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 10.0%, or approximately 506,500 of Indiana adults. More adult females (13.1%) than adult males (6.8%) currently have asthma*. More multiracial non-Hispanic (NH) adults (19.5%) have a current asthma diagnosis than any other racial or ethnic group [Fig 1].

Emergency department (ED) visits

Since 2014, females have had higher rates of asthma emergency department (ED) visits than males [Fig 2]. Within the last year females’ asthma ED visit rates have by 1.9% while mens’ asthma ED visit rates have remained the same. In 2017, the age-adjusted asthma ED visit rates by sex were 48.6 per 10,000 Indiana adult females and 40.2 per 10,000 adult males.²

Hospitalizations

Hospitalizations rates due to asthma have declined* since 2012. In 2017:
- 2,597 primary diagnosis asthma hospitalizations occurred, down 3.3% from 2016.
- The overall age-adjusted rate is 4.0 asthma hospitalizations per 10,000 Indiana residents.
- Females had higher rates of hospitalization than males (4.8 versus 3.2 per 10,000).
- Black Indiana residents (13.5 per 10,000) were hospitalized 5 times more often than white residents (2.7 per 10,000).

Mortality

In 2017, 78 Indiana residents’ deaths had asthma listed as the leading cause of death.
- The average age for mortality was 57 years of age.
- 29 were male and 49 were female
  - 45% of males were between 20 and 39 at the time of death while 57% were 60 years and older at the time of death
  - 57 were white and 21 were black (age-group)
    - 51% of whites were 60 years and older at the time of death while 43% of blacks were between 20 and 39 at the time of death.

*Current asthma was measured by asking if the adult still had asthma
**Age-adjusted rates using the US Standard 2000 Population.
*In 2016 hospitals transitioned from ICD9- ICD-10. ICD-10 codes used J45,J46

For additional information on the impact of asthma in Indiana, please visit: www.asthma.in.gov
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

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.
  - 50.7% missed work or could not participate in daily activities due to their asthma in the past 12 months\(^4\)
  - 10.0% said their activity was limited a lot during the past 30 days, 13.2% had moderate activity limitations and 28.6% reported “a little” activity limitation\(^4\)
- 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.
  - 33.1% had a health care professional give them an asthma action plan\(^4\)
  - 69.9% were taught how to recognize early signs or symptoms by a health care professional\(^4\)
- National asthma guidelines recommend persons with asthma seek at least two routine asthma visit per year.\(^5\)
  - 67.1% had at least 2 routine checkups in the past 12 months\(^4\)

TAKE ACTION: Steps you can take to prevent or control asthma
- To find out how well controlled your asthma is, take the Asthma Control Test:
  - Test for children ages 4 to 11 years
  - Test for those 12 years and over
- 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, child care 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
- 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.
- Healthy Homes App: https://www.hud.gov/program_offices/healthy_homes/disasterrecovery
- Breathe Well, Live Well programs in your area, visit the In My Community page and enter your zip code.

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