

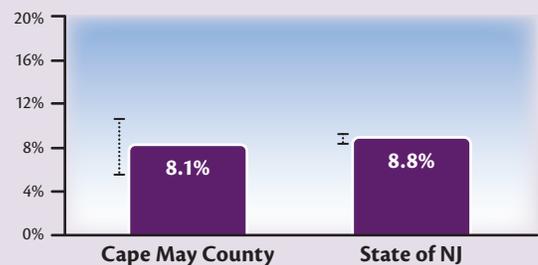
Asthma in New Jersey



● Cape May County Asthma Profile

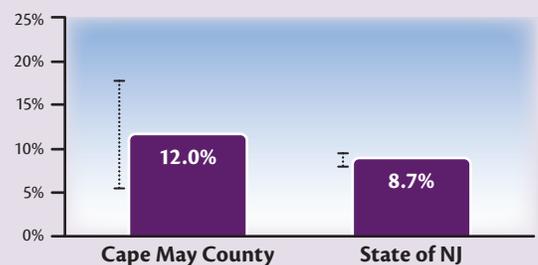
Asthma is a serious chronic disease that is marked by inflammation and bronchoconstriction in the airways. Asthma symptoms can be triggered by many factors and include shortness of breath, coughing, wheezing and chest tightness. Asthma cannot be cured, but it can be controlled. Uncontrolled asthma can 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**

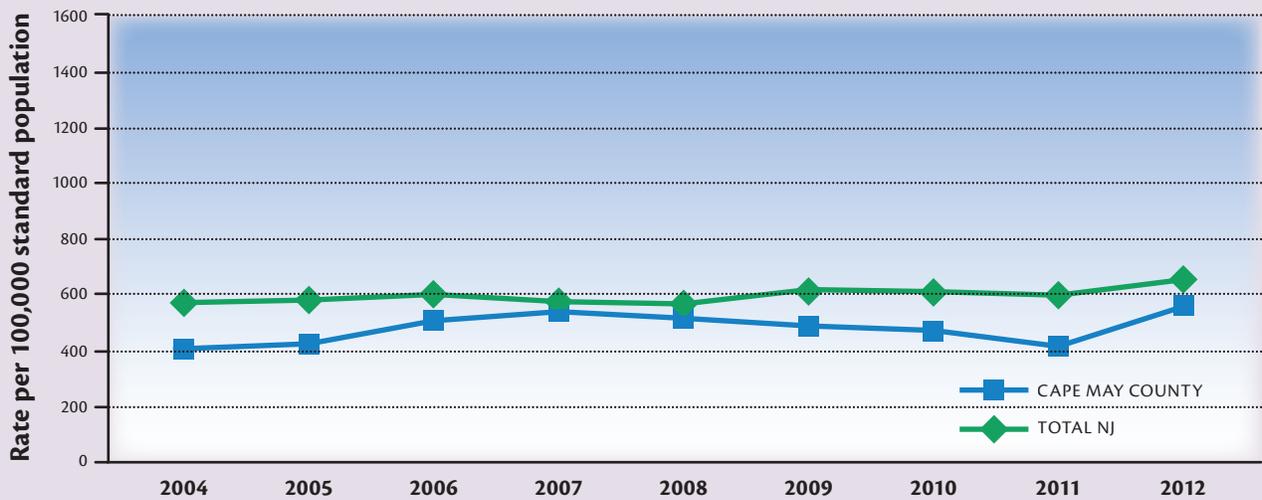


Population Source: NJ Behavioral Risk Factor Survey (Adults are people 18 and over; children are people under 18)

Prevalence

Health survey data show that for 2011–2012, an estimated 6,069 adults (8.1 percent) and 2,266 children (12.0 percent) currently had asthma in Cape May 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 Cape May 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) Visits¹

With appropriate management, asthma can be controlled so that most visits to the ED are avoided. In 2012, residents of Cape May County had 442 total asthma ED visits, or 459 per 100,000 residents, compared with the state average of 637 asthma ED visits per 100,000 residents. Cape May County contains 1.1 percent of the state’s population and accounted for 0.8 percent

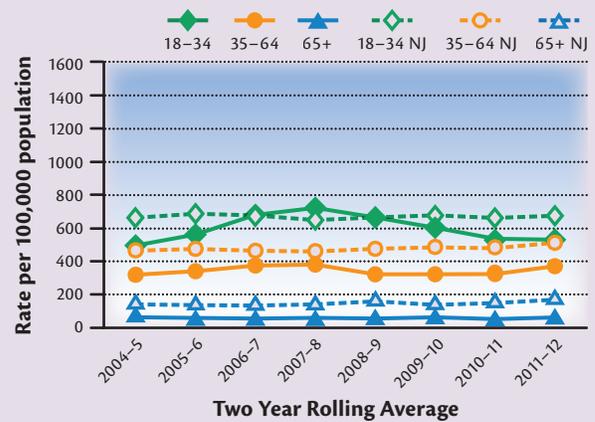
of the state’s asthma ED visits in 2012. Figure 3 shows Cape May County’s asthma ED visit rates compared with the overall rate in the state of New Jersey for the years 2004–2012 (adjusted to standardize for age differences in the population). Cape May County’s rate of asthma ED visits was below the state average by 20 percent on average during the period.

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

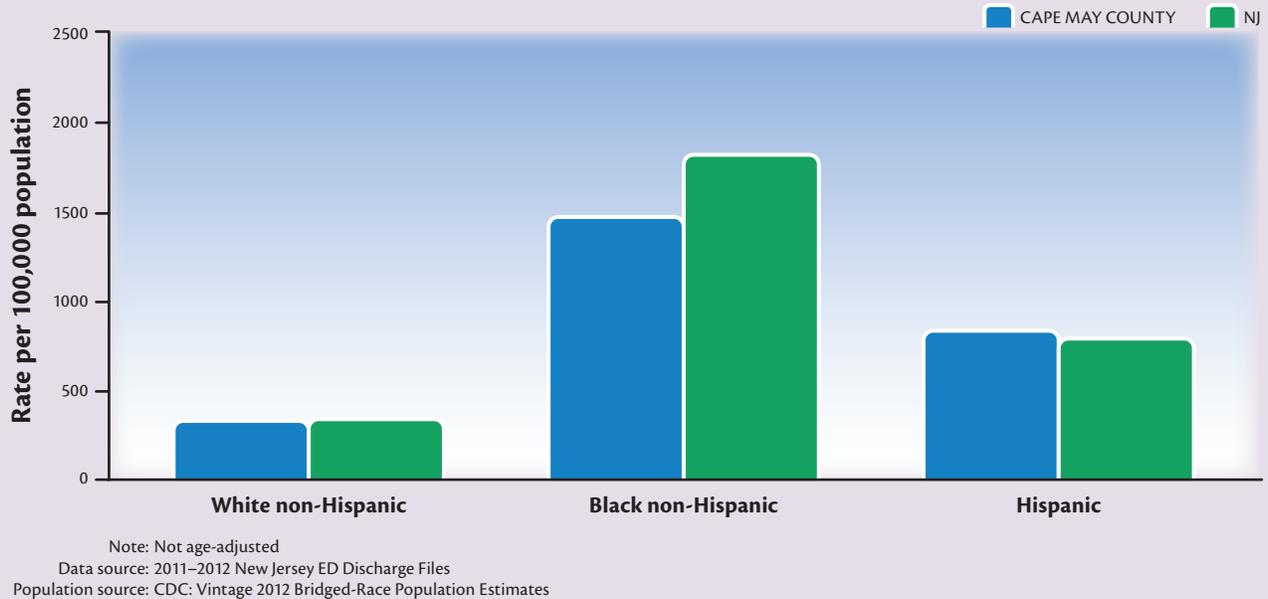


Data source: 2004–2012 New Jersey ED Discharge Files
 Population source: CDC: Vintage 2012 Bridged-Race Population Estimates; July 1, 2000–July 2009 Revised Bridged-Race Intercensal Population Estimates

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 Cape May 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 except adults 18–34 were below their respective state averages over the period. Rates for all age groups were below their state averages in 2011–2012.

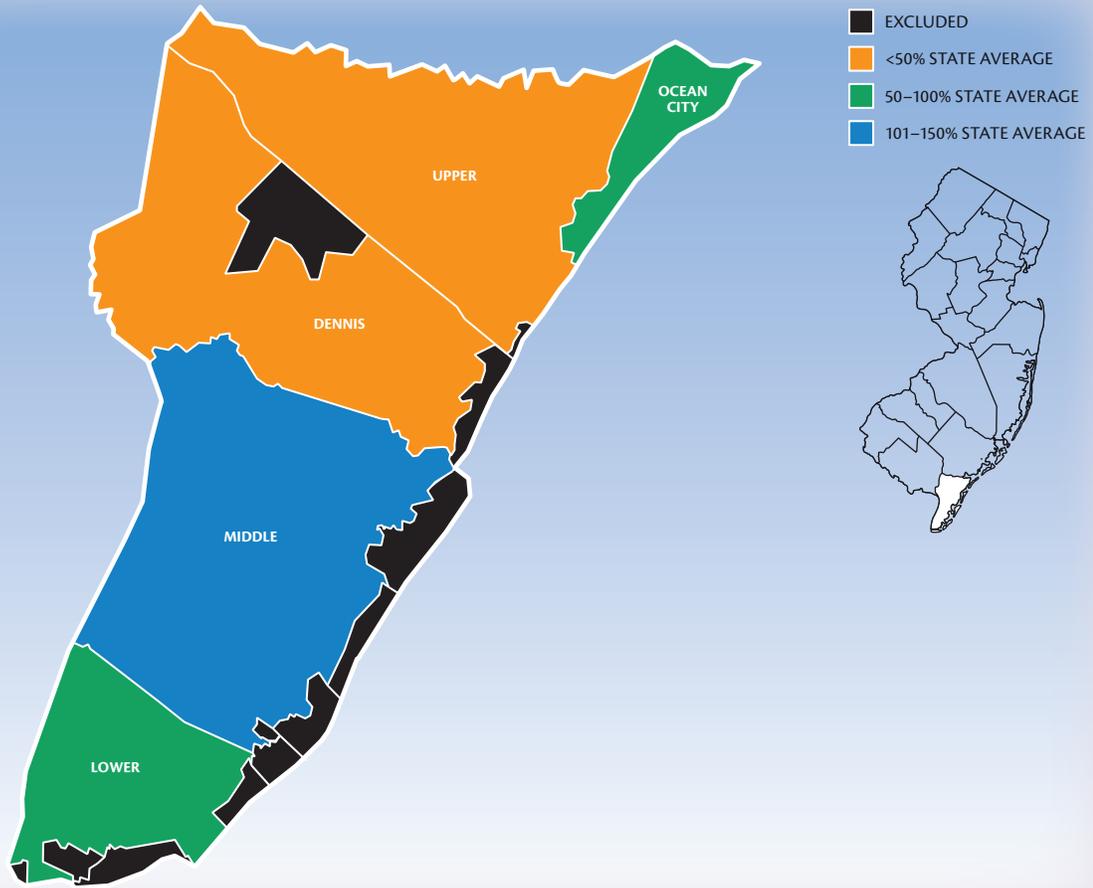
Figure 6 | Asthma ED visit rate per 100,000 population, 2011–2012



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 Cape May County and the state of New Jersey for 2011–2012.² The highest rate was for non-Hispanic black residents of Cape May County, at five times the rate for non-Hispanic white residents and 1.8 times the rate for Hispanic residents. The asthma ED visit rate for Hispanic residents was 2.8 times the rate for non-Hispanic white residents. When comparing Cape May County racial and ethnic groups to their state averages, the rate for non-Hispanic black residents was below their state average by 19 percent and the rate for non-Hispanic white residents was below their state average by six percent. The rates for Hispanic residents was six percent above the state average for Hispanic people.

The following map and table show the asthma ED visit rate by municipality of residence in Cape May County from 2008–2012 (only municipalities with a population of 5,500 or greater are shown). Middle Township was above the state average, accounting for 28 percent of Cape May County’s asthma ED visits while only holding 19 percent of the population. The next highest rate was for the collective total of municipalities with populations under 5,500—these municipalities accounted for 35 percent of asthma ED visits while only constituting 27 percent of the population.

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



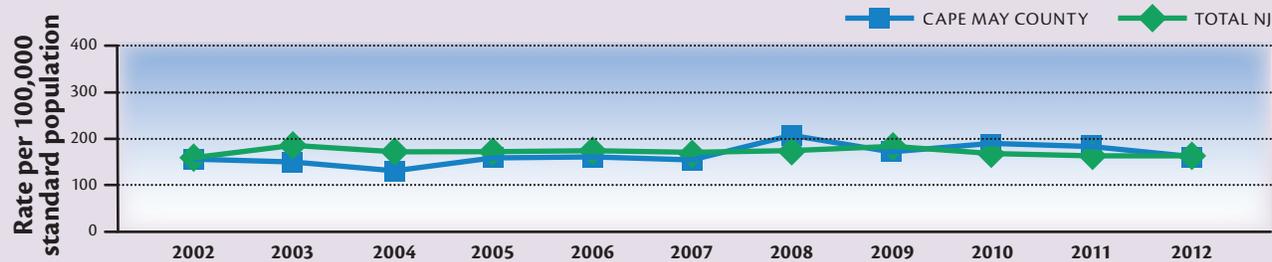
Municipality	Average population, 2008–2012	Asthma ED visits, 2008–2012	Percent of County ED visits	Percent of County Population	Asthma ED visit rate per 100,000 residents, 2008–2012	Age-adjusted* asthma ED visit rate per 100,000 residents, 2008–2012
Dennis township	6,170	43	2.2%	6.4%	139	138
Lower township	21,748	417	21.6%	22.5%	383	454
Middle township	17,902	546	28.3%	18.5%	610	672
Ocean City	12,873	161	8.3%	13.3%	250	422
Upper township	11,803	80	4.1%	12.2%	136	146
Municipalities below 5,500 population	26,047	682	35.4%	27.0%	524	n/a
Cape May County	96,542	1,929			400	492
State of NJ	8,774,778	261,822			597	622

*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

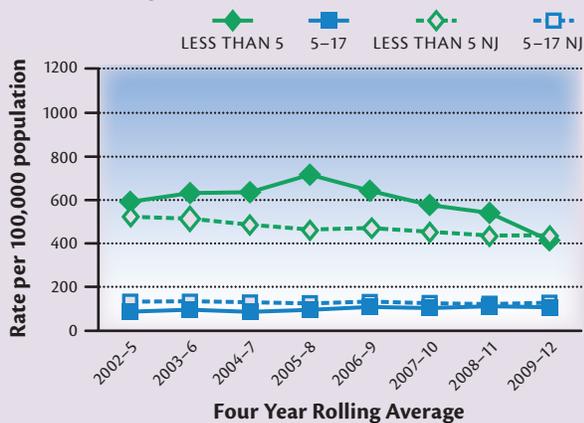
Population source: CDC: Vintage 2012 Bridged-Race Population Estimates; July 1, 2000–July 2009 Revised Bridged-Race Intercensal Population Estimates

Hospitalizations¹

As with ED visits, most asthma-related hospitalizations can be avoided through appropriate management. In 2012, residents of Cape May County had 167 total asthma hospitalizations, or 173 per 100,000 residents, compared with the state average of 168 asthma hospitalizations per 100,000 residents. Cape May County contains 1.1 percent of the state’s population and accounted for 1.1 percent of the state’s asthma hospitalizations in 2012. Figure 8 shows Cape

May 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). Cape May County’s rate was close to the state average, with three years above the state average and eight below—on average over the decade, it was four percent below the state average.

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

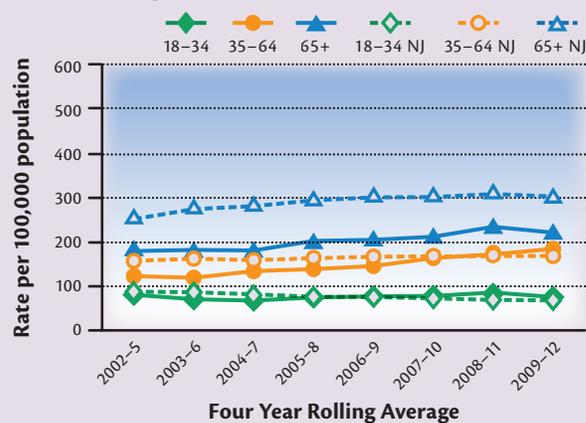


Data source: 2002–2012 New Jersey Hospital Discharge Files

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 Cape May 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). Only rates for adults ages 65 and over were consistently below their state average—all other age groups were both above and below their respective state averages over the period. Only in one case (rates for children under age five) were the Cape May County rates on

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

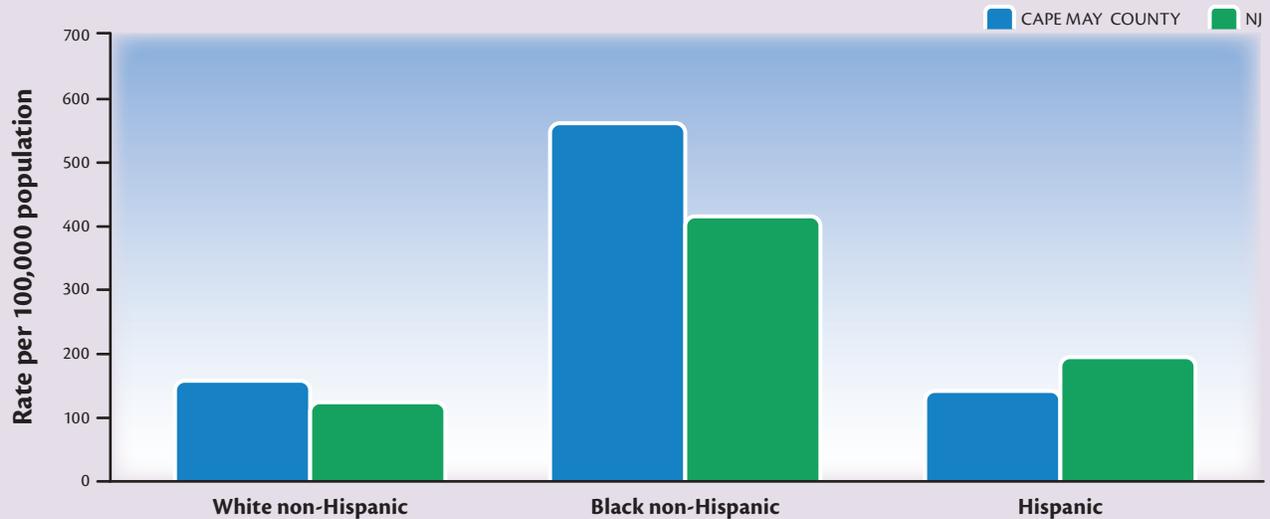


Data source: 2002–2012 New Jersey Hospital Discharge Files

Population source: CDC: Vintage 2012 Bridged-Race Population Estimates; July 1, 2000–July 2009 Revised Bridged-Race Intercensal Population Estimates

average higher than the state rate over the period. However, by the end of the period the asthma hospitalization rate for children under age five was below the state average. All groups other than children under age five showed either more growth or less of a decline than their respective state averages. The largest relative increase was in rates for adults ages 35–64, which increased by 52 percent, compared with a seven percent increase in the state average. Asthma hospitalization rates for children under age five declined by 29 percent over the period, compared with a decline of 16 percent in the state average.

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



Note: Not age-adjusted
 Data source: 2009-2012 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 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 Cape May County and the state of New Jersey from 2009–2012.² Non-Hispanic black residents of Cape May County had the highest asthma hospitalization rate—3.6 times the rate for non-Hispanic white residents and 3.9 times the rate for Hispanic residents. The asthma hospitalization rate for Hispanic residents was 0.92 times

(eight percent below) the rate for non-Hispanic white residents. When comparing Cape May County racial and ethnic groups to their state averages, the rate for non-Hispanic black residents was 37 percent above the state average for non-Hispanic black people, and the rate for non-Hispanic white residents was 29 percent above their state average. The rate for Hispanic residents was 25 percent below their state average.

Summary

Cape May 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 in the past decade were below the state average by 20 percent, on average. Rates of asthma-related hospitalizations were close to state average in the past decade—about four percent less, on average.

Asthma-related ED visit rates for all Cape May County age groups except adults 18-64 were below their respective state averages over the past decade. Rates for all age groups were below their state averages in 2011-2012.

Asthma hospitalization rates for all age groups other than adults ages 65 and over were both above and below their respective state averages over the past decade. Rates for

Cape May County adults ages 65 and over were consistently below their state average. Only in one case (rates for children under age five) were the Cape May County rates on average higher than the state rate over the period. However, by the end of the period the asthma hospitalization rate for children under age five was below the state average. The largest relative increase in the past decade was in rates for adults ages 35-64, which increased by 52 percent, compared with a seven percent increase in the state average.

Non-Hispanic black residents of Cape May County had the highest rates of both asthma ED visits (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 five times

the rate for non-Hispanic white residents and the asthma hospitalization rate was 3.6 times as high. The asthma ED visit rate for Hispanic residents was 2.8 times the rate for non-Hispanic white residents, but the asthma hospitalization rate for Hispanic residents was 0.92 times (eight percent below) the rate for non-Hispanic white residents.

An analysis of asthma-related ED visits by municipality from 2008-2012 showed that Middle Township was above the state average, accounting for 28 percent of Cape May County's asthma ED visits while only holding 19 percent of the population. The next highest rate was for the collective total of municipalities with populations under 5,500—these municipalities accounted for 35 percent of asthma ED visits while only constituting 27 percent of the population.

For more information:

New Jersey Asthma Awareness and Education Program: www.nj.gov/health/asthma

For asthma resources and tools:

Pediatric Adult Asthma Coalition of New Jersey (PACNJ): www.pacnj.org

Notes:

- ¹ 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).
- ² 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, 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.

Funding for this effort was provided by the CDC Cooperative Agreement entitled *Addressing Asthma from a Public Health Perspective* (5U59EH000491-05). The contents are solely the responsibility of the authors and do not necessarily represent the official view of the CDC.

