

DESCRIPTION

Asthma is a chronic disease of the airways. It involves frequent episodes, or attacks, where the airways in the lungs swell and shrink. During the attack less air gets in and out of the lungs. In addition, more mucous is created by the body, which further clogs the airways.¹ “Asthma Triggers” is a term that refers to substances, activities, or environmental factors that can bring on an asthma attack. Asthma triggers can be found inside or outside the home. Some common triggers are tobacco smoke, household chemicals, pet dander, roaches, dust mites, mold, fragrances and environmental pollution.

HOW WE ARE DOING

About 7.5 percent of Minnesota adults and 10.6 percent of middle school and high school students currently have asthma.² An average of 16.5 percent of Ramsey County 5th, 8th, 9th and 11th graders self-reported that a doctor or nurse had told them they have asthma.³ A primary indicator of serious exposures to asthma triggers is found in the number of asthma-related hospitalizations and emergency department visits (which are not admitted to the hospital). From 2012-2016, Ramsey County had an average of 3,069 residents each year who visited an emergency department (ED) or were hospitalized for asthma.⁴ During 2013-2015, the three-year age-adjusted hospitalization rate for Minnesota is 5.6 per 10,000, compared to a higher rate among Ramsey County residents of 7.7. These overall rates meet the Healthy People goal, however the childhood rates tell a different story. Among Ramsey County youth ages 5 to 19, the asthma hospitalization rate is much higher at 15.4 per 10,000. Emergency department visits among all Ramsey County residents was 60.1 per 10,000 residents, which was higher than the Minnesota rate of 39.1.²

BENCHMARK INDICATOR

HP 2020: Reduce hospitalizations for asthma.

U.S. Target: 8.7 per 10,000 population.⁵

DISPARITIES

Asthma disproportionately impacts children, females, African-Americans, and people with low incomes.⁶ Across Minnesota, the likelihood of having asthma differs by race/ethnicity. There are significant differences in the rates of hospitalizations and emergency department visits for asthma by region of the state. Asthma hospitalization rates for children living in the Twin Cities metropolitan area are 67% higher than for children living in Greater Minnesota. Rates of ED visits for asthma for children living in the Twin Cities metro area are nearly twice as high as for children living in Greater Minnesota. In certain ZIP codes in metro area, hospitalization rates for asthma among children can be four times higher than the statewide rate.⁶

RISK FACTORS

Several risk factors affect the prevalence of asthma triggers. The condition of the home environment is the most important. Poor in-home sanitation is one of the leading risk factors to developing asthma. Living in an urban area increases exposure to higher levels of ozone.⁷ Additionally, proximity to highways will negatively affect the surrounding air

Information to note

- Ramsey County currently meets the Healthy People 2020 target for asthma hospitalization.
- Common asthma triggers in the home are tobacco smoke, household chemicals, pet dander, roaches, dust mites, mold, and fragrances.
- There is a higher prevalence of asthma among black youth and adults.

¹ Learn how to control Asthma. Centers for Disease Control and Prevention. <https://www.cdc.gov/asthma/faqs.htm>. Accessed August 20, 2017.

² Minnesota Department of Health. Minnesota Public Health Data Access. https://data.web.health.state.mn.us/web/mndata/asthma_query. Accessed June 1, 2018.

³ Minnesota Department of Health. Minnesota Student Survey. Saint Paul – Ramsey County Public Health data set.

⁴ Minnesota Hospital Association. Saint Paul – Ramsey County Public Health data set.

⁵ Centers for Disease Control and Prevention. Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives>. Accessed March 2018.

⁶ Minnesota Department of Health. Asthma program quick facts – Asthma in Minnesota. <http://www.health.state.mn.us/asthma/>. Accessed June 1, 2018.

⁷ Allergens and Allergic Asthma. Asthma and Allergy Foundation of America. <http://www.aafa.org/page/allergic-asthma.aspx>. Accessed April 27, 2018.

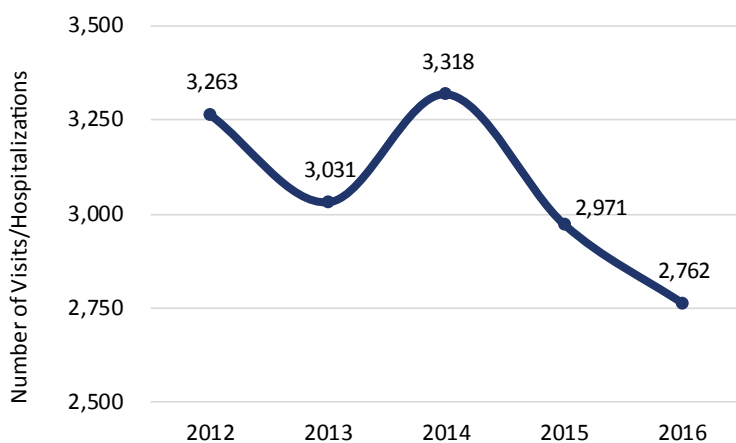
quality.⁸ Respiratory complications-such as pneumonia, COPD, and infections are other risk factors.

WHAT RAMSEY COUNTY GOVERNMENT IS DOING

Ramsey County partners with local hospitals, clinics, schools, and community development nonprofits to connect with households where children are affected by asthma. Saint Paul – Ramsey County’s Healthy Homes intervention program helps children receive individualized health education and also supplies the family with products to help create a cleaner home environment. Environmental health inspectors and public health nurses identify in-home asthma triggers that can cause or exacerbate asthma symptoms. During this assessment, families are provided patient-specific asthma education, strategies to effectively manage their asthma, and products to minimize triggers.

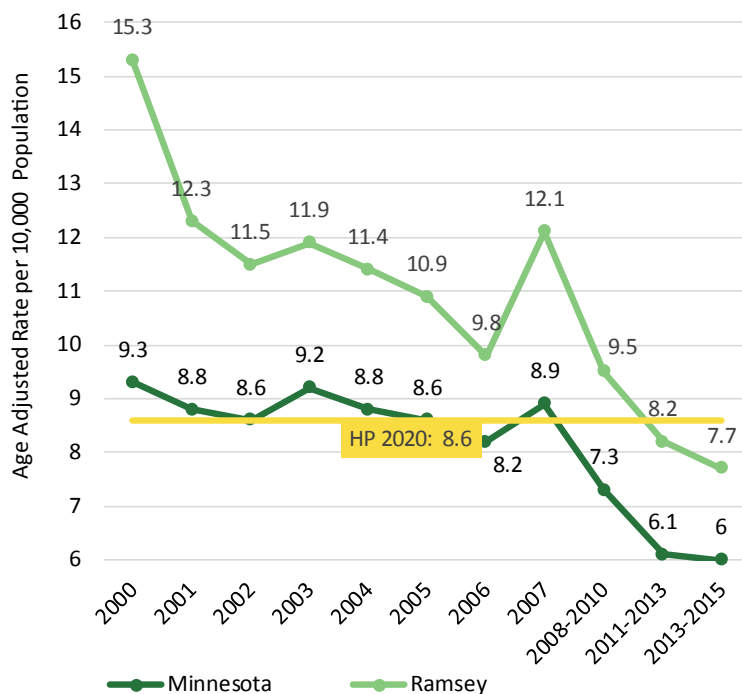
The Healthy Homes program targets areas in the county that have aging housing stock, have lower income residents, and have residents who are at highest risk for asthma related hospitalizations. In 6-month follow up meetings, families enrolled in the program report less frequent use of prednisone or nebulizers and less school days missed due to asthma. They also reduced (or all together eliminated) any asthma-related hospitalizations or ED visits.

Asthma Emergency Department Visits or Hospitalizations, Ramsey County Residents, 2012-2016



Source: MN Hospital Association. Saint Paul - Ramsey County Public Health data set.

Asthma Hospitalizations Ramsey County and Minnesota, 2000 - 2015



Source: Minnesota Department of Health.⁹

⁸ Benson L. In the Twin Cities, asthma hospitalization rate highest along I-94, here’s why. MPR news 2014. <https://www.mprnews.org/story/2014/07/08/for-some-asthma-patients-smoking-housing-conditions-and-uneven-insurance-are-a-deadly-mix>. Published July 8, 2014. Accessed June 2018.

⁹ Source: MDH MN Public Health Data Access. https://data.web.health.state.mn.us/web/mndata/asthma_hosp. Accessed June 1, 2018.