

## Montana Public Health Actions to Meet Healthy People 2020 Asthma Goals

### Home Visiting Program: MAP

Asthma education and assessment of the home environment for children with uncontrolled asthma and their families

### Asthma Care at the Hospital: AHEAD Protocol

Quality improvement initiative that aims to support delivery of guidelines-based healthcare in emergency departments and hospitals

### Workforce Development: Asthma Educator Initiative

Educational opportunities for healthcare providers with the goal of increasing the number of certified asthma educators in Montana

### School and Childcare Trainings

Free training for school staff and childcare providers on creating asthma friendly environments through in-person and web-based trainings as well as resource guides

## Montana Asthma Control Program

1400 E Broadway  
Helena, Montana 59620-2951

<http://www.dphhs.mt.gov/asthma>

# Asthma Control in Montana

## Progress Towards the Healthy People 2020 Goals

Currently, in the United States, more than 23 million people have asthma. Over 85,000 people with asthma live in Montana. Through the expansion of guideline-based diagnoses and treatment, progress is being made both in Montana and the nation towards reducing the impact of asthma on individual lives.

The Healthy People 2020 (HP2020) objectives outline ambitious, but achievable nationwide health improvement goals. Adopting these goals in Montana and monitoring the progress towards achieving them provides a standard for comparison to other states and the nation, encouraging greater collaboration across communities and sectors.

Healthy People 2020 Asthma Objectives	
RD-1	Reduce asthma deaths.
RD-2	Reduce hospitalizations for asthma.
RD-3	Reduce emergency department (ED) visits for asthma.
RD-4	Reduce activity limitations among persons with current asthma.
RD-5	Reduce the proportion of persons with asthma who miss school or work days.
RD-6	Increase the proportion of persons with current asthma who receive formal patient education.
RD-7	Increase the proportion of persons with current asthma who receive appropriate asthma care according to National Asthma Education and Prevention Program guidelines.
RD-7.1	Proportion who receive written asthma management plans from their health care provider (HCP)
RD-7.2	Of those with prescribed inhalers, proportion who receive instruction on their use
RD-7.3	Proportion who receive education about appropriate response to an asthma episode, including recognizing early signs and symptoms or monitoring peak flow results
RD-7.4	Proportion who do not use more than one canister of short-acting inhaled beta agonist (SABA) per month
RD-7.5	Proportion who have been advised by a health professional to change things in their home, school, and work environments to reduce exposure to irritants or allergens to which they are sensitive
RD-7.6	Proportion who have had at least one routine follow-up visit with an HCP in the past 12 months (In Development, No Data)
RD-7.7	Proportion whose HCP assessed their asthma control in the past 12 months (In Development, No Data)
RD-7.8	Proportion who have discussed with a doctor or other health professional whether their asthma was work related

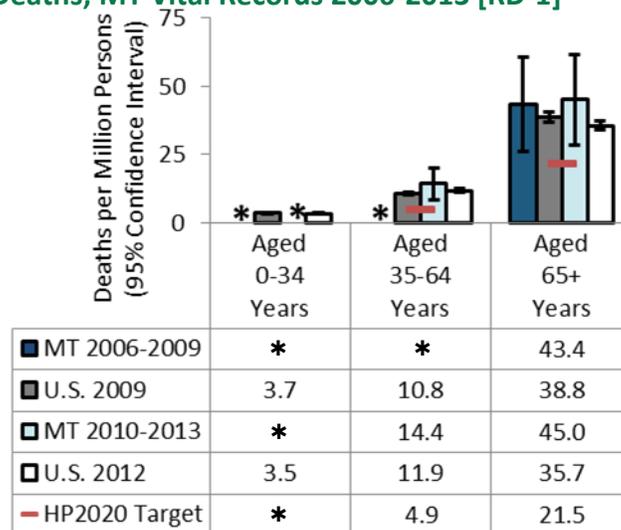
# Reducing the Burden of Asthma

- The rates of deaths due to asthma appear similar between Montana and the nation. Both the 35-64 and 65+ year age groups had higher rates than the HP2020 target. At an average of about one death per year in MT, there were too few deaths due to asthma among the 0 to 34 year age group to estimate a stable rate. (Figure 1; RD-1)
- The rates of ED visits and hospitalizations due to asthma appear to have been lower in Montana than nationwide across all age groups. The rates in Montana in 2013 were below the HP2020 targets in all age groups. (Figures 2, 3; RD-2,3)
- The rates of ED visits and hospitalizations in Montana in 2013 were significantly lower than in 2010 for those aged 0 to 4 years and aged 5 to 64 years, but not for those aged 65 years or older. (Figures 2, 3; RD-2,3)
- The burden of asthma in terms of the proportion of adults with asthma who miss work days due to asthma was similar between Montana and the nation, 45% and 41% respectively, with overlapping confidence intervals, according to the 2012-2013 MT BRFSS-ACBS. The HP2020 target is 27%. (RD-5)
- The proportion of children missing school due to asthma and the proportion of people with asthma reporting activity limitations due to asthma could not be estimated in Montana due to the sample size of the MT BRFSS-ACBS. (RD-4,5)

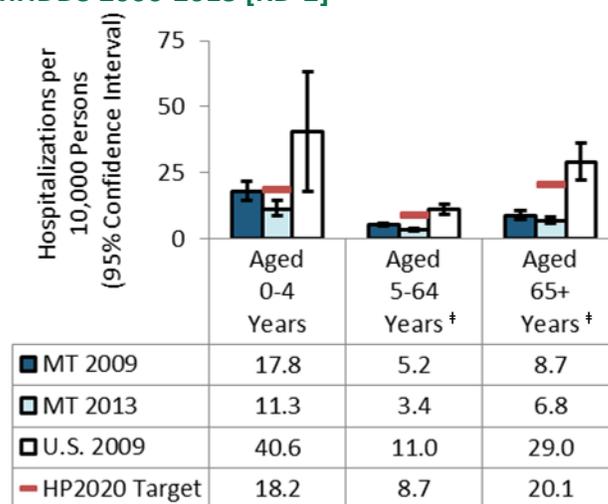
## Methods and Data Sources

- **MT BRFSS-ACBS:** The Behavioral Risk Factor Surveillance System and its Asthma Call Back Survey component are state-based surveys of non-institutionalized adults who are asked about the health risks and behaviors of themselves and their children.
- **MHDDS:** The Montana Hospital Discharge Data System provides emergency department and hospitalization data. For this report, cases included records of Montana residents with a primary diagnosis of asthma (ICD-9-CM code 493). The data is made available courtesy of the Montana Hospital Association.
- **MT Vital Records:** The Montana Office of Vital Statistics collects death record information for the state's residents. All records are coded with an underlying cause of death. For this report, cases included records that were coded as J45 or J46.
- **U.S. HP2020:** The Healthy People 2020 objectives and national estimates were abstracted from the website [www.healthypeople.gov](http://www.healthypeople.gov), which is constructed and maintained by the U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion.

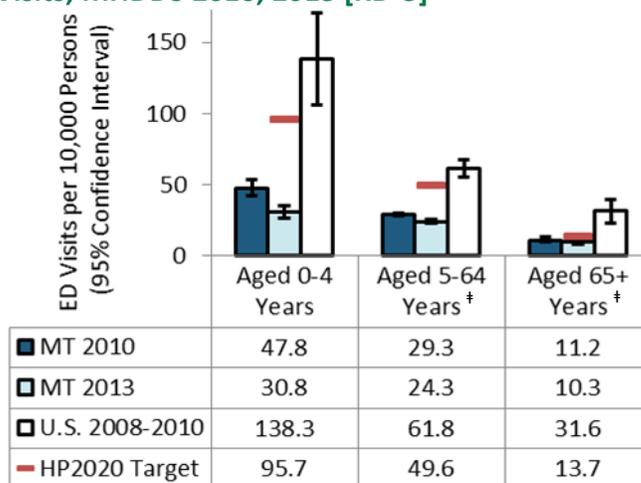
**Figure 1. Rates of Asthma Deaths; MT Vital Records 2006-2013 [RD-1]**



**Figure 2. Rates of Asthma Hospitalizations; MHDDS 2006-2013 [RD-2]**



**Figure 3. Rates of Asthma Emergency Department Visits; MHDDS 2010, 2013 [RD-3]**



\* Not measured or target not set  
<sup>†</sup> Age adjusted to the year 2000 standard

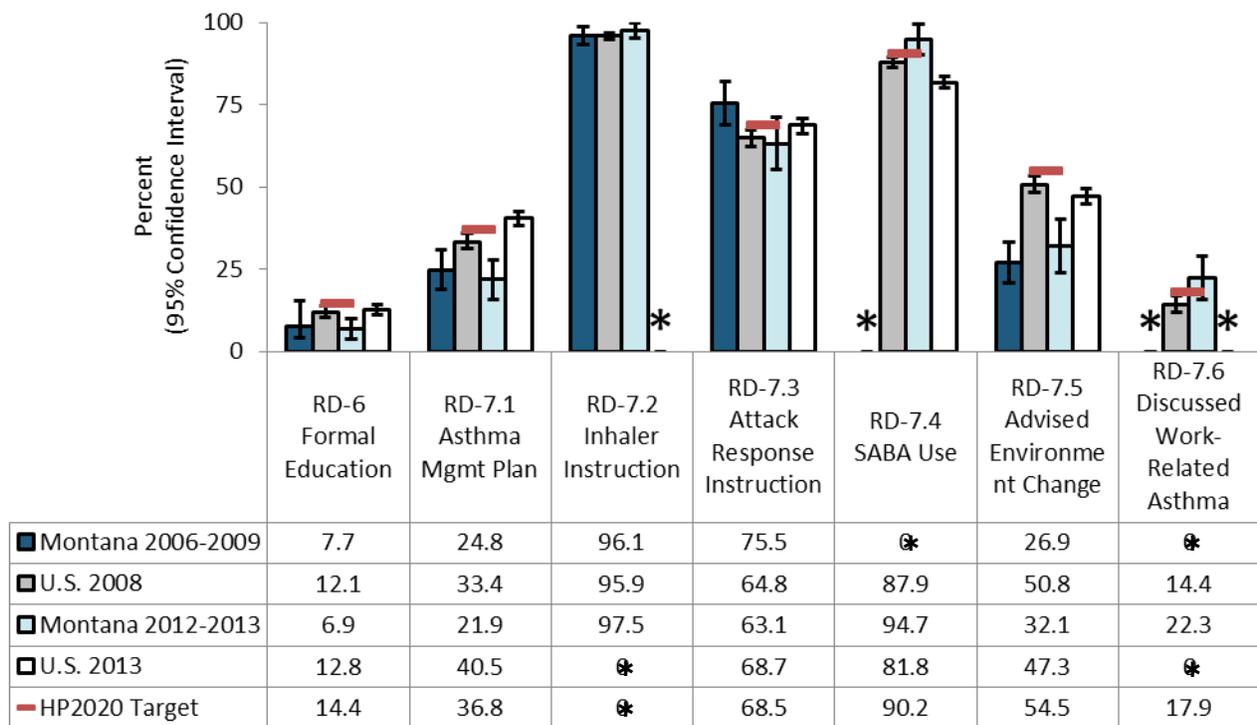
# Improving Asthma Control Through Guidelines-Based Treatment and Patient Education

Montana has achieved some of the asthma related HP2020 goals for patient treatment and education, but more can be done to reach others. (Figure 4)

- The use of asthma management plans was less prevalent among Montanans (about 22%) than the general U.S. population (about 41%). Montana has not yet met the HP2020 target of 37%. (RD-7.1)
- The proportion of Montanans with asthma who reported being advised to make changes in their home, school, and work environments to reduce exposure to asthma triggers was lower than the national proportion (about 32% and 47%, respectively). The target of 55% has not yet been reached. (RD-7.5)
- The proportion of persons with asthma who received formal education in asthma management, such as through a course provided by a certified asthma educator, was lower than the target of 14% for both Montana and the nation (about 7% and 13%, respectively). (RD-6)

For measures RD-7.3, RD-7.4, and RD-7.6, confidence intervals overlap the HP2020 target and therefore the Montana estimates cannot be considered higher or lower than the targets.

**Figure 4. Asthma Management and Patient Education; MT BRFSS-ACBS 2006-2013<sup>†‡</sup> [RD-6,7]**



\* Not measured or target not set.

<sup>†</sup> Due to a change in BRFSS survey methodology and the inclusion of cell phone sampling in 2011, estimates from pre- and post-2011 surveys cannot be directly compared.

<sup>‡</sup> All measures are age-adjusted to the year 2000 standard.



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## Clinical Recommendations

- Provide asthma care according to the Third Expert Panel Report (EPR-3) Guidelines for the Diagnosis and Management of Asthma created by the National Heart, Lung, and Blood Institute.
- Provide asthma self-management education at every opportunity, including emergency department visits and outpatient visits.
- Know what in-depth asthma education services are available in your area, including the Montana Asthma Home Visiting program (MAP) and certified asthma educators, and refer patients to these services when possible.

## Report Highlights:

### Healthy People 2020 Goals

#### Montana's progress on meeting goals towards:

- **Asthma patient education**
- **Asthma treatment and management**
- **Burden of asthma**