

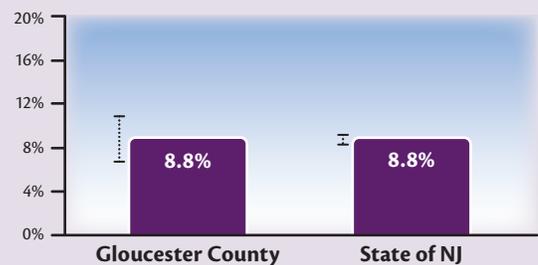
# Asthma in New Jersey



## Gloucester County Asthma Profile

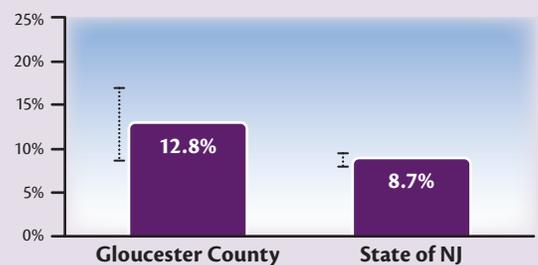
*Asthma is a serious chronic disease that is marked by inflammation and bronchoconstriction in the airways. Asthma symptoms can be triggered by many factors and include shortness of breath, coughing, wheezing and chest tightness. Asthma cannot be cured, but it can be controlled. Uncontrolled asthma can lead to emergency department visits, hospitalization and even death. This series of profiles is designed to give an overview of the prevalence of asthma and hospital utilization due to asthma (emergency department and inpatient admissions) in each New Jersey county. The purpose is to inform community based organizations, health care organizations, program planners, and policy makers about geographic areas and demographic groups most affected by asthma for application in effective targeting of asthma interventions.*

Figure 1 | **Estimated Percent of Adults with Current Asthma**



Population Source: NJ Behavioral Risk Factor Survey (Adults are people 18 and over; children are people under 18)

Figure 2 | **Estimated Percent of Children with Current Asthma**

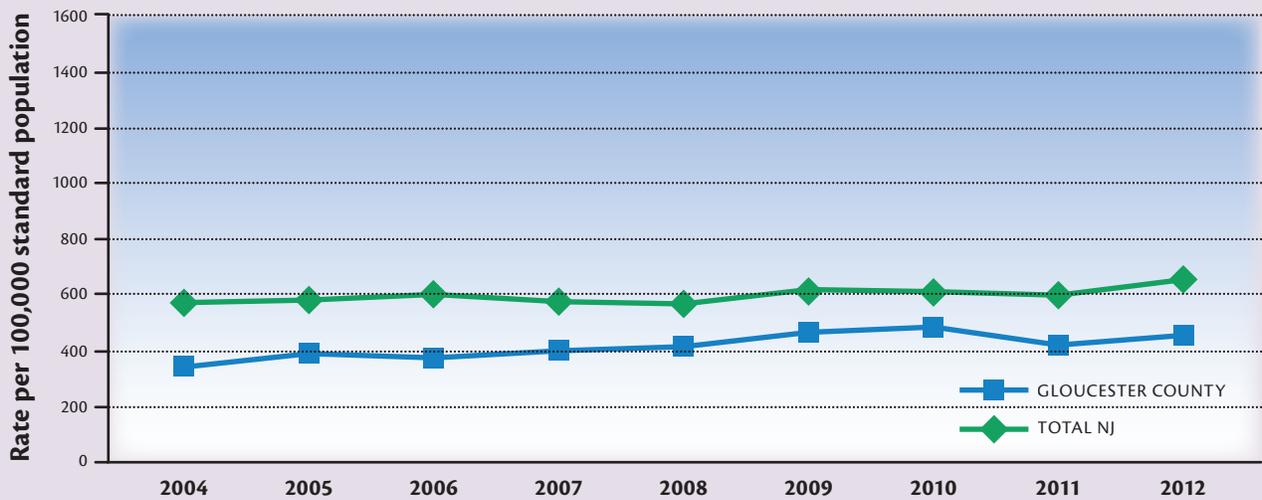


Population Source: NJ Behavioral Risk Factor Survey (Adults are people 18 and over; children are people under 18)

### Prevalence

Health survey data show that for 2011–2012, an estimated 19,168 adults (8.8 percent) and 8,584 children (12.8 percent) currently had asthma in Gloucester County. This compares with an estimated 8.8 percent of adults and 8.7 percent of children in the state. Figures 1 and 2 show the 95 percent confidence intervals for the survey measurements. Taking into account measurement error, we cannot say that Gloucester County's current asthma prevalence among adults or children differed from the state average.

Figure 3 | Age-adjusted asthma ED visits per 100,000 population



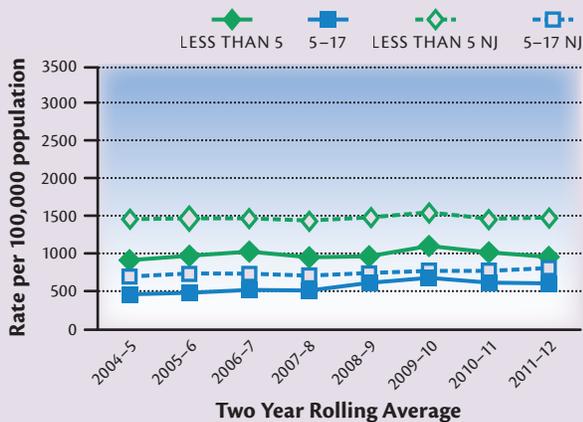
Direct method of age-adjustment using the 2000 U.S. standard population  
 Data source: 2004–2012 New Jersey ED Discharge Files  
 Population source: CDC: Vintage 2012 Bridged-Race Population Estimates; July 1, 2000–July 2009 Revised Bridged-Race Intercensal Population Estimates

### Emergency Department (ED) Visits<sup>1</sup>

With appropriate management, asthma can be controlled so that most visits to the ED are avoided. In 2012, residents of Gloucester County had 1,260 total asthma ED visits, or 435 per 100,000 residents, compared with the state average of 637 asthma ED visits per 100,000 residents. Gloucester County contains 3.3 percent of the state’s population and accounted for 2.2 percent of the state’s asthma ED visits in 2012. Figure 3 shows Gloucester

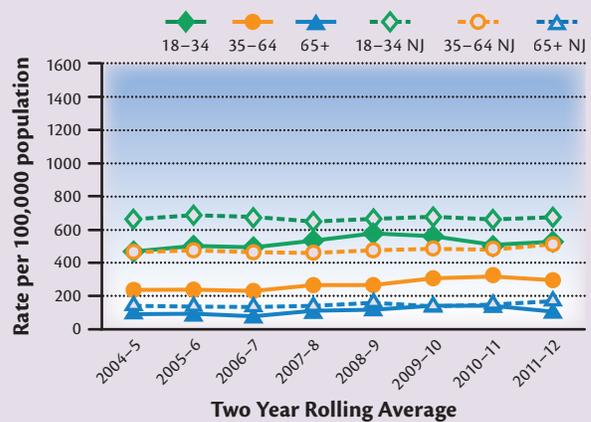
County’s asthma ED visit rates compared with the overall rate in the state of New Jersey for the years 2004–2012 (adjusted to standardize for age differences in the population). Gloucester County’s rate of asthma ED visits was below the state average by 22 to 39 percent during the period, and increased by 30 percent over the period while the state average increased 14 percent.

Figure 4 | Asthma ED visits per 100,000 population for children, Gloucester County and State of NJ



Data source: 2004–2012 New Jersey ED Discharge Files  
 Population source: CDC: Vintage 2012 Bridged-Race Population Estimates; July 1, 2000–July 2009 Revised Bridged-Race Intercensal Population Estimates

Figure 5 | Asthma ED visits per 100,000 population for adults, Gloucester County and State of NJ

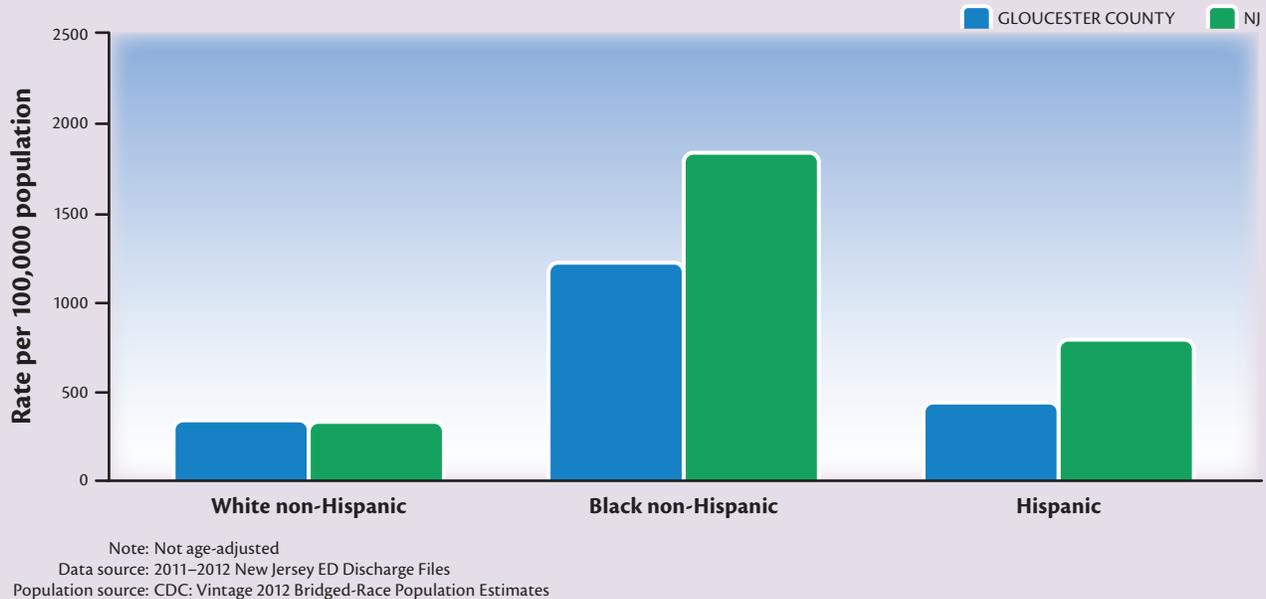


Data source: 2004–2012 New Jersey ED Discharge Files  
 Population source: CDC: Vintage 2012 Bridged-Race Population Estimates; July 1, 2000–July 2009 Revised Bridged-Race Intercensal Population Estimates

Asthma ED visits tend to vary by age, with children having higher visit rates than adults. Figures 4 and 5 show asthma ED visit rates per 100,000 population for Gloucester County children and adults, and children and adults in the state of New Jersey from 2004–2012 (rolling averages are used for comparability because of low numbers in some age groups in some counties).

Rates for all age groups were at or below their respective state averages over the period. Rates for all age groups except adults ages 65 and over increased more than their state averages. The largest increase was in asthma ED visit rates for adults ages 35–64, which increased by 28 percent, compared with a nine percent increase in the state average for that age group.

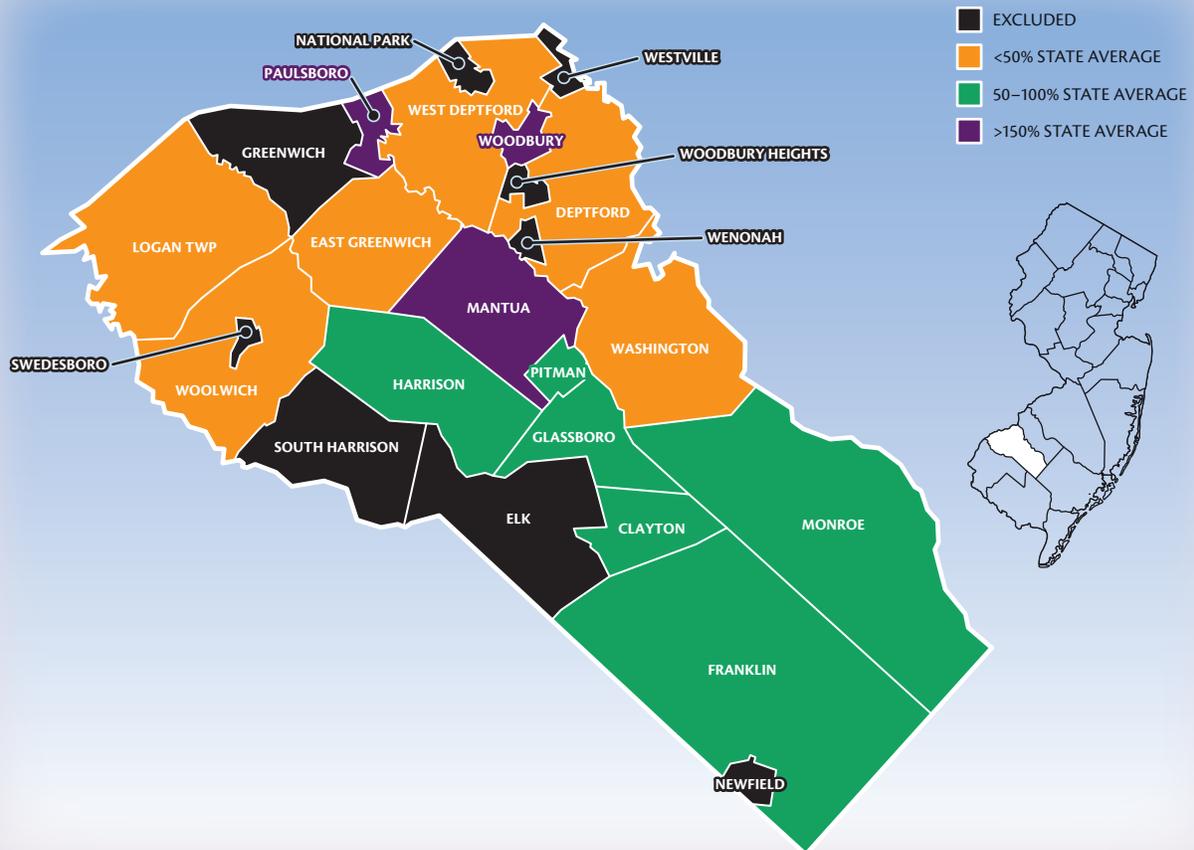
Figure 6 | Asthma ED visit rate per 100,000 population, 2011–2012



Asthma ED visits also vary quite a bit among racial and ethnic groups. Figure 6 shows asthma ED visit rates per 100,000 population for select racial/ethnic groups in Gloucester County and the state of New Jersey for 2011–2012.<sup>2</sup> The highest rate was for non-Hispanic black residents of Gloucester County, at 3.7 times the rate for non-Hispanic white residents and 2.8 times the rate for Hispanic residents. The asthma ED visit rate for Hispanic residents was 1.3 times the rate for non-Hispanic white residents. When comparing Gloucester County racial and ethnic groups to their state averages, the rate for Hispanic residents was below their state average by 44 percent and the rate for non-Hispanic black residents was below their state average by 34 percent. The rate for non-Hispanic white residents was above their state average by three percent.

The following map and table show the asthma ED visit rate by municipality of residence in Gloucester County from 2008–2012 (only municipalities with a population of 5,500 or greater are shown). Woodbury, Paulsboro and Mantua each had rates more than 1.5 times the state average, accounting for 29 percent of Gloucester County’s asthma ED visits while only holding 11 percent of the population. The collective total of the municipalities with a population less than 5,500 had asthma ED visit rates above the state average—these smaller municipalities together accounted for 20 percent of asthma ED visits while only constituting 10 percent of the resident population.

Figure 7 | Asthma Emergency Department Visits for Gloucester County Residents, 2008–2012



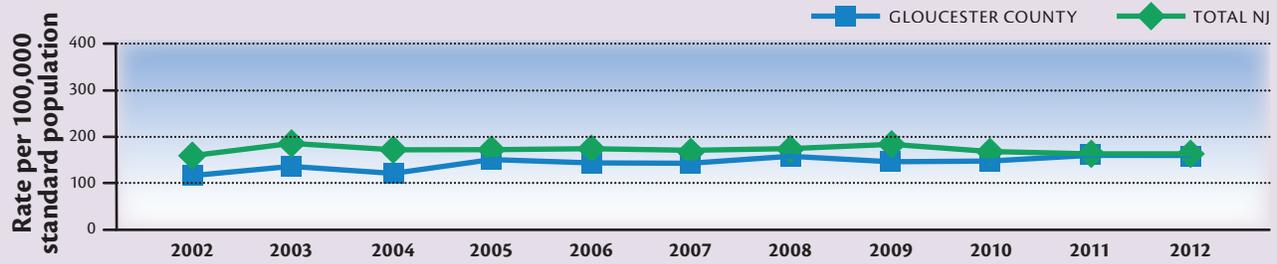
Municipality	Average population, 2008–2012	Asthma ED visits, 2008–2012	Percent of County ED visits	Percent of County Population	Asthma ED visit rate per 100,000 residents, 2008–2012	Age-adjusted* asthma ED visit rate per 100,000 residents, 2008–2012
Clayton borough	7,938	241	3.8%	2.7%	607	599
Deptford township	30,609	241	3.8%	10.6%	157	171
East Greenwich township	9,136	86	1.4%	3.2%	188	178
Franklin township	17,008	451	7.2%	5.9%	530	556
Glassboro borough	19,165	498	7.9%	6.6%	520	609
Harrison township	12,499	186	3.0%	4.3%	298	322
Logan township	6,127	16	0.3%	2.1%	52	55
Mantua township	15,179	761	12.1%	5.3%	1,003	1,064
Monroe township	35,137	870	13.9%	12.2%	495	504
Paulsboro borough	6,076	395	6.3%	2.1%	1,300	1,265
Pitman borough	9,076	140	2.2%	3.1%	309	330
Washington township	49,848	293	4.7%	17.2%	118	133
West Deptford township	21,776	137	2.2%	7.5%	126	139
Woodbury city	10,259	688	11.0%	3.5%	1,341	1,418
Woolwich township	10,067	30	0.5%	3.5%	60	52
Municipalities below 5,500 population	29,218	1,240	19.8%	10.1%	849	n/a
<b>Gloucester County</b>	<b>289,118</b>	<b>6,273</b>			<b>434</b>	<b>455</b>
<b>State of NJ</b>	<b>8,774,778</b>	<b>261,822</b>			<b>597</b>	<b>622</b>

\*Direct method of age-adjustment using the 2000 U.S. standard population

Data source: 2008–2012 New Jersey ED Discharge Files

Population sources: NJ Department of Labor and Workforce Development: Municipal Estimates; US Bureau of the Census, 2010 Census Summary File 2 (QT-P2)

Figure 8 | **Age-adjusted asthma hospitalizations per 100,000 population**



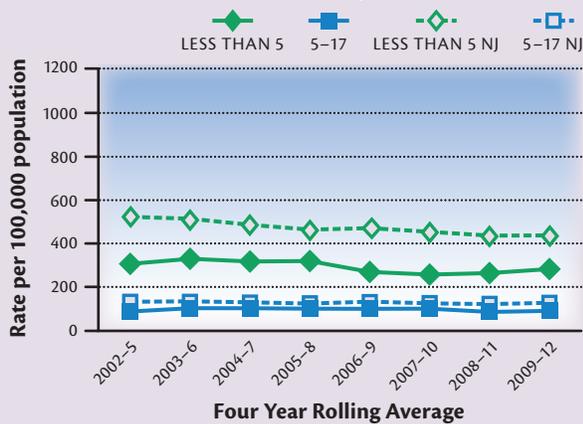
Direct method of age-adjustment using the 2000 U.S. standard population  
 Data source: 2002–2012 New Jersey Hospital Discharge Files  
 Population source: CDC: Vintage 2012 Bridged-Race Population Estimates; July 1, 2000–July 2009 Revised Bridged-Race Intercensal Population Estimates

## Hospitalizations<sup>1</sup>

As with ED visits, most asthma-related hospitalizations can be avoided through appropriate management. In 2012, residents of Gloucester County had 470 total asthma hospitalizations, or 162 per 100,000 residents, compared with the state average of 168 asthma hospitalizations per 100,000 residents. Gloucester County contains 3.3 percent of the state’s population and accounted for 3.2 percent of the state’s asthma hospitalizations in 2012. Figure 8

shows Gloucester County’s asthma hospitalization rates compared with the overall rate in the state of New Jersey for the years 2002–2012 (adjusted to standardize for age differences in the population). Gloucester County’s rate began the decade 27 percent below the state average, but nearly caught up by the end, growing 38 percent over the decade while the state average grew by four percent.

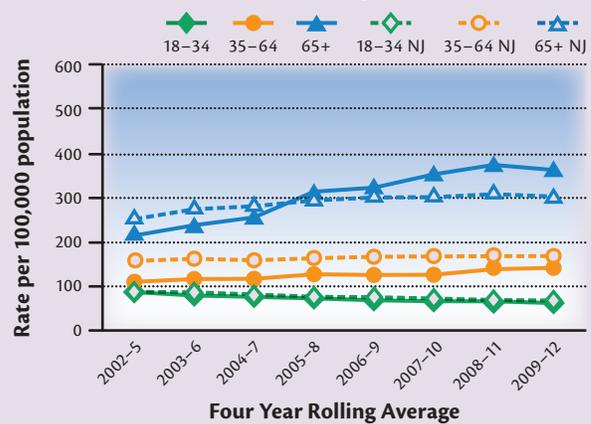
Figure 9 | **Asthma hospitalizations per 100,000 population for children, Gloucester County and State of NJ**



Data source: 2002–2012 New Jersey Hospital Discharge Files  
 Population source: CDC: Vintage 2012 Bridged-Race Population Estimates; July 1, 2000–July 2009 Revised Bridged-Race Intercensal Population Estimates

Asthma hospitalizations tend to be highest among the youngest and oldest residents. Figures 9 and 10 show asthma hospitalization rates per 100,000 population for Gloucester County children and adults, and children and adults in the state of New Jersey from 2002–2012 (rolling averages are used for comparability because of low numbers in some age groups in some counties). Rates for children and adults ages 35–64 years were below their respective state averages over the period. Rates for adults ages 18–34 began the decade above their state average but fell by 30 percent over the

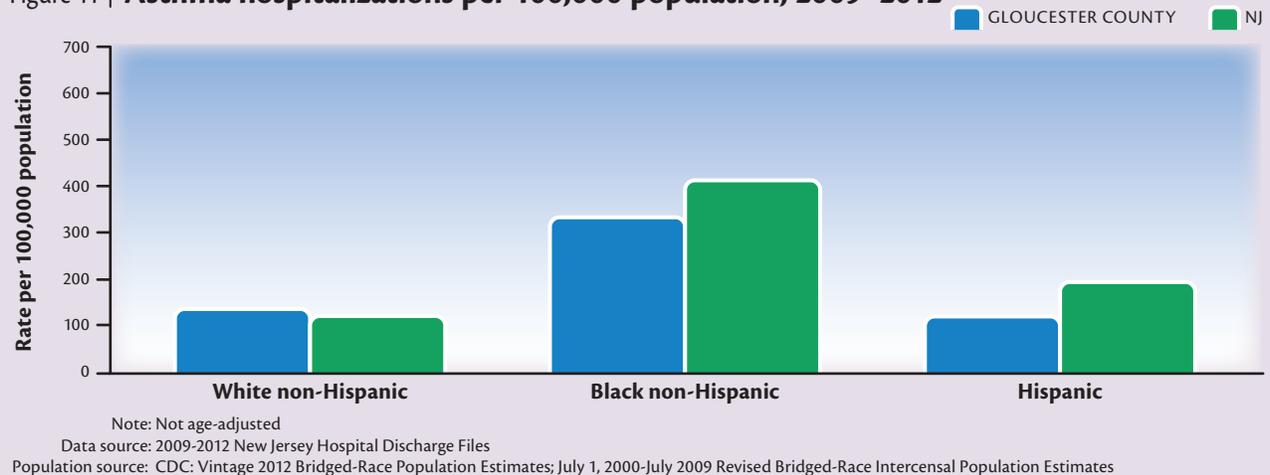
Figure 10 | **Asthma hospitalizations per 100,000 population for adults, Gloucester County and State of NJ**



Data source: 2002–2012 New Jersey Hospital Discharge Files  
 Population source: CDC: Vintage 2012 Bridged-Race Population Estimates; July 1, 2000–July 2009 Revised Bridged-Race Intercensal Population Estimates

period compared with a 22 percent decline in the state average, so they ended the decade 5 percent below their state average. Asthma hospitalization rates for Gloucester County adults 65 and older began the period 11 percent below their state average but grew by 62 percent over the decade compared with an 18 percent increase in the state average, so they ended the decade 21 percent above their state average. Rates for adults ages 35–64 grew faster than their state average (28 percent versus seven percent)—by the end of the decade they were 14 percent below their state average.

Figure 11 | **Asthma hospitalizations per 100,000 population, 2009–2012**



Asthma hospitalizations also vary quite a bit among racial and ethnic groups. Figure 11 shows asthma hospitalization rates per 100,000 population for select racial/ethnic groups in Gloucester County and the state of New Jersey from 2009–2012.<sup>2</sup> Non-Hispanic black residents of Gloucester County had the highest asthma hospitalization rate—2.4 times the rate for non-Hispanic white residents and 2.8 times the rate for Hispanic residents. The asthma hospitalization rate for Hispanic residents was 0.88 times

(12 percent below) the rate for non-Hispanic white residents. When comparing Gloucester County racial and ethnic groups to their state averages, the rate for Hispanic residents was below the state average for Hispanic people by 38 percent and the rate for non-Hispanic black residents was 20 percent below their state average. The rate for non-Hispanic white residents was above their state average by 12 percent.

## Summary

Gloucester County’s asthma prevalence in 2011–2012 does not differ significantly from the state average when looking at current asthma among adults and children. Rates of asthma-related emergency department (ED) visits and asthma-related hospitalizations grew faster than the state average in the past decade. Asthma-related ED visits remained below the state average during 2004–2012, but asthma-related hospitalizations were about equal with the state average by 2012.

Asthma-related ED visit rates for all Gloucester County age groups were at or below their respective state averages in the past decade. However, rates for all age groups except adults ages 65 and over increased more than their state averages. The largest increase was in asthma ED visit rates for adults ages 35–64. Asthma hospitalization rates for all age groups except adults ages 65 and over ended the decade below their state averages. Asthma hospitalization rates for Gloucester County adults 65 and older began the period below their state average but ended the decade 21 percent above their state average. Rates for adults ages 35–64 also grew faster than their state average but remained below it.

Non-Hispanic black residents of Gloucester County had the highest rates of both asthma ED visit rates (2011–2012) and asthma hospitalizations (2009–2012) compared with non-Hispanic white and Hispanic residents. The asthma ED visit rate for non-Hispanic black residents was 3.7 times the rate for non-Hispanic white residents and the asthma hospitalization rate was 2.4 times as high. The asthma ED visit rate for Hispanic residents was 1.3 times the rate for non-Hispanic white residents, but the asthma hospitalization rate for Hispanic residents was 0.88 times (12 percent below) the rate for non-Hispanic white residents.

An analysis of asthma-related ED visits by municipality from 2008–2012 showed that Woodbury, Paulsboro and Mantua each had rates more than 1.5 times the state average, accounting for 29 percent of Gloucester County’s asthma ED visits while only holding 11 percent of the population. The collective total of the municipalities with a population less than 5,500 had asthma ED visit rates above the state average—these smaller municipalities together accounted for 20 percent of asthma ED visits while only constituting 10 percent of the resident population.

## For more information:

New Jersey Asthma Awareness and Education Program: [www.nj.gov/health/asthma](http://www.nj.gov/health/asthma)

## For asthma resources and tools:

Pediatric Adult Asthma Coalition of New Jersey (PACNJ): [www.pacnj.org](http://www.pacnj.org)

## Notes:

- <sup>1</sup> Data on asthma-related ED visits and hospitalizations are derived from hospital uniform billing (UB) information, which is used to submit claims for health care. Some variables are not required for claim processing (such as race, ethnicity, and municipality of residence), and should be interpreted with caution. Our figures also use population estimates, which are subject to measurement error that may differ across population subgroups (for example, people who are homeless, move frequently or lack legal documentation for residence may be more difficult to measure).
- <sup>2</sup> There are many racial and ethnic groups in addition to the three shown in the figure. However, not all groups are adequately captured in the uniform billing data over time, and many groups do not have sufficient numbers across all counties to allow for a standard presentation. In addition, data on Hispanic ethnicity should be interpreted with caution as it may conceal important differences among sub-groups.

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