



Maine Center for Disease Control and Prevention  
An Office of the  
Department of Health and Human Services

Paul R. LePage, Governor

Mary C. Mayhew, Commissioner

# Asthma in Maine

## A Data Brief for Health Professionals

Asthma is a chronic disease that affects the lungs and airways. Asthma causes wheezing, breathlessness, chest tightness and coughing at night or early in the morning. There is no cure for asthma but it can be controlled with medication and by avoiding breathing in substances that irritate the lungs.

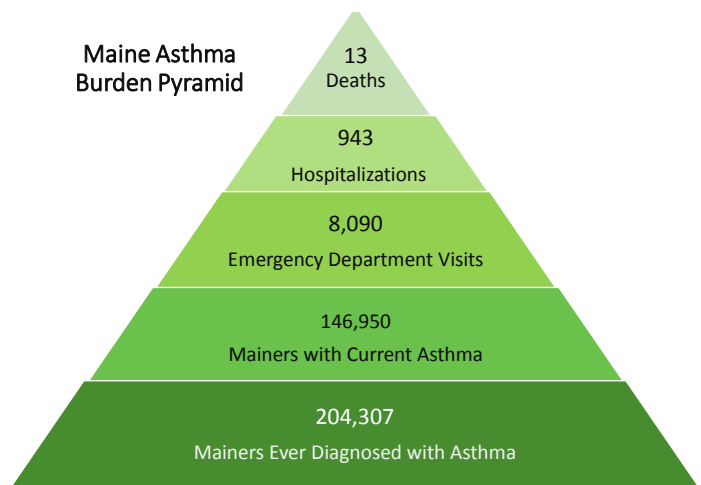
### Burden of Asthma Among Adults and Children in Maine

**One in nine Mainers, more than 146,000 people, currently has asthma.**

Left poorly-managed or uncontrolled, asthma can lead to emergency department visits, hospitalization or death. In Maine, asthma is responsible for an estimated \$14.3 million in lost productivity and nearly \$173 million in direct medical costs each year.

**Poorly controlled asthma contributes to roughly 8,100 emergency department visits, 950 hospitalizations and 13 deaths among Mainers each year.**

Maine Asthma Burden Pyramid



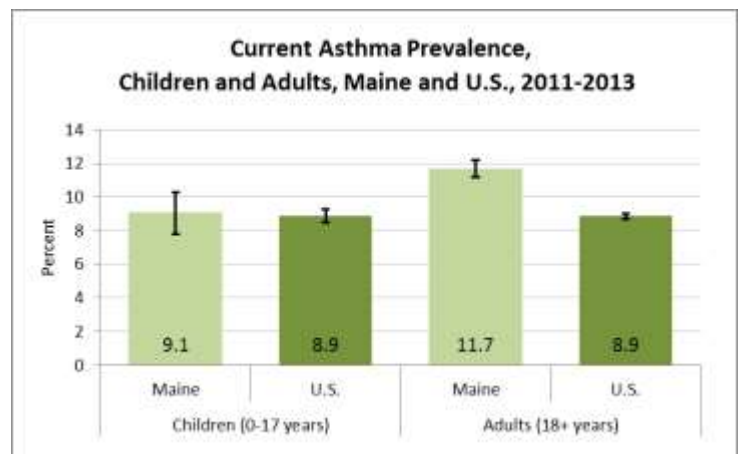
Data are either single year (2011) or average annual count.  
Data Sources: Maine Behavioral Risk Factor Surveillance System (Lifetime and current asthma, both adults and children); Maine Hospital Outpatient and Inpatient Data (ED Visits and Hospitalizations), Maine Health Data Organization; Maine Mortality Database, Data, Research, and Vital Records Program, Maine Center for Disease Control and Prevention (Deaths).

### Prevalence of Current Asthma, 2011-2013

**The prevalence of current asthma is significantly higher among Maine adults than U.S. adults, while the prevalence among Maine children is similar to U.S. children.**

The percentage of Maine adults with current asthma (11.7 percent) is significantly higher than the percentage among U.S. adults (8.9 percent).

The percentage of Maine children with current asthma (9.1 percent) is similar to the percentage among U.S. children (8.9 percent).



Data Source: Behavioral Risk Factor Surveillance System

Data for Maine are 2011-2013 and data for U.S. are 2012

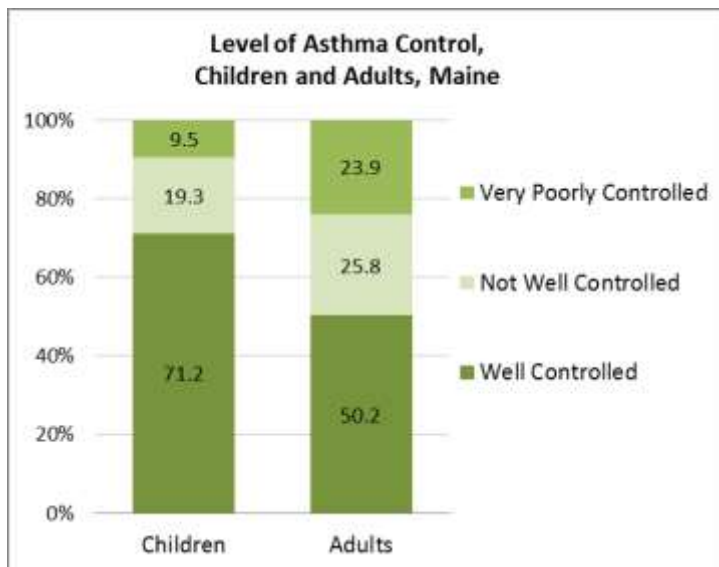
## Asthma Control, 2006-2010

### Too few Mainers have well-controlled asthma.

In Maine, seven in ten children (71.2 percent) and one in two adults (50.2 percent) with asthma have asthma that is well-controlled (based on their reports of symptoms, nighttime awakenings and use of rescue medications).

### Asthma can be controlled.

Asthma can be controlled with routine medical care, medications and patient education.



Data Source: Asthma Call-Back Survey, among people with current or active asthma. Data for children are 2006-2009; data for adults are 2006-2010.

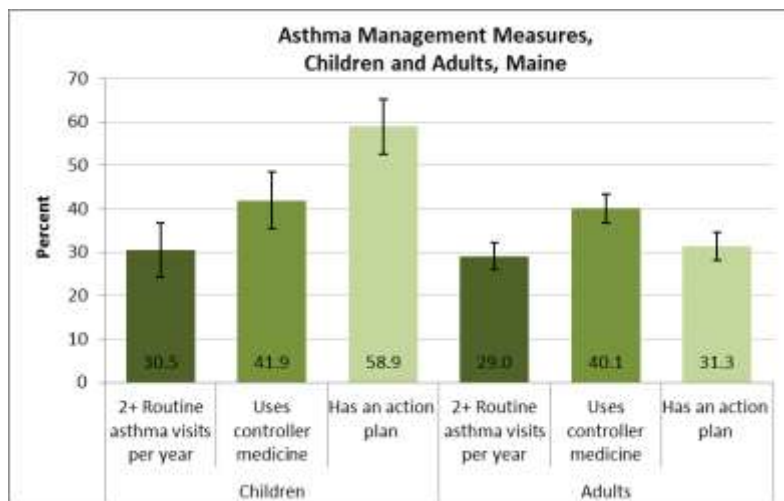
## Asthma Management, 2006-2010

### Too few Mainers with asthma are seeing their doctors regularly, are taking controller medicine or have an asthma action plan to know what to do in case of an asthma attack.

**Routine asthma visit** – Less than one-third of adults and children (29.0 percent and 31.5 percent, respectively) with asthma has seen their doctor for a routine asthma visit at least twice in the past year.

**Asthma controller medicine** - Less than half of Maine adults and children (40.1 percent and 41.9 percent, respectively) with asthma are currently taking a controller medicine.

**Asthma action plan** - Nearly six in ten children with asthma (58.9 percent) have an asthma action plan, but only three in ten adults (31.3 percent) with asthma have one.



Data Source: Asthma Call-Back Survey, among people with current asthma. Data for children are 2006-2009; data for adults are for 2006-2010.

## Missed Work, Activity, and School Days, 2006-2010

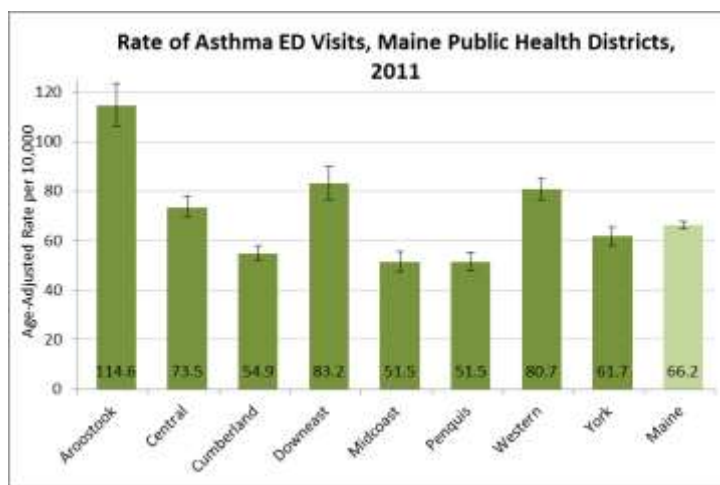
### Missed work, activity and school days are consequences of poorly controlled asthma.

One in five employed Maine adults with asthma (21.0 percent) report being unable to work or carry out usual activities for one or more days in the past year because of their asthma. Among all Maine adults with asthma, 12.4 percent report being unable to work or carry out usual activities for six or more days in the past year because of asthma. More than one in three Maine children with asthma (39.6 percent) missed one or more school or daycare days due to asthma in the past year.

## Emergency Department Visits Due to Asthma, 2011

### Each year, more than 8,000 emergency department (ED) visits of Maine residents are due to asthma.

Maine's age-adjusted asthma ED visit rate is 66.2 per 10,000 population. There are significant differences in ED visit rates across Maine's public health districts. Rates range from a high of 114.6 per 10,000 in Aroostook District to a low of 51.5 per 10,000 in Midcoast and Penquis districts. Maine females have significantly higher asthma ED rates than males (73.5 vs. 58.2 per 10,000, respectively).

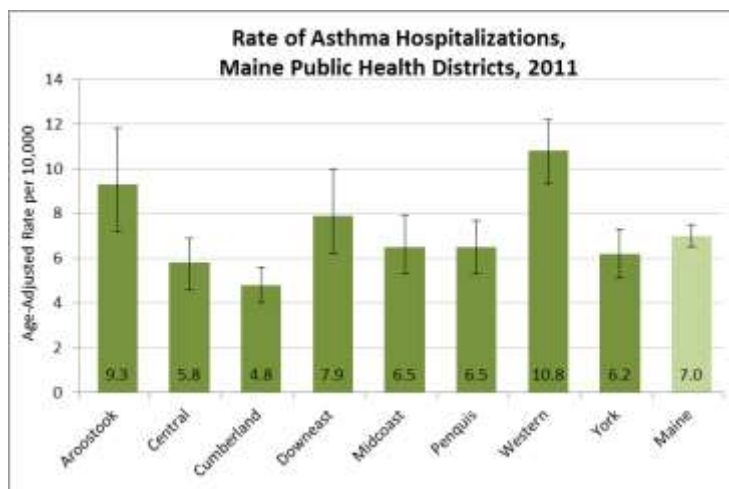


Data Source: Maine Hospital Outpatient and Inpatient Data, Maine Health Data Organization

## Asthma Hospitalizations, 2011

### Asthma is the primary reason for nearly 950 hospitalizations of Maine residents annually.

Maine's age-adjusted asthma hospitalization rate is 7.0 per 10,000 population. There are significant differences across public health districts. Rates range from a high of 10.8 per 10,000 in Western District to a low of 4.8 per 10,000 in Cumberland District. Maine females have significantly higher asthma hospitalization rates than males (8.2 vs. 5.6 per 10,000, respectively).



Data Source: Maine Hospital Outpatient and Inpatient Data, Maine Health Data Organization

## Asthma Mortality, 2004-2013

### Asthma causes an average of 13 deaths in Maine each year.

Over the past decade, up to 16 people died due to asthma each year in Maine (with asthma being the primary cause of death) and the age-adjusted asthma death rate for this period was 0.9 per 100,000. During this same period, asthma was a contributing cause in the deaths of an additional 16 to 29 Maine residents each year. Maine has consistently lower asthma death rates compared to the U.S. overall and similar rates compared to U.S. non-Hispanic whites.

**For more information about asthma in Maine, call the Maine CDC Asthma Program at 207-287-3041 or visit their website at: <http://www.maine.gov/dhhs/mecdc/population-health/mat/>.**

#### Technical Notes

**Age-adjusted rates** are adjusted to the year 2000 United States standard population.

**Asthma Prevalence:** Prevalence refers to the percent of the population that has a disease or condition at a specific point or period in time. An individual will be included in the lifetime asthma category if they report ever having been diagnosed with asthma and will be included in the current asthma group if they also report still having asthma at the time of the BRFSS survey.

**Confidence Interval (CI)** is a range of values within which we believe the underlying true value will be included. Most often, a 95 percent CI is given, which means that there is 95 percent confidence that the range given includes the true value. These intervals are represented as bands in the figures above. In general, if the CIs overlap, the numbers are not statistically different.

**Asthma Control:** Overall Level of Control is based on three factors: symptoms, nighttime awakenings and rescue medication use, each of which is a summary measure based upon respondents' reports. All three components must be "well-controlled" to score an overall level of "well-controlled."

**Maine Health Data Organization Data:** Gender-specific rates analyzed by the Maine Tracking Network, all others analyzed by the Maine Center for Disease Control and Prevention's Division of Population Health Epidemiology.

**Maine Asthma Cost Data:** Lost productivity and medical costs due to asthma provided by Tursynbek A. Nurmagambetov, National Center for Environmental Health, U.S. CDC, Atlanta, Georgia



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