Summary

The Jurisdiction Level Data Series and the Asthma Profiles were created by the Maryland Asthma Control Program to help guide local program planning to address asthma morbidity and mortality. The data are from the Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System (BRFSS) and the Maryland Health Services Cost Review Commission (HSCRC). Since some Maryland residents are hospitalized in neighboring states, data on hospitalization of Maryland residents from the Maryland Health Care Commission (MHCC), West Virginia Health Care Authority (WVHCA), Pennsylvania Health Care Cost Containment Council1 (PHC4), and Delaware Department of Health (DDH) are included when possible. Rates are calculated based on population statistics from the National Center for Health Statistics (NCHS) Vintage 2006 Population Files, and are age-adjusted to the 2000 U.S. Census population.

Asthma Prevalence

Prevalence is the proportion of individuals who have asthma at a specific point in time. Lifetime prevalence is the proportion of individuals who have ever been diagnosed with asthma. Current prevalence refers to the proportion of individuals who still have a diagnosis of asthma at the time the question is asked. Data are obtained from BRFSS. The BRFSS is a statewide telephone survey administered to approximately 45,000 households. Adults were asked, “Have you ever been told by a doctor, nurse, or health professional that you had asthma? [If yes], Do you still have asthma?” Pediatric asthma prevalence was posed to adults, “Has a doctor, nurse or other health professional EVER said that the child has asthma?” and [If Yes] “Does the child still have asthma?”

Overall prevalence for all ages is available on www.marylandasthmacontrol.org.

Asthma Emergency Department Visits and Hospitalizations

Emergency department (ED) visit and hospitalization data include rates (number per 10,000 residents), average charges, and source of payment. Since some Maryland residents are hospitalized in neighboring states, data on hospitalization of Maryland residents from the District of Columbia, West Virginia, Pennsylvania, and Delaware, are included when possible. Data were obtained from 2006 Emergency Department and Patient Hospital Discharge Datasets provided by HSCRC. These datasets contain deidentified health record level detail on patient demographics, diagnoses, services, residence location, and charges for every ED visit and hospitalization in Maryland to a non-federal institution. Asthma hospitalizations and ED visits are identified by principal diagnosis code using ICD-9 code 493. The data are based upon the number of ED visits/hospitalizations and not the number of unique individuals who visited the ED or that were hospitalized. Overall rates for all ages and by race/ethnicity are available on www.marylandasthmacontrol.org.

Average Charges per Emergency Department Visit and Hospitalization

The average charges measures the average cost associated with each ED visit or hospitalization. This is presented for adults and children. It is important to note that charges are used as estimates of the actual cost of asthma ED visits and hospitalizations. Data is not available for all costs related to asthma care. In addition, not all hospitals report charges to HSCRC.

1 “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 health care 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, express or implied, that the data -- financial, patient, payer, 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.”
Source of Payment

Insurance status or source of payment measures the source from which the hospital expected to receive payment for charges incurred from the ED visit or hospitalization. This measure is presented for adults and children. For the purpose of this analysis, sources of payment were grouped into the following five categories:

- Medicare = Medicare (including HMO/PPO)
- Medicaid = Medicaid (including HMO/PPO/State Only)
- Private Insurance = private insurance company, HMO, PPO, Blue Cross/Blue Shield, commercial insurance
- Self-Pay/Charity/Donor = Self-Pay, charity care, no charge
- Other = workers’ compensation, unknown, Title V, and other governmental sources.

Missing Data

When data are based on very small cell sizes, they are considered statistically unreliable and are not included. These are signified by dashes in the tables in both the Jurisdiction Level Data Series and in the Jurisdiction Asthma Profiles. In the disparities and HP2010 graphs in the Jurisdiction Asthma Profiles, missing bars indicate that the number of events were too small to calculate reliable rates. Data obtained from the BRFSS survey are determined to be statistically unreliable based on the size of the standard error of each estimate. For asthma ED and hospitalization data, rates are considered statistically unreliable if based on less than 20 events. Counts of less than five are not shown due to issues of confidentiality.

For counties where most of the data for HP2010 and asthma disparities are missing due to small numbers, three-year aggregated data (2004-2006) are presented. These counties are:

Caroline, Cecil, Dorchester, Kent, Queen Anne’s, Somerset, Talbot, Wicomico, and Worcester.

For the period 2004-2006, the three-year average asthma rates per 10,000 were generated as follows: the total number of asthma-related event for the three-year period was divided by three to get the average number of asthma-related event per year. The average number of asthma-related event was then divided by the middle year population (2005) and multiplied by 10,000.

More Information

For more information on data sources and limitations as well as how to interpret 95% confidence intervals, please see www.marylandasthmacontrol.org or our surveillance report, Asthma in Maryland (also available on our web site).