



Data Brief #3:

Asthma in the Older Adult

Background

This report presents data from the CDC Behavioral Risk Factor Surveillance System (BRFSS), the Maryland Health Services Cost Review Commission (HSCRC) Hospital Discharge Data, and the Maryland Vital Statistics Administration on asthma among elderly Marylanders. Rates are calculated based on population statistics from the National Center for Health Statistics (NCHS) Vintage Population Files. Where possible, data have been age-adjusted to the 2000 U.S. estimated population.

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

Asthma and the Older Adult: Asthma affects people of all ages, yet due to its frequent pediatric onset, interest in asthma is often focused on the young. However, adults, particularly older adults (defined as adults 65 years of age and older), are more likely to experience certain negative health effects and complications related to asthma. In fact, morbidity and mortality is particularly high in older adults. Asthma in the older adult is either due to late onset of the disease or the persistence of long-standing asthma and is often under-diagnosed. Diagnosing asthma in the older adult is often difficult because typical asthma symptoms are similar to those of heart and lung diseases. The loss of elastic recoil of the airways, a decrease in the lung function, concurrent chronic conditions, and resistance to asthma medication are a few of factors that may complicate the problem in older adults.^{1,2}

Table 1: Lifetime and Current Asthma among Adults aged 65 and Older, 2001-2007

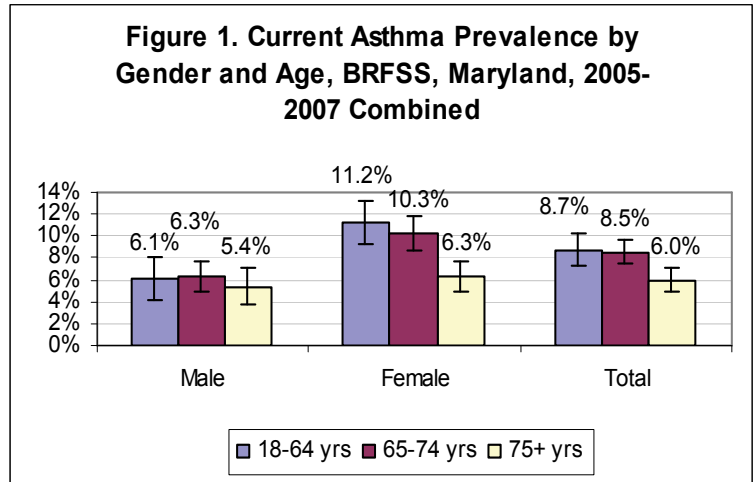
	LIFETIME ASTHMA				CURRENT ASTHMA			
	MD*		US ¹		MD*		US ¹	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
2001	7.5	+/- 2.3	8.7	+/- 0.42	5.4	+/- 2.0	6.0	+/- 0.35
2002	11.0	+/- 2.7	8.0	+/- 0.40	7.9	+/- 2.3	5.9	+/- 0.35
2003	10.4	+/- 2.6	8.1	+/- 0.41	7.2	+/- 2.2	5.8	+/- 0.35
2004	10.8	+/- 2.5	9.7	+/- 0.47	7.5	+/- 2.2	7.0	+/- 0.40
2005	8.3	+/- 1.6	9.9	+/- 0.44	6.1	+/- 1.4	7.6	+/- 0.37
2006	9.9	+/- 1.5	10.6	+/- 0.52	7.1	+/- 1.3	7.0	+/- 0.41
2007	12.9	+/- 1.6	na	na	8.8	+/- 1.4	na	na
2005-2007								
Total	10.4	+/- 0.9	na	na	7.4	+/- 0.8	na	na
Male	9.1	+/- 1.4	na	na	5.9	+/- 1.2	na	na
Female	11.3	+/- 1.2	na	na	8.4	+/- 1.1	na	na

Source: *Maryland BRFSS 2001-2007; ¹National Health Interview Survey 2001-2007, National Center for Health Statistics, Centers for Disease Control and Prevention

Asthma Prevalence: In 2007, approximately 13% of Maryland older adults reported that they had been diagnosed with asthma at some point in their lifetime. Roughly, 9% reported that they currently have a diagnosis of asthma, representing 59,000 older adults.

Between 2005 and 2007, adult females in Maryland had a higher prevalence of current asthma than males. Adult females, under 65 years of age, reported a significantly higher prevalence of current asthma than did males at ages 25-34, 45-54, and 55-64. Females between the age of 65 and 74 reported a significantly higher prevalence of current asthma than males between the age of 65 and 74 (10.3% vs. 6.3%). However, the combined prevalence of all older adult females did not have a significantly higher prevalence of current asthma than all older adult males (11.3% vs. 9.1%).

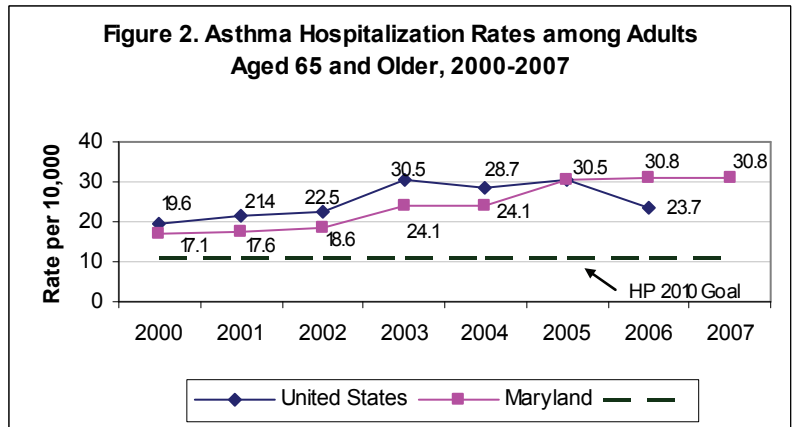
Overall, the prevalence of current asthma among older adults significantly decreased with age – 8.5% of Maryland adults aged 65-74 had asthma, as compared with 6.0% of those aged 75 and older.



Source: Maryland BRFSS, 2005-2007

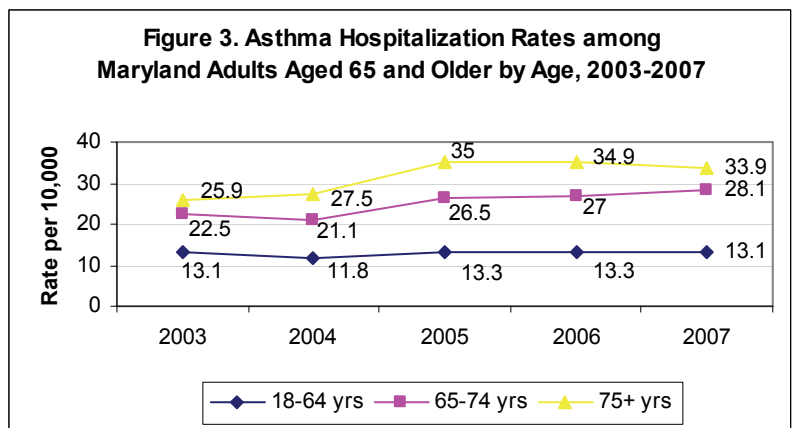
Asthma Hospitalization

From 2000 through 2007, asthma hospitalization rates of Maryland older adults continuously increased, particularly between 2002 and 2003. In 2007, there were 30.8 hospitalizations for asthma per 10,000 older adults for a total of 2,040 hospitalizations. During the past three years, Maryland older adults had a higher rate of asthma hospitalizations than Marylanders aged 0-14, 15-34, and 35-64. Though the asthma hospitalization rates for Maryland were lower than the hospitalization rates for U.S. for every year prior to 2006, both Nationally and statewide hospitalization rates continued to exceed Healthy People 2010 goals of 11.0 per 10,000.³



Source: 2000-2007 Maryland HSCRC

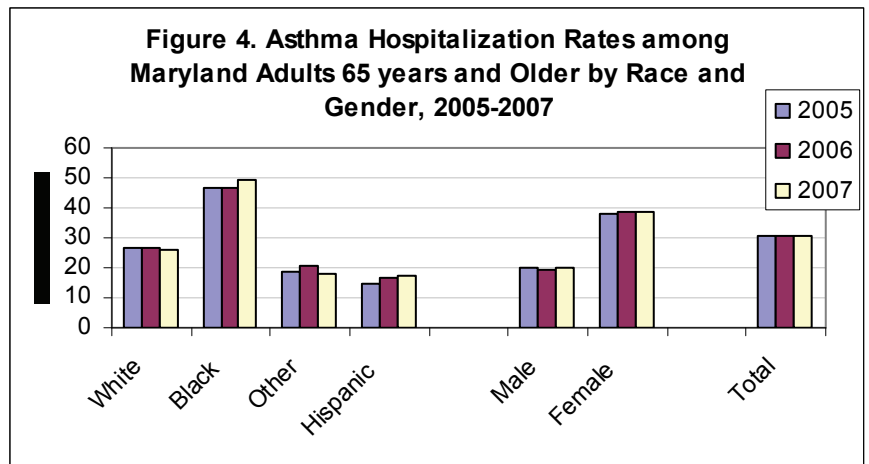
Hospitalization rates increased with age. Older adults ages 75 years and older had the highest rate of asthma hospitalization in Maryland among all adults in 2003-2007. In 2007, there was a slight decline in hospitalization in this age group. Rates of asthma-related hospitalizations were more than twice as high for older adults as compared to adults under age 65.



Source: 2003-2007 Maryland HSCRC

From 2000 to 2007, females and African American adults had a higher rate of asthma hospitalizations than males and other racial and ethnic groups. This finding is also observed among older adults.

Figure 4 shows that hospitalization rates for African Americans are nearly twice that of Whites. Hospitalization rates for older adult females continue to be nearly twice that of males.

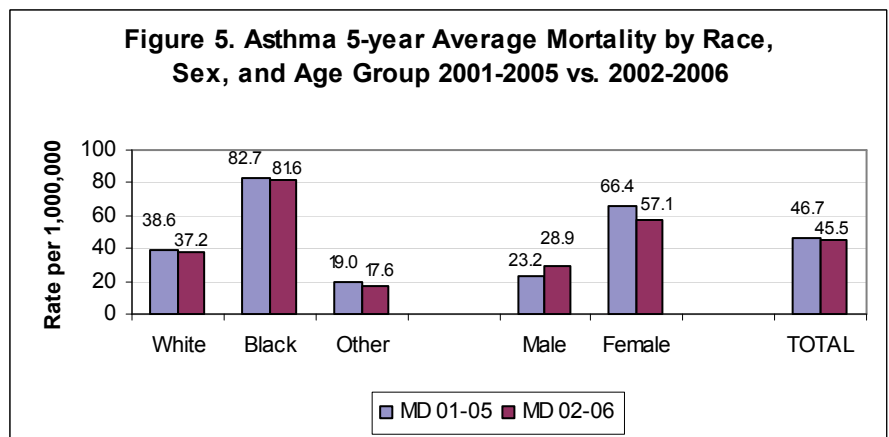


Source: Maryland HSCRC, 2005-2007

Asthma Mortality

Nationally, asthma mortality has declined since 1999. In 2006, 3,563 people died of asthma in the United States (age-adjusted rate of 1.1 per 100,000),⁴ a decrease of 23% from 1999. While overall deaths from asthma are declining, especially in children, adolescents and younger adults, the majority of deaths, nationwide, in which asthma is listed as the underlying cause are seen in older adults.

From 2002-2006, an average of 29 Maryland residents, over the age of 64, died each year from asthma as an underlying cause (average annual age-adjusted rate of 45.5 per 100,000). Females are more likely to die of asthma complications than males in both Maryland and the United States. The average annual asthma mortality rate among Maryland older adults was 28.9 per 100,000 for males as compared with 57.1 per 100,000 for females. Older adult males and females in the United States have similar asthma mortality rates as those in Maryland.



Source: Maryland Vital Statistics Administration, 2002-2006

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