**Asthma** is a common chronic inflammatory disease that affects the airways and lungs, causing recurring periods of wheezing, chest tightness, coughing and shortness of breath. It is a serious public health concern that currently affects 10.3%, or approximately 770,000, of Indiana adults. More adult females (13.2%) than adult males (7.3%) currently have asthma. More multiracial non-Hispanic (NH) adults (20.2%) have a current asthma diagnosis than any other racial or ethnic group [Fig 1].

Since 2011, females have had higher rates of asthma emergency department (ED) visits than males [Fig 2]. In 2013, the age-adjusted asthma ED visit rates by sex were 55.0 per 10,000 Indiana adult females and 44.5 per 10,000 adult males. Females’ asthma ED visit rates have increased by 4.8% since 2011, while men’s asthma ED visit rates have increased by 8.5%.

**Asthma triggers**
The cause of asthma is unknown, but people with asthma have inflamed airways, which cause them to be more reactive and sensitive to triggers. Common triggers include:

- Allergens, such as pollen, pet hair or dander
- Changes in weather, usually cold weather
- Chemical irritants
- Cockroaches, dust mites and other pests
- Exercise
- Mold
- Outdoor air pollutants and ozone
- Respiratory infections, such as the common cold
- Stress
- Tobacco and wood smoke

**Emergency department (ED) visits**
ED visits declined from 2009 to 2011, but in 2013 increased 2.4% from 2012. During 2013:
- 31,307 ED visits were reported with a principal diagnosis of asthma.
- The overall age-adjusted rate was 49.9 asthma ED visits per 10,000 Indiana residents.
- 37% of asthma ED visits were for children (0–17 years).
- Black residents visited the ED for asthma at a higher rate (139.2 per 10,000) than white residents (33.2 per 10,000).

**Hospitalizations**
The 2013 rate of asthma hospitalizations was the lowest since 2009. During 2013:
- 7,200 primary diagnosis asthma hospitalizations occurred, down 6.6% from 2012.
- The overall age-adjusted rate is 10.6 asthma hospitalizations per 10,000 Indiana residents.
- Females had higher rates of hospitalization than males (13.3 versus 7.8 per 10,000).
- Black Indiana residents (27.5 per 10,000) were hospitalized more than 3 times more often than white residents (8.0 per 10,000).

**Mortality**
In 2013, 69 Indiana residents’ deaths had asthma listed as the leading cause of death.
- 16 were male and 53 were female
- 50 were white and 19 were black
- 50.7% were 65 years and older at time of death

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*Current asthma was measured by asking if the adult still had asthma.
Management of asthma among Indiana adults with a current asthma diagnosis

- Although asthma is rarely fatal, poorly controlled asthma can lead to decreased productivity, missed work and the inability to participate in daily activities.
  - 61.6% of adults with asthma missed a week or less of work due to their asthma in the past 12 months
  - 9.2% said their activity was limited a lot during the past 30 days, 11.5% had moderate activity limitations and 37.9% reported “a little” activity limitation

- Having and using an Asthma Action Plan is important for learning how to control asthma long-term and in recognizing early symptoms of an attack.
  - 25.5% had a health care professional give them an asthma action plan
  - 71% were taught how to recognize early signs or symptoms by a health care professional

- National asthma guidelines recommend persons with asthma seek at least two routine asthma visit per year.
  - 64.6% had at least 2 routine checkups in the past 12 months

TAKE ACTION: Steps you can take to prevent or control asthma

- Monitor your level of control with a validated control test such as the Asthma Control Test or the Asthma Control Questionnaire.
- During routine medical visits, talk with your health care provider about your asthma symptoms, triggers, medications and side effects.
- Identify and avoid asthma triggers that can cause symptoms or attacks.
- Avoid smoking and being around others who are smoking.
- Take medications as prescribed by your health care provider.
- Work with your health care provider to create an Asthma Action Plan—these plans include information concerning daily treatment, medications, short and long-term control measures and explain when to seek medical treatment.
- Ensure students and employees have immediate access to quick-relief medications.
- Encourage school staff, childcare providers and employers to maintain asthma friendly environments, such as: No-Idle Zones and Ozone Action Days.

Community resources

- To be connected with Indiana asthma programs and resources, visit the Indiana State Department of Health Asthma Program’s Resource Guide or call the Indiana Family Helpline at 1-855-Help-1ST (855-435-7178). Additional information can be found at the Asthma Community Network, Centers for Disease Control and Prevention and the American Lung Association in Indiana websites.
- To get help with tobacco cessation, call the Indiana Tobacco Quitline at 1-800-QUIT-NOW (800-784-8669) or visit www.quitnowindiana.com.
- The American Lung Association Asthma Clinical Research Centers regularly recruit asthma patients for their studies.
- AIRNow: an index for reporting daily air quality in local regions.
- To find participating American Lung Association Breathe Well, Live Well programs in your area, visit the In My Community page and enter your zip code.

References