



Asthma Prevention and Control Program
Asthma Surveillance Fact Sheet
2006-2009 Hospitalization Rates

Introduction

This fact sheet provides asthma hospitalization rates by county in Florida. For the purpose of this analysis only cases with the principal diagnosis as asthma were considered (determined by primary diagnosis code 493). Additional statistical reports on asthma in Florida can be found at <http://www.doh.state.fl.us/environment/medicine/Asthma/>.

For the period 2006-2009, the hospitalization rate related to asthma for Florida residents was 148.4 per 100,000 persons. Nationally, the National Hospital Discharge Survey estimated rate for of asthma hospitalization for 2007 was 152 per 100,000.¹

Hospitalization Race/Ethnicity

Rates by county for this period varied greatly (range of 49.8 to 411.2 per 100,000 persons) and this variation is in large part reflective of fluctuations in smaller counties. Statewide, rates for Black non-Hispanics were more than double the rates for White non-Hispanic residents (261.9 versus 124.1 per 100,000 respectively) and this differential was also seen at the county level. Nationally, hospitalization rates for blacks are also nearly double the rate among whites.

The rate among residents of Hispanic ethnicity was 119.3 per 100,000 persons statewide, lower than the rate for White non-Hispanics. For those counties where a rate among Hispanics could be calculated, most counties reported lowest rates among residents of Hispanic ethnicity (as in Miami Dade) although a few larger counties (Highlands, Hillsborough, Polk, Orange and Seminole) reported higher rates among Hispanics than White-non Hispanics. See table 1 for specific rates by county.

Hospitalizations Sex/Age Group

Hospitalization rates also vary by sex with females experiencing a greater rate than males (184.5 versus 110.1 per 100,000) and this relationship is also seen in county level data. Nationally (2007), females also have a higher rate of hospitalization (179 versus 123 per 100,000).

Perhaps the greatest disparity exists within age groups; this also represents opportunities for specific program interventions. In Florida, highest rates for hospitalization are among children age 0-4 years old (364.6 per 100,000) and among adults age 65 and older (221.6 per 100,000). This pattern of highest rates among the youngest and oldest of residents is also seen within the counties. National data for 2007 show that hospitalization rates for adults age 65 and older are 254 per 100,000 and for children age 14 or less are 248 per 100,000. Although the age groups presented by national statistics are not directly comparable; highest rates among children is of concern in Florida and among national stakeholders. See table 2 for specific rates by county.

Conclusion

The highest rates of hospitalization from asthma appear amongst non-Hispanic blacks, women, children ages four and under, and individuals 65 years and older. Given the increased rates amongst these groups, future interventions should ensure these at risk groups are reached.

¹ National statistics from: Hall MJ, DeFrances CJ, Williams SN. 2007 National Hospital Discharge Survey. National health statistics reports. Hyattsville, MD: National Center for Health Statistics. 2010. <http://www.cdc.gov/nchs/data/nhsr/nhsr029.pdf>

Table 1: Asthma Hospitalization Rates per 100,000 by Race/Ethnicity, 2006-2009 ^{1,2}				
County	Race/Ethnicity			
	White non-Hispanic	Black non-Hispanic	Hispanic	Total ³
Statewide	124.1	261.9	119.3	148.4
Alachua	72.9	293.8	35.7	114.4
Baker	120.0	127.8	Suppressed	117.6
Bay	129.5	206.2	61.2	134.7
Bradford	50.2	75.6	Suppressed	55.2
Brevard	101.2	267.4	105.0	118.6
Broward	156.6	280.3	129.4	184.7
Calhoun	90.5	53.9	Suppressed	85.5
Charlotte	263.2	298.6	78.7	256.9
Citrus	168.4	158.5	46.3	162.4
Clay	82.8	120.8	21.2	82.2
Collier	81.9	81.3	73.4	84.3
Columbia	228.7	252.3	Suppressed	222.7
DeSoto	249.6	171.1	69.5	184.1
Dixie	111.0	202.1	Suppressed	121.0
Duval	113.0	269.2	72.8	158.7
Escambia	92.1	241.2	31.3	123.1
Flagler	70.8	109.2	85.1	75.1
Franklin	74.8	Suppressed	Suppressed	71.2
Gadsden	63.3	132.1	31.0	101.4
Gilchrist	94.7	Suppressed	Suppressed	96.0
Glades	72.3	148.3	67.4	78.0
Gulf	109.0	38.0	Suppressed	92.2
Hamilton	325.3	633.6	Suppressed	411.2
Hardee	145.6	231.1	78.3	125.9
Hendry	217.6	426.5	74.4	181.9
Hernando	178.5	224.8	163.6	188.1
Highlands	180.5	671.0	258.4	242.3
Hillsborough	114.7	262.2	157.9	153.6
Holmes	71.5	177.0	Suppressed	78.8
Indian River	47.4	106.4	23.1	49.9
Jackson	66.1	99.7	Suppressed	74.3
Jefferson	63.6	185.2	Suppressed	106.5
Lafayette	111.6	155.6	Suppressed	106.9
Lake	96.6	262.5	75.9	109.7
Lee	121.0	315.5	67.9	129.6
Leon	45.1	118.7	21.7	68.7
Levy	127.5	231.5	Suppressed	132.0
Liberty	78.2	106.4	Suppressed	77.2
Madison	92.9	140.8	Suppressed	110.9
Manatee	97.1	301.8	88.9	116.4
Marion	90.7	230.6	89.5	109.2
Martin	118.3	284.4	138.5	128.7
Miami-Dade	234.4	313.1	116.8	183.3
Monroe	99.9	428.4	89.9	119.5
Nassau	117.2	209.1	Suppressed	121.3
Okaloosa	93.2	121.3	31.9	93.8
Okeechobee	183.2	200.8	34.4	170.2
Orange	118.7	217.8	215.8	165.6
Osceola	124.7	187.3	141.6	172.7
Palm Beach	142.4	268.2	63.7	156.5
Pasco	149.5	204.7	84.8	148.8
Pinellas	123.4	322.4	100.2	143.2
Polk	194.1	345.8	204.5	220.3
Putnam	117.0	168.6	91.1	128.1
St. Johns	84.3	233.9	44.1	92.1
St. Lucie	100.1	294.6	36.3	131.2
Santa Rosa	131.6	172.0	32.5	127.1
Sarasota	79.4	229.1	79.8	87.7
Seminole	74.3	195.5	120.2	96.2
Sumter	98.3	126.4	43.3	97.7
Suwannee	184.9	242.3	69.0	185.2
Taylor	132.9	303.0	Suppressed	169.5
Union	111.2	245.9	Suppressed	145.6
Volusia	98.7	245.5	109.0	115.2
Wakulla	68.1	146.8	Suppressed	76.6
Walton	80.0	93.1	Suppressed	79.3
Washington	120.2	87.6	Suppressed	114.7

¹ Data source: Agency for Health Care Administration Inpatient Hospitalizations with primary diagnosis code '493'. Population: FloridaCHARTS.com

² Rates were suppressed for counts less than 5

³ Total includes "other" and "unknown" race and ethnicity categories

Table 2: Asthma Hospitalization Rates per 100,000 by Sex and Age Group, 2006-2009 ^{1,2}						
County	Sex		Age Group			
	Male	Female	0-4	5-17	18-64	65 and over
Statewide	110.8	184.5	364.6	112.8	115.6	221.6
Alachua	78.4	149.0	267.3	90.2	92.3	221.0
Baker	67.2	175.8	362.6	77.6	81.5	235.2
Bay	89.6	178.6	287.4	80.2	109.4	236.9
Bradford	39.5	75.8	251.7	41.7	32.6	94.6
Brevard	83.4	152.3	298.1	82.3	99.2	158.6
Broward	141.9	225.2	448.7	148.0	140.2	304.0
Calhoun	64.9	109.4	435.9	86.1	47.1	114.6
Charlotte	195.2	313.5	296.0	84.5	204.1	390.6
Citrus	96.9	222.9	312.5	84.9	137.0	215.4
Clay	52.9	110.9	150.8	29.0	68.6	215.0
Collier	69.2	99.3	321.9	80.0	50.7	108.6
Columbia	126.4	325.8	546.1	139.0	178.4	360.0
DeSoto	132.4	247.7	482.1	111.2	98.8	402.2
Dixie	50.0	202.8	225.9	Suppressed	115.8	201.9
Duval	111.8	203.0	240.3	94.3	146.6	280.7
Escambia	104.8	140.9	486.3	133.4	80.5	132.5
Flagler	55.5	93.2	193.1	80.5	59.0	87.1
Franklin	55.3	91.0	210.4	Suppressed	51.6	127.9
Gadsden	83.1	118.3	407.2	99.0	68.8	91.1
Gilchrist	44.8	151.3	181.4	52.7	72.7	201.9
Glades	52.2	110.2	328.6	Suppressed	47.3	144.1
Gulf	33.1	175.4	290.9	Suppressed	74.2	156.1
Hamilton	234.4	662.6	633.7	279.2	370.0	711.0
Hardee	97.3	160.1	459.5	59.4	97.2	135.1
Hendry	157.5	210.2	524.3	201.6	116.4	226.3
Hernando	124.6	246.5	475.1	147.1	161.0	214.1
Highlands	190.0	291.7	1126.3	251.4	188.3	180.7
Hillsborough	120.2	185.5	382.0	121.3	120.2	246.4
Holmes	45.4	116.6	Suppressed	54.2	84.8	93.3
Indian River	29.4	69.2	75.0	22.0	43.5	72.5
Jackson	51.0	102.7	138.7	40.0	75.6	77.4
Jefferson	104.8	108.4	251.5	145.7	94.9	67.6
Lafayette	56.2	194.9	312.7	Suppressed	90.1	141.4
Lake	83.9	134.2	289.0	67.6	95.6	127.2
Lee	101.6	156.6	459.9	132.6	99.5	119.1
Leon	61.1	75.7	351.0	96.4	34.5	116.9
Levy	81.5	179.7	246.0	115.8	115.7	160.8
Liberty	50.8	118.4	399.3	Suppressed	63.5	Suppressed
Madison	75.7	150.1	268.5	162.0	77.7	130.4
Manatee	94.6	137.1	406.9	107.5	81.8	134.8
Marion	93.5	124.0	365.7	87.2	85.3	121.4
Martin	107.6	148.9	303.1	78.0	80.0	221.5
Miami-Dade	147.1	217.1	434.5	136.5	127.0	371.4
Monroe	116.8	122.5	430.9	150.2	83.0	149.9
Nassau	80.6	161.0	133.3	63.1	96.8	279.6
Okaloosa	52.3	135.1	223.6	65.9	71.8	168.8
Okeechobee	88.0	263.6	360.7	82.8	177.2	165.8
Orange	115.6	215.0	271.0	122.9	141.7	332.1
Osceola	118.1	226.7	333.3	107.3	146.7	352.4
Palm Beach	124.8	186.2	360.1	108.2	114.9	248.9
Pasco	97.0	197.8	302.9	79.9	135.6	191.7
Pinellas	94.6	188.6	367.7	115.4	118.5	177.9
Polk	164.2	274.8	515.6	184.2	173.6	295.8
Putnam	74.6	179.9	279.4	71.7	117.2	162.2
St. Johns	51.4	131.2	191.6	59.4	70.3	183.2
St. Lucie	97.0	163.9	457.3	100.5	106.1	133.6
Santa Rosa	90.6	164.2	372.9	98.3	90.7	238.0
Sarasota	71.5	102.6	387.9	79.7	61.3	98.7
Seminole	68.7	122.9	178.5	62.6	82.7	185.6
Sumter	51.5	150.2	303.2	55.0	78.7	120.5
Suwannee	120.8	251.3	221.3	121.7	148.2	347.2
Taylor	129.7	216.2	924.2	166.5	121.2	83.8
Union	140.1	156.1	253.7	Suppressed	154.7	191.6
Volusia	86.5	142.6	283.8	88.5	96.1	148.0
Wakulla	50.1	106.1	285.4	56.0	56.2	119.7
Walton	56.7	102.6	260.1	41.5	62.8	112.5
Washington	65.4	170.9	223.1	94.6	106.3	133.9

¹ Data sources: Agency for Health Care Administration Inpatient Hospitalizations with primary diagnosis code '493'. Population estimates obtained from FloridaCHARTS.com

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