



Jurisdiction Profile:

Asthma in Montgomery County

Background

What is Asthma? Asthma is a controllable, chronic lung disease characterized by inflammation of the airways that leads to reversible airway constriction and excess mucus secretion. Narrowing of the airways results in reduced airflow that may cause symptoms of wheezing, coughing, tightness of the chest, and difficulty breathing.

Asthma is a serious and complex chronic respiratory disease with no known cure that currently affects an estimated 823,000 Maryland adults and children. In 2009, asthma in Maryland resulted in 11,474 hospitalizations, 39,834 visits to hospital emergency departments, thousands of hours of lost school and work days, and 67 deaths. Maryland costs for asthma in hospital and emergency departments totaled over \$99 million in 2009. Due to the burden on patients, families, and society, asthma is considered a major public health concern in Maryland and nationally.

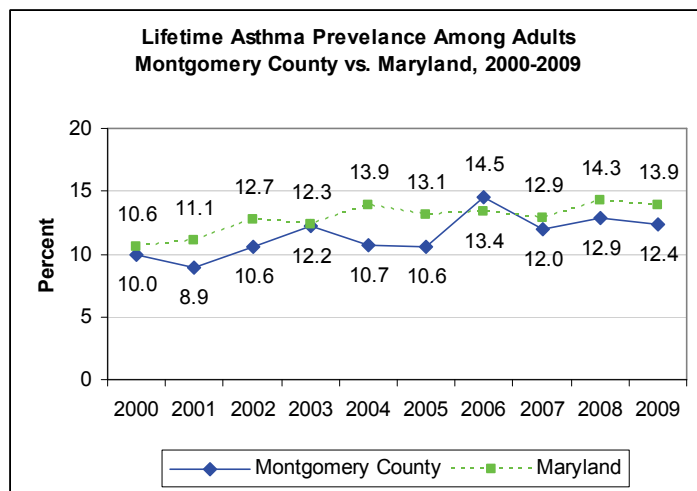
Montgomery County Population Demographics, 2009		
Race	White	649,791
	Black	175,165
Age	0 - 4 yrs	69,752
	5 - 17 yrs	167,869
	18 - 64 yrs	614,468
	65+ yrs	119,511
	Total	971,600

Data in this report are from Maryland's Behavioral Risk Factor Surveillance System (BRFSS), Maryland Health Services Cost Review Commission (HSCRC), and Maryland's Vital Statistics Administration (VSA). Rates are calculated based on population statistics from the CDC's National Center for Health Statistics (NCHS) vintage population files. Data have been age-adjusted to the 2000 U.S. estimated population where noted. Since some Maryland residents are hospitalized in neighboring states, data on hospitalization of Maryland residents from Delaware, Pennsylvania*, Washington D.C., and West Virginia are included when possible.

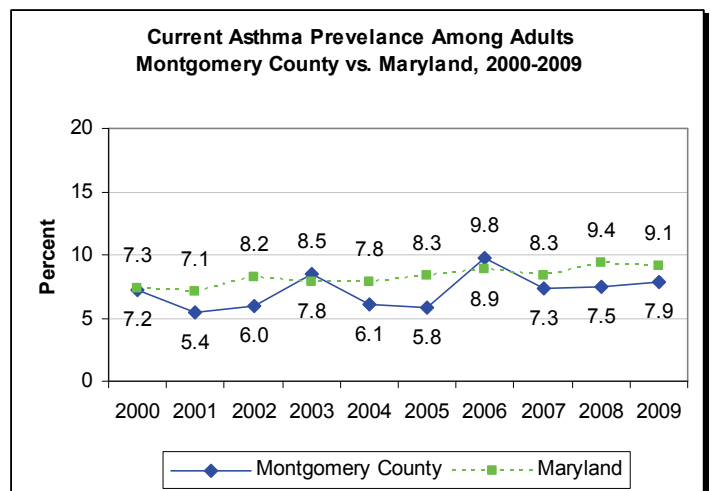
Prevalence

Statewide in 2009, approximately 594,609 (13.9%) Maryland adults had a history of asthma. In Montgomery County, approximately 12.4% of adult residents had been diagnosed with asthma. Of these, 7.9% reported that they currently have asthma, representing approximately 60,064 adults in Montgomery County.

While asthma is one of the most common illnesses among children, there is little reliable county level data on the prevalence of asthma in children.



Maryland BRFSS, 2000-2009.



Maryland BRFSS, 2000-2009.

* "The Pennsylvania Health Care Cost Containment Council (PHC4) is an independent state agency responsible for addressing the problem of escalating health costs, ensuring the quality of health care, and increasing access to healthcare for all citizens regardless of ability to pay. PHC4 has provided data to this entity in an effort to further PHC4's mission of educating the public and containing health care costs in Pennsylvania. PHC4, its agents, and staff, have made no representation, guarantee, or warranty, expressed or implied, that the data -- financial, patient, payor, and physician specific information -- provided to this entity, are error-free, or that the use of the data will avoid differences of opinion or interpretation. This analysis was not prepared by PHC4. This analysis was done by MACP. PHC4, its agents and staff, bear no responsibility or liability for the results of the analysis, which are solely the opinion of MACP."

Emergency Department Visits

Asthma Emergency Department Visit Rates (per 10,000) Montgomery County vs. Maryland, 2009

Age	Montgomery County		Maryland	
	n	Rate	n	Rate
Children 0 - 4 yrs	840	120.4	7,443	195.6
	1,041	57.7	11,077	114.7
	1,881	72.6	18,520	136.1
Adults 18 - 64 yrs	1,161	19.6	20,296	56.3
	100	8.4	1,018	14.7
	1,261	17.7	21,314	50.3
Total	3,142	33.0	39,834	72.3

Maryland HSCRC, 2009.

^a Rates are age-adjusted to the 2000 U.S. standard population.

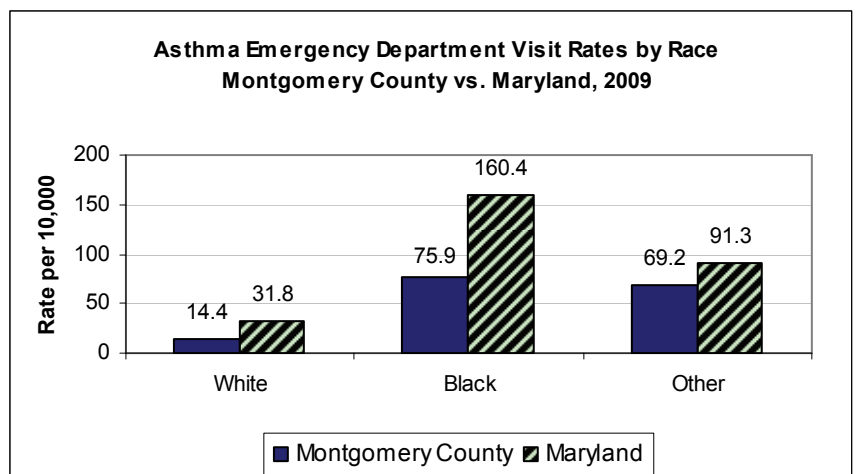
There were 3,142 emergency department (ED) visits with asthma as a principal diagnosis in Montgomery County for 2009, resulting in an age-adjusted rate of 33.0 per 10,000.

The ED visit rate for asthma among adult residents (≥ 18 years) in Montgomery County was 2.8 times lower than the ED visit rate for Maryland adults (17.7 vs. 50.3 per 10,000).

The ED visit rate for asthma among children (< 18 years) in Montgomery County was 1.9 times lower than the ED visit rate for Maryland children (72.6 vs. 136.1 per 10,000).

In Montgomery County, the asthma ED visit rate was approximately 5.3 times higher among Black residents and 4.8 times higher among Other residents compared to White residents (75.9 and 69.2 vs. 14.4 per 10,000).

The asthma ED visit rate in Montgomery County was lower in all race categories compared to Maryland.

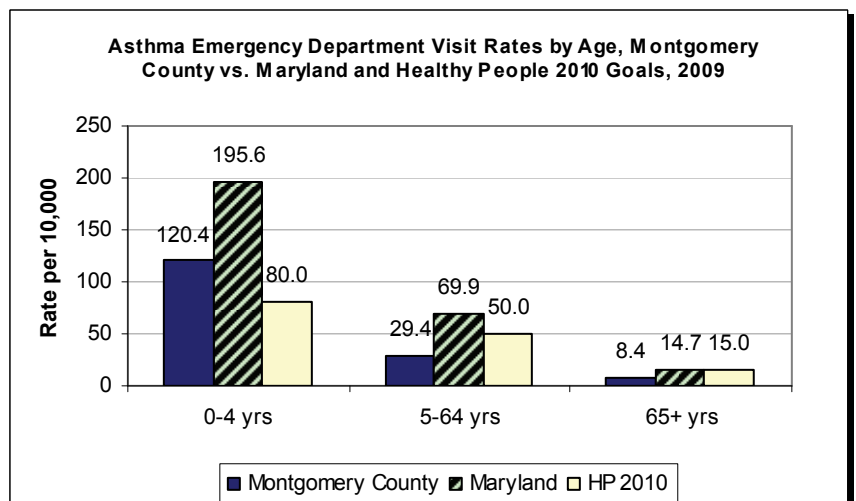


Maryland HSCRC, 2009.

^a Rates are age-adjusted to the 2000 U.S. standard population.

In 2009, Montgomery County met the Healthy People 2010 asthma ED visit rate goals for the 5 to 64 and 65+ age groups.

Maryland ED visit rates exceeded Healthy People 2010 goals for all age groups with the exception of the adult age group of 65 years of age and older.



Maryland HSCRC, 2009; DATA2010 Healthy People 2010 Database, U.S. DHHS, 2010.

^a Rates are age-adjusted to the 2000 U.S. standard population.

Hospitalizations

Asthma Hospitalization Rates (per 10,000) Montgomery County vs. Maryland, 2009

Age	Montgomery County		Maryland	
	n	Rate	n	Rate
Children 0 - 4 yrs	228	32.7	1,834	48.2
	192	10.5	1,400	17.4
	420	15.8	2,976	25.4
Adults 18 - 64 yrs	401	6.1	5,867	9.5
	210	17.6	2,087	30.0
	611	7.6	7,954	13.2
Total	1,031	10.3	11,474	19.8

MD HSCRC, DE Dept of Health, PA Health Care Cost Containment Council, WV Health Care Authority, 2009.

^a Rates are age-adjusted to the 2000 U.S. standard population.

^b Includes Maryland residents hospitalized in Delaware, Pennsylvania, Washington D.C., and West Virginia (MD county data not available for Delaware hospitalizations; MD state data only includes Delaware for total, 0-4, and 65+ due to age groupings).

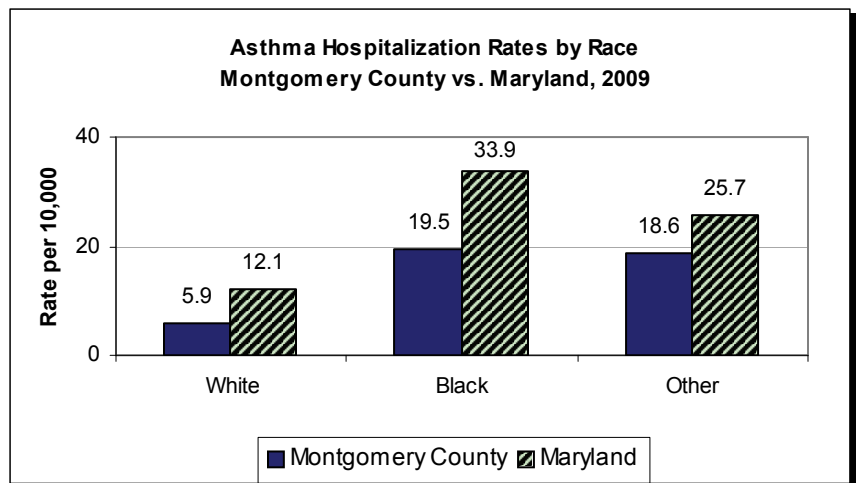
There were 1,031 hospitalizations for asthma as a principal diagnosis in Montgomery County in 2009, resulting in an age-adjusted rate of 10.3 per 10,000.

The hospitalization rate for asthma among adult residents (≥ 18 years) in Montgomery County was 1.7 times lower than the hospitalization rate for Maryland adults as a whole (7.6 vs. 13.2 per 10,000).

The hospitalization rate for asthma among children (< 18 years) in Montgomery County was 1.6 times lower than the hospitalization rate for Maryland children (15.8 vs. 25.4 per 10,000).

In Montgomery County, the asthma hospitalization rate was approximately 3.3 times higher among Black residents and 3.2 times higher among Other residents compared to White residents (19.5 and 18.6 vs. 5.9 per 10,000).

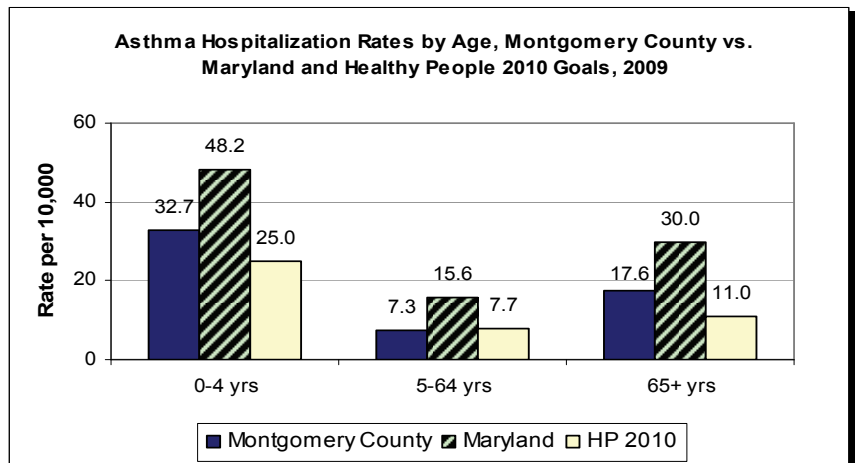
The asthma hospitalization rates in Montgomery County was lower in all race categories compared to Maryland.



Maryland HSCRC, 2009; Pennsylvania Health Care Cost Containment Council, 2009.

^a Rates are age-adjusted to the 2000 U.S. standard population.

In 2009, Montgomery County and Maryland exceeded the Healthy People 2010 asthma hospitalization rate goals for all age groups.



MD HSCRC, DE Dept of Health, PA Health Care Cost Containment Council, WV Health Care Authority, 2009.

^a Rates are age-adjusted to the 2000 U.S. standard population.

^b Includes Maryland residents hospitalized in Delaware, Pennsylvania, Washington D.C., and West Virginia (MD county data not available for Delaware hospitalizations; MD state data only includes Delaware for total, 0-4, and 65+ due to age groupings).

Cost of Asthma

The average cost per asthma ED visit for children was \$767 in Montgomery County and \$658 in Maryland. The average cost per asthma ED visit for adults was \$729 in Montgomery County and \$647 for Maryland. The total average cost for an asthma ED visit in Montgomery County was found to be statistically different than the state of Maryland.

In Montgomery County, private insurance was the source of payment for approximately 43.7% of asthma ED visits, while public insurance was the source of 43.1% of the visits.

Private insurance was the source of payment for approximately 34.2% of asthma ED visits in Maryland, while public insurance was the source for 45.6% of the visits.

The average cost per asthma hospitalization for children was \$4,240 in Montgomery County and \$5,403 in Maryland. The average cost per asthma hospitalization for adults was \$7,483 in Montgomery County and \$7,397 in Maryland. The total average cost for an asthma hospitalization in Montgomery County was found to be statistically different than the state of Maryland.

In Montgomery County, private insurance was the source of payment for approximately 41.3% of all 2009 asthma hospitalizations, while public insurance was the source of 51.1% of the stays.

Private insurance was the source of payment for 30.6% of asthma hospitalizations in Maryland, while public insurance was the source for 60% of the asthma hospitalizations.

Costs per Emergency Room Visit for Asthma, 2009

Age	Montgomery County		Maryland	
	Average	Total	Average	Total
Children (0-17 yrs)	\$767	\$1,441,882	\$658	\$12,188,425
Adults (18+ yrs)	\$729	\$919,501	\$647	\$13,795,690
Total	\$752	\$2,361,383	\$652	\$25,984,115

Maryland HSCRC, 2009.

Source of Payment for Asthma Emergency Room Visits, 2009

Source of Payment	Montgomery County	Maryland
Medicare	4.7%	5.2%
Medicaid	38.4%	40.4%
Private Insurance	43.7%	34.2%
Self Pay/Charity	12.7%	18.6%
Other/Unknown	0.5%	1.6%

Maryland HSCRC, 2009.

Costs per Hospitalization for Asthma, 2009

Age	Montgomery County		Maryland	
	Average	Total	Average	Total
Children (0-17 yrs)	\$4,240	\$1,462,613	\$5,403	\$16,078,883
Adults (18+ yrs)	\$7,483	\$4,332,897	\$7,397	\$57,274,922
Total	\$6,272	\$5,795,510	\$6,843	\$73,353,805

Maryland HSCRC, 2009.

Source of Payment for Asthma Hospitalizations, 2009

Source of Payment	Montgomery County	Maryland
Medicare	24.8%	26.0%
Medicaid	26.3%	34.0%
Private Insurance	41.3%	30.6%
Self Pay/Charity	7.4%	7.7%
Other/Unknown	0.2%	1.7%

Maryland HSCRC, 2009.

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