# Asthma Emergency Department Visits and Hospitalizations in Florida

This fact sheet presents emergency department (ED) visits and hospitalizations from 2007 to 2011 for cases with asthma listed as the primary diagnosis (ICD-9 code 493). Asthma is a public health priority as prevalence, costs related to asthma, and rates of ED visits and hospitalizations are increasing in Florida and nationally.



Asthma is a chronic lung disease characterized by inflammation of the airways and recurring attacks of symptoms such as wheezing, coughing, and chest tightness. ED visits and hospitalizations are indicators of poorly controlled asthma, because asthma symptoms can be controlled with proper education, clinical treatment, medication regiment, and environmental management.

### 2007 to 2011 Asthma Trends

The number of asthma ED visits increased by 13.6% from 78,531 in 2007 to 89,181 in 2011. The number of asthma hospitalizations increased by 7.8% from 27,615 in 2007 to 29,776 in 2011. During this time, the total charges associated with these visits incurred by Florida's healthcare system increased by 76.0% and 49.2% respectively.<sup>1</sup> More detailed information about the charges associated with asthma ED and hospitalization visits can be found in the report, *Exploring the Financial Burden of Asthma in Florida: Charges Associated with Asthma Emergency Department Visits and Hospitalizations*.



#### 2011 Asthma Data

In 2011, there were 89,181 ED visits and 29,776 hospitalizations in Florida with asthma listed as the primary diagnosis. The crude rate of asthma ED visits in Florida was 47.10 per 10,000 Floridians, and the crude rate of asthma hospitalizations in Florida was 15.73 per 10,000 Floridians.

Females had a higher rate of ED visits and hospitalizations (49.13 and 19.63 per 10,000 respectively) than males (44.98 and 11.65 per 10,000 respectively). Non-Hispanic whites had the lowest and non-Hispanic blacks had the highest rates of ED visits and hospitalizations (Table 1). Children under the age of 10 had the highest ED rates. Children under the age of 10 and adults over the age of 70 had the highest hospitalization rates. For more detailed descriptions by age, please view the <u>Adult Asthma in Florida, 2000-2010</u> and <u>Childhood Asthma in Florida, 2006-2010</u> reports.

<sup>&</sup>lt;sup>1</sup> Exploring the Financial Burden of Asthma in Florida: Charges Associated with Asthma Emergency Department Visits and Hospitalizations. Available: <u>http://www.doh.state.fl.us/Environment/medicine/Asthma/FinancialBurdenReport.pdf</u>

## Asthma Emergency Department Visits and Hospitalizations in Florida

		Asthma ED Visits		Asthma Hospitalizations	
		Counts	Crude Rates	Counts	Crude Rates
Gender	Female	47,523	49.13	18,991	19.63
	Male	41,658	44.98	10,785	11.65
Race / Ethnicity	Non-Hispanic White	32,068	29.39	13,805	12.65
	Non-Hispanic Black	32,766	112.80	8,438	29.05
	Hispanic	21,119	48.97	6,495	15.06
Age Group	0 - 4	18,127	168.65	4,254	39.58
	5 – 9	13,733	127.17	2,359	21.85
	10 - 14	8,007	70.76	1,023	9.04
	15 – 29	17,464	47.43	1,651	4.48
	30 – 44	14,373	40.53	3,441	9.70
	45 – 59	11,667	29.24	7,060	17.69
	60 – 69	3,397	15.60	4,003	18.38
	70 – 79	1,573	11.11	3,151	22.25
	80 +	840	8.76	2,834	29.55
FLORIDA TOTAL		89,181	47.10	29,776	15.73

 Table 1. Counts and Rates per 10,000 of Emergency Department Visits and

 Hospitalizations with Asthma Listed as the Primary Diagnosis, Florida, 2011

### **County-Specific Asthma Data**

County-level data, including counts, crude rates, age-adjusted rates, and average daily counts of asthma ED visits and hospitalizations are included in the child and adult reports mentioned above and are also available from the Environmental Public Health Portal, at <u>www.FloridaTracking.com</u>.

### **Repeat Patients**

Poor asthma management results in multiple visits to the ED or hospital. To identify the number of Florida patients with more than one visit in 2011, a single dataset was created by combining the ED visit and the hospitalization datasets for that year. Individual patients were identified by matching masked, or de-identified, social security numbers (SSN). Patients with unknown SSN were removed from the analysis because it cannot be determined if these individuals had one or more visits.

From this dataset, there were a total of 78,396 identifiable patients that had an ED visit or hospitalization with asthma listed as the primary diagnosis in 2011. The majority of these patients (82.8%) had only one ED visit OR one hospitalization during the year. The remainder of these patients (17.2%) had two or more visits, accounting for 36.0% of all asthma ED visits or hospitalizations and 36.1% of the total charges.<sup>1</sup>

Individuals and the health care system as a whole can greatly benefit from improvements in asthma control and reduction in repeat visits. Hospitals can assess their readmission rates to identify individuals most in need and work with clinicians and community partners (schools, childcare centers and non-profits) to provide targeted care. The National Heart, Lung, and Blood Institute's *Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma* recommends that clinicians provide patients with necessary medications and education on how to use them, a referral for a follow up appointment, and instruction in an asthma discharge plan for recognizing and managing relapse of the exacerbation. It is also recommended that emphasis be placed on the need for continual, regular care in an outpatient setting. A referral to an asthma self-management education program should also be considered.