- Women are more likely than men to report having asthma.
- Adults living in the Twin Cities metropolitan area are more likely to report having asthma than adults in Greater Minnesota.

CHILDREN WITH ASTHMA

- An estimated 9.5% of Minnesota children under the age of 18 have ever been told by a doctor they had asthma, while approximately 7.0% currently have asthma. That translates to an estimated 116,000 Minnesota children with a history of asthma and an estimated 85,000 who currently have asthma.

ASTHMA CONTROL

- 33.0% of adults with asthma and 66.4% of children with asthma report that they had been free of symptoms of asthma in the past two weeks

ASTHMA SELF-MANAGEMENT EDUCATION

- 34.2% of adults and 51.4% of children with asthma report ever having been given an asthma action plan, a key tool in asthma self-management

ASTHMA MANAGEMENT

- 52.7% of adults and 73.8% of children with asthma report having had a routine checkup for asthma in the past year
- 49.5% of adults and 51.4% of children with asthma report having had a flu shot in the past year

ENVIRONMENTAL FACTORS THAT AFFECT ASTHMA

- 42.9% of adults and 25.7% of children with asthma have been advised by a healthcare professional to change things in their home, school or work to improve their asthma

CO-MORBID CONDITIONS THAT AFFECT ASTHMA

- 32.7% of adults with asthma also report a diagnosis of depression
- 29.5% of adults with asthma also report a diagnosis of chronic obstructive pulmonary disease

RISK FACTORS ASSOCIATED WITH ASTHMA

- Adults with asthma are just as likely as adults without asthma to be smokers (19.3% vs. 18.4%)
- High school students with asthma are more likely to smoke than their peers who do not have asthma (23.4% vs. 15.5%).
- Middle and high school students with asthma are more likely than students without asthma to be exposed to secondhand smoke.
- Adults with asthma are more likely to be obese than adults without asthma (30.7% vs. 23.6%).

COSTS OF CARE

- Asthma cost Minnesota an estimated \$363.9 million in 2003, including \$208.6 million in direct costs of office visits, ED visits, hospitalizations and medication, and \$155.3 in indirect costs of missed school and work days.
- Approximately 4% of adults and 9% of children with asthma do not have health insurance.

WORK-RELATED ASTHMA

- 53.3% of adults with asthma report that their asthma was caused or is aggravated by a current or previous job.

ASTHMA-RELATED EMERGENCY DEPARTMENT VISITS AND HOSPITALIZATIONS

- There were more than 15,800 emergency department visits for asthma in 2006.
- Rates of asthma hospitalizations have been declining since 1999 toward the CDC target of 7.9 visits per 10,000 population.

ASTHMA MORTALITY

- Asthma mortality rates have decreased dramatically since 1999 with the greatest declines among those 65 and older.
- In 2006, there were 47 deaths due to asthma among Minnesota residents, down from 104 in 1999.

From: "Asthma in Minnesota: 2008 Epidemiology Report. Minnesota Department of Health. St. Paul, MN. December 2008." The full report can be accessed on the web at:

<http://www.health.state.mn.us/divs/hpcd/cdee/asthma/documents/asthmaepireport08.pdf>