



Jurisdiction Profile:

Asthma in Wicomico 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.

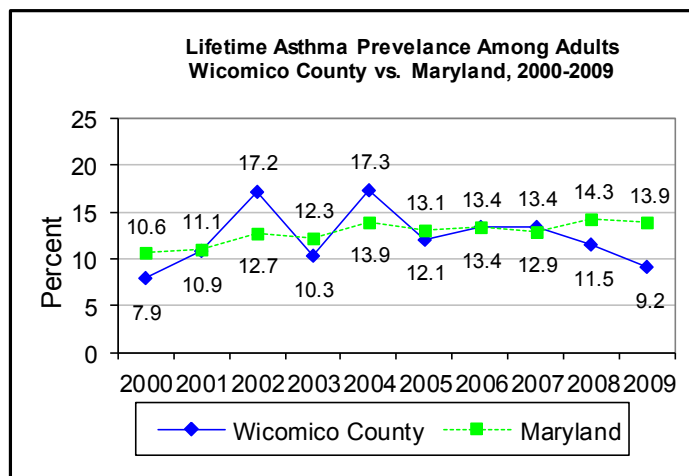
Wicomico County Population Demographics, 2009		
Race	White	68,924
	Black	23,188
Age	0 - 4 yrs	6,495
	5 - 17 yrs	15,438
	18 - 64 yrs	59,679
	65+ yrs	12,610
	Total	94,222

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.

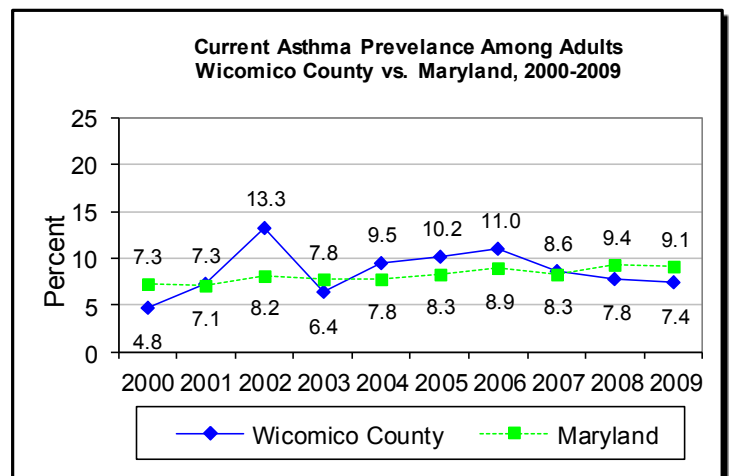
Prevalence

Statewide in 2009, approximately 594,609 (13.9%) Maryland adults had a history of asthma. In Wicomico County, approximately 9.2% of adult residents had been diagnosed with asthma. Of these, 7.4% reported that they currently have asthma, representing approximately 5,162 adults in Wicomico 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) Wicomico County vs. Maryland, 2009

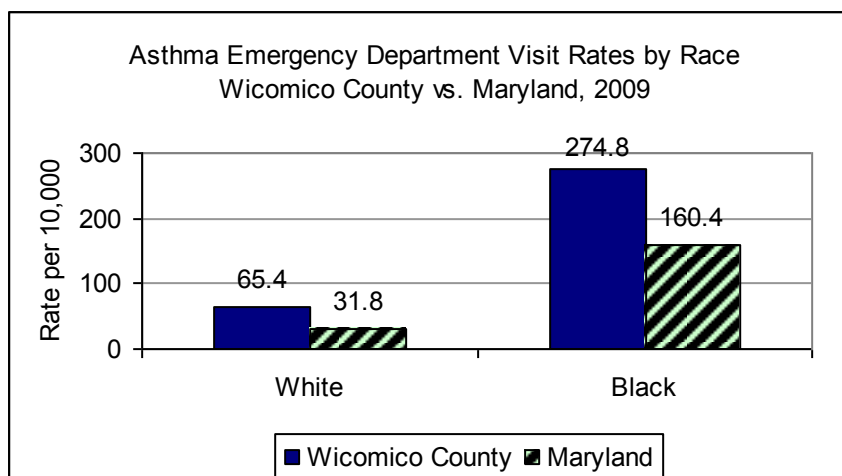
Age	Wicomico County		Maryland	
	n	Rate	n	Rate
Children 0 - 4 yrs	157	241.7	7,443	195.6
	266	162.9	11,077	114.7
	423	181.7	18,520	136.1
Adults 18 - 64 yrs	611	106.7	20,296	56.3
	39	30.9	1,018	14.7
	650	94.0	21,314	50.3
Total	1,073	119.1	39,834	72.3

Maryland HSCRC, 2009.

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

In Wicomico County, the asthma ED visit rate was approximately 4.2 times higher in Black residents compared to White residents (274.8 vs. 65.4 per 10,000).

The asthma ED visit rate in Wicomico County was higher in Black and White residents compared to Maryland.

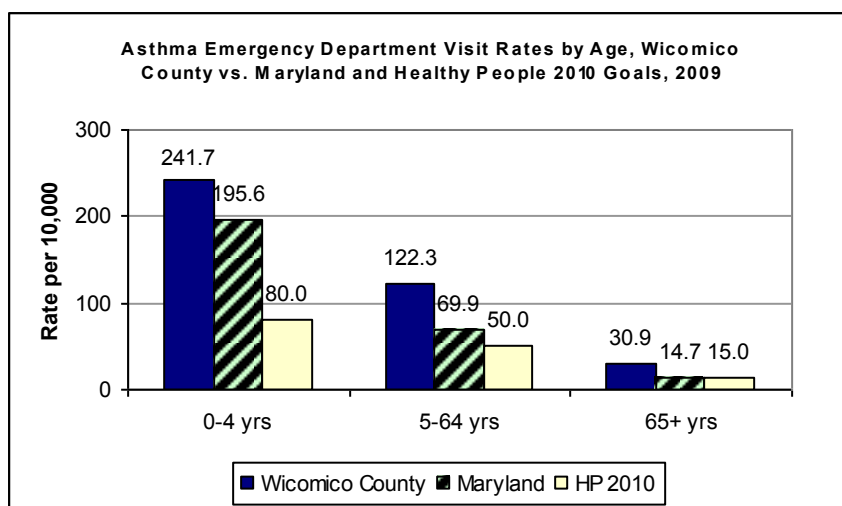


Maryland HSCRC, 2009.

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

Wicomico County ED visit rates exceeded the Healthy People 2010 goals for all 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) Wicomico County vs. Maryland, 2009

Age	Wicomico County		Maryland	
	n	Rate	n	Rate
Children 0 - 4 yrs	40	61.6	1,834	48.2
	21	12.2	1,400	17.4
	62	24.3	2,976	25.4
Adults 18 - 64 yrs	70	12.2	5867	9.5
	28	22.2	2,087	30.0
	98	13.2	7954	13.2
Total	160	17.2	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).

In Wicomico County, the asthma hospitalization rate was 2.5 times higher in Black residents and 4.2 times higher in Other residents compared to White residents (40.7 and 67.9 vs. 16.0 per 10,000).

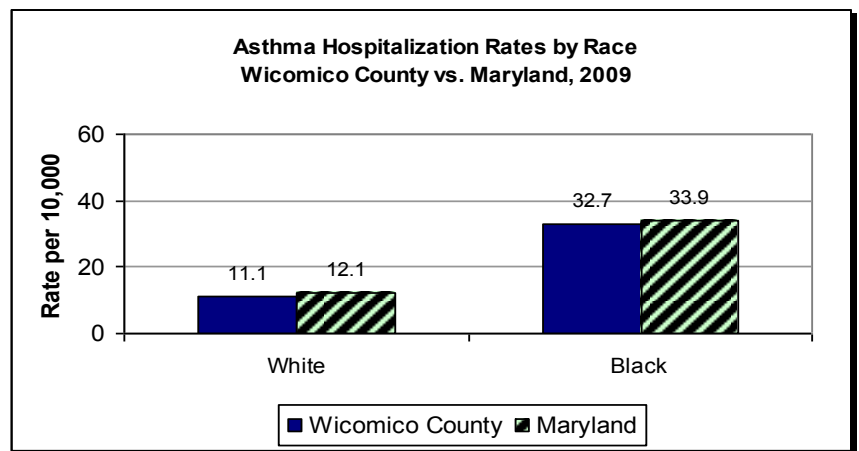
The asthma hospitalization rates in Wicomico County residents was higher in all race categories compared to Maryland.

In 2009, Wicomico County and Maryland exceeded the Healthy People 2010 goals for hospitalizations rates in all age categories.

There were 160 hospitalizations for asthma as a principal diagnosis in Wicomico County in 2009, resulting in an age-adjusted rate of 17.2 per 10,000.

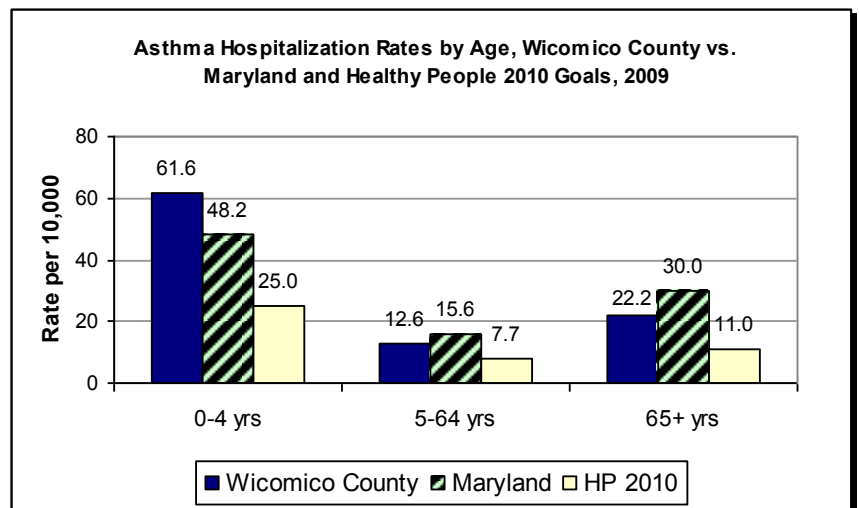
The hospitalization rate for asthma among adult residents (≥ 18 years) in Wicomico County was comparable to the hospitalization rate for Maryland adults as a whole (13.2 vs. 13.2 per 10,000).

The hospitalization rate for asthma among children (< 18 years) in Wicomico County was comparable to the hospitalization rate for Maryland children (24.3 vs. 25.4 per 10,000).



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

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



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

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Cost of Asthma

The average cost per asthma ED visit for children was \$282 in Wicomico County and \$658 in Maryland. The average cost per asthma ED visit for adults was \$300 in Wicomico County and \$647 for Maryland. The total average cost for an asthma ED visit in Wicomico County was found to be statistically different than the state of Maryland.

Costs per Emergency Room Visit for Asthma, 2009

Age	Wicomico County		Maryland	
	Average	Total	Average	Total
Children (0-17 yrs)	\$282	\$119,379	\$658	\$12,188,425
Adults (18+ yrs)	\$300	\$194,834	\$647	\$13,795,690
Total	\$292	\$314,213	\$652	\$25,984,115

Maryland HSCRC, 2009.

In Wicomico County, private insurance was the source of payment for approximately 22% of asthma ED visits, while public insurance was the source of 54.6% of the visits.

Source of Payment for Asthma Emergency Room Visits, 2009

Source of Payment	Wicomico County	Maryland
Medicare	7.4%	5.2%
Medicaid	47.2%	40.4%
Private Insurance	22.0%	34.2%
Self Pay/Charity	22.0%	18.6%
Other/Unknown	1.4%	1.6%

Maryland HSCRC, 2009.

The average cost per asthma hospitalization for children was \$4,306 in Wicomico County and \$5,403 in Maryland. The average cost per asthma hospitalization for adults was \$7,668 in Wicomico County and \$7,397 in Maryland. The total average cost for an asthma hospitalization in Wicomico County was found to be statistically different than the state of Maryland.

Costs per Hospitalization for Asthma, 2009

Age	Wicomico County		Maryland	
	Average	Total	Average	Total
Children (0-17 yrs)	\$4,306	\$245,421	\$5,403	\$16,078,883
Adults (18+ yrs)	\$7,668	\$751,486	\$7,397	\$57,274,922
Total	\$6,432	\$996,907	\$6,843	\$73,353,805

Maryland HSCRC, 2009.

In Wicomico County, private insurance was the source of payment for approximately 23.9% of all 2009 asthma hospitalizations, while public insurance was the source of 70.3% of the stays.

Source of Payment for Asthma Hospitalizations, 2009

Source of Payment	Wicomico County	Maryland
Medicare	28.4%	26.0%
Medicaid	41.9%	34.0%
Private Insurance	23.9%	30.6%
Self Pay/Charity	5.8%	7.7%
Other/Unknown	0%	1.7%

Maryland HSCRC, 2009.

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