



# Michigan Asthma Statistics

Michigan Department of Health and Human Services

February 2016

## Introduction

In the United States, 19 million adults and 7 million children have asthma.<sup>1</sup> The prevalence of asthma has increased from 7.3% to 8.4% from 2001 to 2010.<sup>2</sup> Asthma causes two million emergency department visits and almost 4,000 deaths a year.<sup>1</sup> Michigan has a higher percentage of adults and children with asthma and a higher asthma hospitalization rate compared with the United States.<sup>3,4</sup>

Hospitalization and mortality can be prevented by increasing awareness of asthma self management. Asthma education involves understanding how to prevent and recognize asthma attacks. When asthma symptoms are not controlled, normal activities are affected, quality of life is reduced, and death is possible. Cost barriers, access to health care, and other factors are barriers to asthma control.

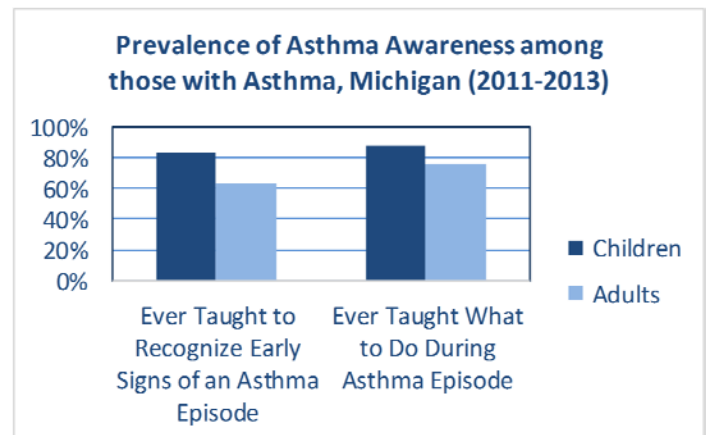
The following report describes the current state of asthma in Michigan by highlighting trends and statistics in asthma prevalence, education, management, quality of life, cost barriers, hospitalization, and mortality.

## Prevalence<sup>5</sup>

- ◇ In 2014, 15.3% of adults and 14.2% of children reported that they ever have had asthma.
- ◇ In 2014, 10.9% of adults and 10.2% of children reported that they currently have asthma.

## Asthma Education<sup>6</sup>

- ◇ In 2011-2013, more children than adults with asthma received instruction about recognizing and handling asthma attacks.
- ◇ Children were more likely to have ever been taught the early signs of an asthma episode than adults (83.8% and 63.6%, respectively), and were more likely to have ever been taught what to do during an asthma episode (88.3% and 76.5%, respectively).
- ◇ However, the percentage of children and adults that were ever taught how to use a peak flow meter was similar (45.5% and 44.4%).



## Quality of Life<sup>6</sup>

Between 2011 and 2013...

- ◇ 34.5% of adults with asthma and 23.0% of children with asthma reported difficulty sleeping due to asthma symptoms on two or more days in the past month.
- ◇ The majority of adults and almost half of children with asthma had their usual activities limited at least a little during the past 12 months due to asthma, 60.9% and 46.3%, respectively.
- ◇ 16.5% of adults and 20.2% of children reported that they visited the Emergency Room or Urgent Care at least once in the past year due to asthma.
- ◇ Only 25.1% of adults and 11.0% of children reported that they had zero asthma symptom-free days in the past two weeks.

## Routine Asthma Management<sup>6</sup>

- ◇ In surveys from 2011-2013, 47.0% of adults and 53.3% of children reported use of one or more asthma controller medication in the past three months.
- ◇ 38.3% of adults and 51.5% of children had two or more routine asthma care visits in the past year.

## Cost Barriers<sup>6</sup>

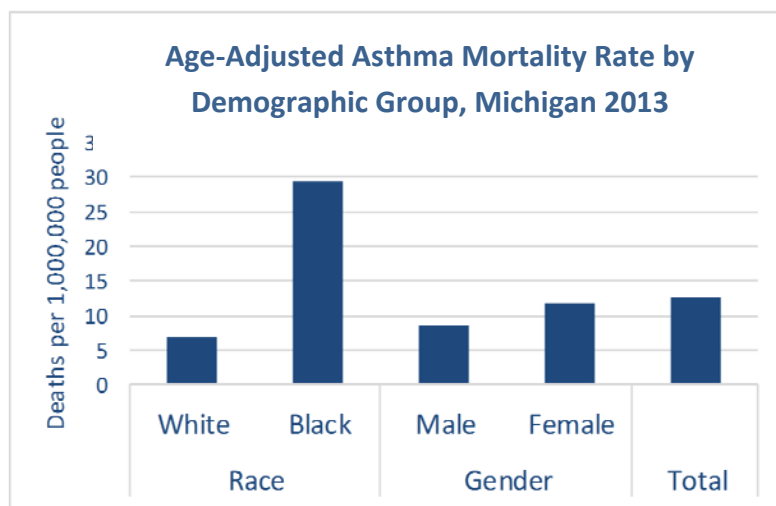
- ◇ Among adults, 15.0% reported a cost barrier to see a primary care doctor for their asthma, 7.5% reported a cost barrier to see an asthma specialist, and 21.0% reported a cost barrier to obtaining medication.

## Hospitalization<sup>7</sup>

- ◇ In 2011-2013, the rate of asthma hospitalizations was 13.3 events per 10,000 people, for an average of 13,617 hospitalizations per year.
- ◇ Among the hospitalizations in Michigan, 64.3% of hospitalizations were female, 80.1% were adults, and 56.6% were white.
- ◇ The asthma hospitalization rate has decreased 34.6% from 1990 to 2013, respectively (19.1 events per 10,000 vs 12.5 per 10,000).

## Mortality<sup>8</sup>

- ◇ In 2011-2013, the rate of asthma deaths was 10.1 per 1,000,000 people, for an average of 110 deaths per year.
- ◇ In 2013, the asthma mortality rate among Blacks was more than double the rate among Whites (29.3 per 1,000,000 vs 6.8 per 1,000,000, respectively). The asthma mortality rates were higher among females than males (11.7 per 1,000,000 vs 8.5 per 1,000,000, respectively).
- ◇ In 2013, the asthma mortality rate was five times higher in those 18 years and older compared with those 17 years and younger (11.8 per 1,000,000 vs 2.6 per 1,000,000, respectively).
- ◇ From 2000 to 2013, the mortality rate has decreased 38.3%, from 16.7 to 10.3 per 1,000,000 people.



## Conclusion

Although asthma hospitalization and mortality rates are declining, the increasing prevalence of asthma indicates that asthma will continue to be an important issue. Lack of asthma education can lead to worse control of symptoms, which can cause poor quality of life, hospitalization, and even death. Asthma trends and statistics continue to be an important resource and can be used to highlight areas for improvement.

## References

1. Centers for Disease Control and Prevention. National Center for Health Statistics: [www.cdc.gov/nchs/fastats/asthma](http://www.cdc.gov/nchs/fastats/asthma).
2. Akinbami et al. Trends in Asthma Prevalence, Health Care Use, and Mortality in the United States, 2001-2010. NCHS Data Brief, No.94. Hyattsville, MD: National Center for Health Statistics, 2012.
3. Centers for Disease Control and Prevention. Chronic Disease Indicators: [www.cdc.gov/cdi](http://www.cdc.gov/cdi)
4. Centers for Disease Control and Prevention. Data, Statistics, and Surveillance: [www.cdc.gov/asthma/asthmaadata](http://www.cdc.gov/asthma/asthmaadata)
5. Michigan Department of Health and Human Services. Behavioral Risk Factor Survey, 2014: [http://www.michigan.gov/mdhhs/0,5885,7-339-71550\\_5104\\_5279\\_39424---,00.html](http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424---,00.html)
6. Michigan Department of Health and Human Services. Asthma Call Back Survey, 2011-2013: [http://www.michigan.gov/mdhhs/0,5885,7-339-71550\\_5104\\_5279\\_39424---,00.html](http://www.michigan.gov/mdhhs/0,5885,7-339-71550_5104_5279_39424---,00.html)
7. Michigan Department of Health and Human Services. Division of Vital Records and Health Statistics, Michigan Inpatient Database, 1990-2013.
8. Michigan Department of Health and Human Services. Division of Vital Records and Health Statistics, Mortality Files, 2000-2013.