

BACKGROUND

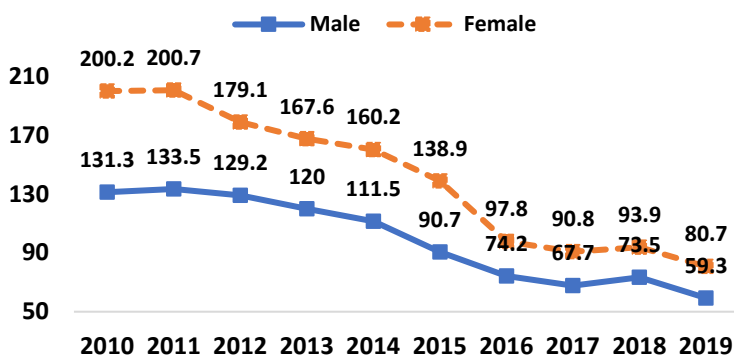
Asthma is a lung disease characterized by wheezing, breathlessness, chest tightness, and coughing. The cause of asthma is unclear, but triggers such as pollen, animal dander, mold, cockroaches, dust mites, tobacco smoke, certain foods and medication have been associated with it. Asthma has no cure, but it can be controlled by taking medicine and avoiding the triggers.

WHO DOES THE ISSUE IMPACT?

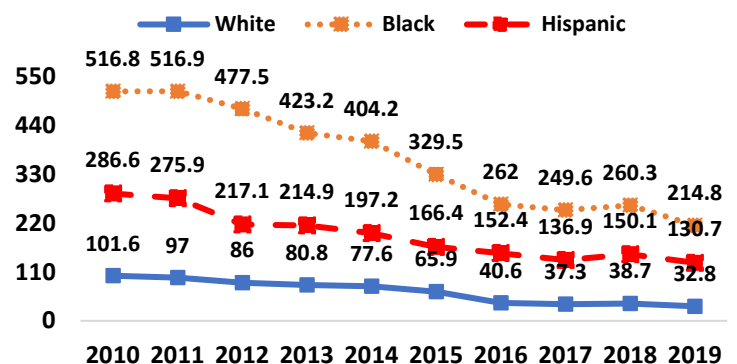
Asthma can affect people at all ages. In Pennsylvania, over the 10-year period of 2010 to 2019, the age-adjusted asthma hospitalization rate declined 58%, dropping from 167.9 to 70.6 per 100,000. The rate was generally higher in females than in males. The rate dropped 60% in females (from 200.2 to 80.7 per 100,000) and 55% in males (from 131.3 to 59.3 per 100,000). By race and ethnicity, the asthma hospitalization rate was highest in non-Hispanic Blacks, followed by Hispanics and non-Hispanic Whites. The rates dropped 68%, 58%, and 54% in Whites, Blacks, and Hispanics respectively between 2010 to 2019. In 2019, the asthma hospitalization rate was 32.8 per 100,000 in Whites, 214.8 per 100,000 in Blacks, and 130.7 per 100,000 in Hispanics. By sex and race/ethnicity, in 2019 the asthma hospitalization rate was highest in Black females (245.1 per 100,000), followed by Black males (177 per 100,000), Hispanic females (159.8 per 100,000), Hispanic males (98.1 per 100,000), White females (39.7 per 100,000), and White males (25.4 per 100,000). The hospitalization rate declined across all subgroups from 2010 to 2019. The hospitalization rate declined across all age groups from 2010 to 2019 as follows: 47% in people less than 20 years of age, 54% in people 20 to 44 years, 66% in people 45 to 64 years, 75% in people 65 to 84 years, and 78% in people 85 years or older. In 2019, the asthma hospitalization rate was 112.2 per 100,000 among people less than 20 years of age, 43.9 per 100,000 among people aged 20 to 44 years, 60.5 per 100,000 among people aged 45 to 64 years, 57.4 per 100,000 among people aged 65 to 84 years, and 65.0 per 100,000 among people aged 85 years or older.

Among children and adolescents younger than 18 years of age, the asthma hospitalization rate declined from 230.6 to 122.5 per 100,000 from 2010 to 2019. The rate declined 52% in boys (dropping from 260.7 to 126.2 per 100,000) and 51% in girls (dropping from 185.7 to 90.2 per 100,000). By age group, the decreases were as follows: 53% in children less than 5 years of age (dropping from 463.6 to 217.4 per 100,000); 42% in children 5 – 9 years of age (dropping from 224.8 to 131.0 per 100,000); 41% in children 10 – 14 years of age (dropping from 126.0 to 73.8 per 100,000); and 37% in adolescents 15 – 17 years of age (dropping from 70.5 to 44.1 per 100,000). By race/ethnicity, the rate decreased 48.5% in non-Hispanic Whites (dropping from 89.5 to 46.1 per 100,000), 54.2% in non-Hispanic Blacks (dropping from 733.5 to 336.1 per 100,000), and 47.3% in Hispanics (dropping from 367.4 to 193.6 per 100,000).

Age-adjusted Asthma Hospitalization Rate (per 100,000) by Sex, PA, 2010-2019



Age-adjusted Asthma Hospitalization Rate (per 100,000) by Race/Ethnicity, PA, 2010-2019



With the decrease in the asthma hospitalization rate, the total charges (excluding professional fees) for asthma hospitalizations in PA decreased from approximately \$492 million in 2010 to \$296 million in 2019. However, the total charges per asthma hospitalization increased from \$23,384 in 2010 to \$34,597 in 2019, up nearly 50%.

The average length of stay (LOS) for hospitalizations due to asthma as the primary discharge diagnosis decreased slightly from 3.4 days in 2010 to 2.8 days in 2019. The average LOS for asthma was longer in adults aged 18 years or older (3.3 days) than in children less than 18 years of age (1.9 days) in 2019. The average LOS was longer in females than in males (3.2 days vs. 2.3 days) in 2019. White patients had a longer average LOS of 3.1 days than Black patients (2.6 days) and Hispanic patients (2.5 days).

For asthma hospitalization, health insurance coverage remained relatively stable from 2010 to 2019. Medicare/Medicaid and private insurance paid for 70.0% and 25.2% of asthma hospitalizations in 2019, respectively. Uninsured asthma hospitalizations were 3.9% in 2019.

WHAT ARE WE DOING?

The Department of Health through a cooperative agreement with the Centers for Disease Control and Prevention (CDC) is working “to improve the reach, quality, effectiveness, and sustainability of asthma control services and to reduce asthma morbidity, mortality and disparities by implementing evidence-based strategies across multiple sectors.” The two main approaches of this work are 1) enhancing infrastructure and 2) leveraging partnerships to expand the six **EXHALE** strategies: **E**ducation on asthma self-management; **EX**tinguishing smoking and exposure to second-hand smoke; **H**ome visits for trigger reduction and asthma self-management education (AS-ME); **A**chievement of guidelines-based medical management; **L**inkages and coordination of care; and **E**nvironmental policies or best practices to reduce indoor and outdoor asthma triggers. In collaboration with multiple partners, the Department of Health is supporting asthma home visiting, asthma self-management education in schools and community locations, smoking cessation and outreach, quality improvement initiatives for physician practices and health systems, and policy education and outreach campaigns on topics such as second-hand smoke, school stock inhalers, and air quality. The Department of Health also facilitates the Pennsylvania Asthma Partnership, the development and implementation of the statewide Asthma Strategic Plan, and asthma surveillance.

WHAT CAN YOU DO?¹

- Take your medicine exactly as your doctor tells you and control your asthma by staying away from things that can trigger an attack.
- You can breathe in some medicines and take other medicines as a pill. Asthma medicines come in two types—quick-relief and long-term control. Quick-relief medicines control the symptoms of an asthma attack. If you need to use your quick-relief medicines more and more, visit your doctor to see if you need a different medicine. Long-term control medicines help you have fewer and milder attacks, but they don’t help you while you are having an asthma attack.
- Asthma medicines can have side effects, but most side effects are mild and go away quickly. Ask your doctor about the side effects of your medicines.
- Discuss with your doctor and make your own asthma action plan. Decide who should have a copy of your plan and where he or she should keep it. Take your long-term control medicine even when you don’t have symptoms.

RESOURCES FOR MORE INFORMATION

- Pennsylvania Department of Health Asthma Control Program:
<https://www.health.pa.gov/topics/programs/Asthma/Pages/Asthma.aspx>
- The Centers for Disease Control and Prevention Asthma Program:
<https://www.cdc.gov/asthma/default.htm>

If you have any questions, contact us at RA-DHPAAsthma@pa.gov.

¹ The Centers for Disease Control and Prevention. (2019, September 6). *Learn how to control asthma*. <https://www.cdc.gov/asthma/faqs.htm>
May 26, 2021