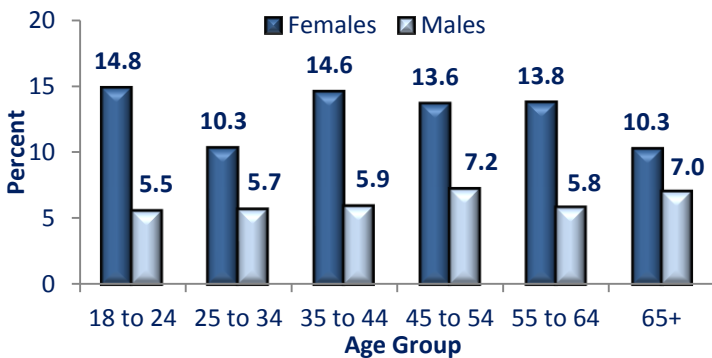




**ASTHMA** is a chronic inflammatory disease that affects the airways and lungs, and causes recurring periods of wheezing, chest tightness, shortness of breath and coughing. While it is not known why women have a higher burden of asthma morbidity and mortality than men, researchers suggest that asthma symptoms can be affected by pregnancy, the menstrual cycle and menopause.<sup>1</sup> In 2011, 12.8%, or nearly 424,000 women in Indiana, currently had asthma.<sup>2</sup> The prevalence of current asthma among adult women in Indiana is double that of men [Fig 1].

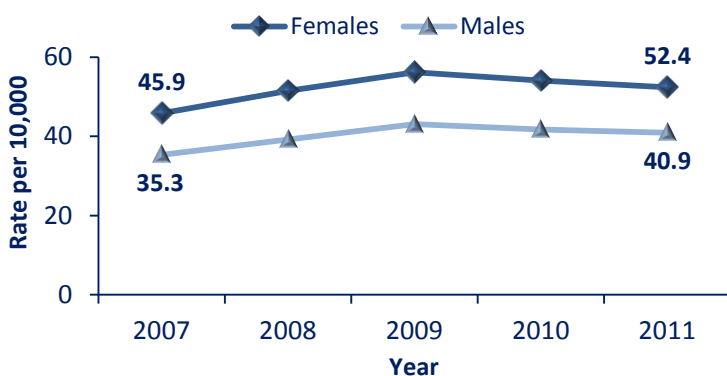
**Figure 1. Current asthma\* prevalence among adults, by age and sex, Indiana, 2011<sup>2</sup>**



Source: CDC and ISDH Data Analysis Team.

From 2007 to 2011, the age-adjusted rates of emergency department (ED) visits for females were significantly higher than the rates for males [Fig 2]. In 2011, the age-adjusted rate for primary diagnosis emergency department visits was 52.4 females per 10,000 population compared to 40.9 males per 10,000.<sup>3</sup>

**Figure 2. Asthma emergency department visit† age-adjusted rates, by year, Indiana, 2007–2011<sup>3</sup>**



Source: ISDH Data Analysis Team.

\*Measured by asking if the child/adult ever had asthma and still had asthma  
†Primary diagnosis

### Disparities

- A higher proportion of Indiana females (57.4%) were first diagnosed with asthma as adults compared to males (42.6%).<sup>4</sup>
- The mean age of asthma diagnosis is significantly higher in Indiana females (26.3 years) than males (20.1 years).<sup>4</sup>
- The prevalence of asthma also differs by race and sex.<sup>2</sup>
  - 16.4% of black females vs. 8.5% of black males
  - 11.8% of Hispanic females vs. 1.9% of Hispanic males
  - 12.1% of white females vs. 6.0% of white males

### Asthma and Pregnancy

Asthma is a common medical condition that potentially complicates pregnancy.<sup>5</sup>

- During pregnancy, asthma symptoms worsen in 35% of women.<sup>6</sup>
- In Indiana, an estimated 11.6% of pregnant women have a current asthma diagnosis.<sup>2</sup>

### Perinatal Outcomes<sup>7</sup>

Well-controlled asthma during pregnancy is important for the health and well-being of mother and baby.

- Pregnant women with moderate to severe asthma that is not well controlled are at increased risk of adverse perinatal outcomes:
  - Low birthweight
  - Small for gestational age
  - Preterm labor and delivery
  - Pre-eclampsia

### Medications

- According to current guidelines, it is safer for pregnant women with asthma to take their asthma medications than it is for them to have asthma symptoms or exacerbations.<sup>5</sup>
- Medications are not tested on pregnant women; therefore, data on asthma medication use during pregnancy are lacking.
- A population-based study with 9,642 babies found that asthma medication use during pregnancy did not increase the risk for most birth defects.<sup>8</sup>



## Asthma and Female Hormones<sup>9</sup>

- ❑ Hormones change during the course of the menstrual cycle, which can affect asthma symptoms.
- ❑ Some women with asthma see an increase in asthma symptoms around the time their period starts, or before the onset of menstruation.
- ❑ During menopause, hormones are fluctuating, which can increase asthma symptoms.

## Obesity

- ❑ In Indiana, 60.5% of adult females are considered overweight or obese.<sup>2</sup> Of these females, 15.0% have a current asthma diagnosis—which is higher than the overall female prevalence of asthma in Indiana (12.8%).<sup>1</sup>
- ❑ Research studies suggest that obesity is associated with increased risk of asthma in women, but not in men.<sup>10,11</sup>

## TAKE ACTION: Steps you can take to control asthma and prevent asthma symptoms

- ❑ To find out how well controlled your asthma is, take the Asthma Control Test:
  - [Test for those 12 and over](#)
  - [Test for children ages 4 to 11](#)
- ❑ Identify and avoid asthma [triggers](#) that can cause symptoms or attacks.
- ❑ During routine medical visits, talk with your healthcare provider about your asthma symptoms, triggers, medications and side effects.
- ❑ Work with your healthcare provider to create an [Asthma Action Plan](#)—these plans include a list of triggers, how to avoid them, information on medications and when they should be taken.
- ❑ Track asthma symptoms during your menstrual cycle to determine if/when symptoms increase.
- ❑ Avoid smoking and secondhand smoke.
- ❑ If you are pregnant:
  - Continue taking maintenance medications as directed by your health care provider.
  - Monitor lung function with spirometry at prenatal visits.

## Community resources

- ❑ [NeedyMeds](#) is an information resource that locates assistance programs to help people afford their medications.
- ❑ To be connected with Indiana programs and resources call the [Indiana Family Helpline](#) at 1-855-Help-1ST (855-435-7178). For information on tobacco cessation, call the [Indiana Tobacco Quitline](#) at 1-800-QUIT-NOW.
- ❑ For resources and programs concerning women's health, visit the [Indiana Office of Women's Health](#).
- ❑ The [IU National Center of Excellence in Women's Health](#) is working to improve the health of Indiana women.
- ❑ The [Indiana Coalition Against Domestic Violence](#) provides victims and their families with support, information and referrals. The statewide 24-hour toll free hotline number is 1-800-332-7385.
- ❑ The [Indiana Coalition Against Sexual Assault](#) provides education, advocacy, and support to professionals, communities and survivors regarding sexual violence in Indiana. To reach your local rape crisis center directly, call the National Sexual Assault Hotline at 1-800-656-HOPE.

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