



Introduction

This fact sheet provides emergency department (ED) visit rates in Florida. For the purpose of this analysis, only cases with the principal diagnosis as asthma were considered (determined by primary diagnosis code 493). The primary data sources were the Agency for Health Care Administration and FloridaCHARTS.com. 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 rate for asthma ED visits was 417.7 per 100,000 persons statewide. The rate of ED visits was higher than the state's rate of hospitalizations (417.7 vs. 148.4 per 100,000 respectively). Nationally, rates for ED visits are higher than overall hospitalization rates.

ED Visits Race/Ethnicity

Rates amongst Black non-Hispanic residents (976.2 per 100,000) were much higher than among White non-Hispanics (271.4 per 100,000), which is similar to the pattern seen in hospitalizations. Rates for ED visits for Hispanics, however, were higher than among White non-Hispanics at 380.6 per 100,000. This differs from the patterns seen in hospitalizations.

Of interest is that the rate among Hispanic residents in some of the larger counties was similar to the rate among White non-Hispanics. Overall, increased ED visits rates may reflect poorly controlled asthma and less access to primary preventive health care and management including lower rates of health care coverage. See Table 1 for specific rates by county.

ED Visits Sex/Age Group

Rates for ED visits among females exceeded rates among males (440.1 vs 394.4 per 100,000 respectively). This is similar to the pattern seen for hospitalization (183.3 versus 110.1 per 100,000). Additional disparity in rates between genders can be seen in some counties.

The highest rates of ED visits were among children age 0-4 (1,383.7 per 100,000) with the next highest rates seen among children age 5-17 (687.6 per 100,000). The national rate for children under 5 is 1,210 per 100,000.¹ 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. The lowest ED visit rates are among adults age 65 and older (98.2 per 100,000). This is in contrast to hospitalization where adults age 65 and older had one of the highest rates. Nationally there are 250 ED visits per 100,000 individuals 65 years of age and older. See Table 2 for specific rates by county.

Conclusion

The highest rates of emergency department visits from asthma appear amongst non-Hispanic blacks, women, and children aged four and under. Given the increased rates amongst these groups, it may be beneficial for future interventions to target these groups.

¹National statistics from: Niska R, Bhuiya F, Xu J. National Hospital Ambulatory Medical Care Survey: 2007 Emergency Department Summary. Hyattsville, MD: National Center for Health Statistics. 2010. <http://www.cdc.gov/nchs/data/nhsr/nhsr026.pdf>

**Table 1: Asthma Emergency Department Visits Rates per 100,000
by Race/Ethnicity, 2006-2009^{1,2}**

| County | Race/Ethnicity | | | |
|--------------|--------------------|--------------------|------------|--------------------|
| | White non-Hispanic | Black non-Hispanic | Hispanic | Total ³ |
| Statewide | 271.4 | 976.2 | 380.6 | 417.7 |
| Alachua | 168.3 | 994.6 | 174.8 | 341.2 |
| Baker | 495.1 | 1185.4 | Suppressed | 577.4 |
| Bay | 409.4 | 1015.2 | 493.1 | 481.0 |
| Bradford | 367.7 | 776.3 | 219.1 | 452.6 |
| Brevard | 247.6 | 907.6 | 411.8 | 327.7 |
| Broward | 278.7 | 903.2 | 384.8 | 471.8 |
| Calhoun | 352.8 | 420.3 | 642.2 | 373.3 |
| Charlotte | 246.6 | 676.6 | 203.3 | 273.9 |
| Citrus | 253.5 | 494.6 | 324.0 | 262.1 |
| Clay | 272.8 | 789.5 | 184.7 | 324.1 |
| Collier | 166.9 | 274.9 | 352.6 | 231.8 |
| Columbia | 428.9 | 1164.3 | 178.1 | 547.5 |
| DeSoto | 466.7 | 988.7 | 245.4 | 458.7 |
| Dixie | 148.5 | 353.7 | Suppressed | 172.9 |
| Duval | 300.8 | 1230.0 | 329.9 | 599.5 |
| Escambia | 331.6 | 1549.1 | 283.4 | 602.6 |
| Flagler | 302.2 | 1017.4 | 499.6 | 395.4 |
| Franklin | 490.9 | 861.8 | Suppressed | 537.4 |
| Gadsden | 165.9 | 580.8 | 243.1 | 417.5 |
| Gilchrist | 129.6 | 244.6 | Suppressed | 138.1 |
| Glades | 137.7 | 1313.6 | 483.3 | 325.5 |
| Gulf | 168.5 | 136.6 | Suppressed | 156.1 |
| Hamilton | 367.6 | 740.7 | 163.2 | 489.4 |
| Hardee | 479.0 | 1185.7 | 424.2 | 527.0 |
| Hendry | 560.2 | 1614.8 | 337.5 | 607.5 |
| Hernando | 288.3 | 824.3 | 511.8 | 348.5 |
| Highlands | 290.4 | 1309.5 | 432.6 | 412.1 |
| Hillsborough | 250.7 | 852.5 | 527.1 | 431.9 |
| Holmes | 224.6 | 531.1 | 277.9 | 250.3 |
| Indian River | 225.6 | 1067.7 | 283.9 | 311.0 |
| Jackson | 213.4 | 696.4 | 149.0 | 348.7 |
| Jefferson | 109.9 | 643.2 | Suppressed | 293.7 |
| Lafayette | 223.3 | 795.4 | Suppressed | 314.8 |
| Lake | 208.1 | 957.9 | 495.3 | 307.2 |
| Lee | 265.6 | 956.0 | 270.0 | 326.4 |
| Leon | 142.5 | 650.6 | 124.3 | 310.8 |
| Levy | 204.1 | 724.1 | 203.9 | 265.2 |
| Liberty | 464.6 | 577.4 | 643.9 | 491.2 |
| Madison | 365.0 | 1184.1 | 337.3 | 685.3 |
| Manatee | 216.6 | 946.2 | 252.8 | 298.1 |
| Marion | 303.0 | 1214.9 | 528.1 | 446.5 |
| Martin | 173.0 | 875.7 | 417.3 | 237.4 |
| Miami-Dade | 362.8 | 832.4 | 290.7 | 426.3 |
| Monroe | 250.2 | 1202.2 | 325.1 | 315.8 |
| Nassau | 300.2 | 926.0 | 148.2 | 343.2 |
| Okaloosa | 331.0 | 834.6 | 79.8 | 382.6 |
| Okeechobee | 515.2 | 818.0 | 172.2 | 542.1 |
| Orange | 212.2 | 795.2 | 656.4 | 454.4 |
| Osceola | 285.5 | 821.0 | 584.5 | 565.3 |
| Palm Beach | 201.1 | 970.2 | 209.8 | 344.7 |
| Pasco | 317.0 | 899.0 | 388.7 | 354.5 |
| Pinellas | 253.8 | 1444.0 | 405.3 | 400.3 |
| Polk | 461.1 | 1472.3 | 893.3 | 685.9 |
| Putnam | 521.2 | 1297.8 | 375.6 | 687.7 |
| St. Johns | 227.7 | 1102.5 | 203.8 | 281.5 |
| St. Lucie | 193.4 | 930.0 | 186.7 | 345.3 |
| Santa Rosa | 327.1 | 659.2 | 77.1 | 332.8 |
| Sarasota | 202.5 | 1412.8 | 389.8 | 274.1 |
| Seminole | 151.0 | 892.1 | 478.9 | 297.6 |
| Sumter | 138.0 | 437.2 | 141.4 | 173.8 |
| Suwannee | 417.2 | 1297.9 | 414.1 | 524.2 |
| Taylor | 387.1 | 1070.9 | Suppressed | 529.4 |
| Union | 460.5 | 908.3 | Suppressed | 542.8 |
| Volusia | 454.2 | 1810.3 | 864.4 | 638.1 |
| Wakulla | 188.8 | 433.2 | Suppressed | 215.9 |
| Walton | 246.0 | 518.5 | 113.9 | 275.0 |
| Washington | 413.1 | 686.5 | 320.5 | 444.6 |

¹ Data source: Agency for Health Care Administration ED visits 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 Emergency Department Visits 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 | 394.4 | 440.1 | 1383.7 | 687.6 | 340.7 | 98.2 |
| Alachua | 302.0 | 378.7 | 1013.1 | 550.8 | 284.1 | 91.8 |
| Baker | 439.4 | 736.5 | 1665.3 | 735.0 | 456.5 | 280.4 |
| Bay | 392.3 | 567.4 | 982.9 | 601.2 | 486.9 | 119.4 |
| Bradford | 378.0 | 550.7 | 1628.9 | 763.4 | 352.4 | 107.3 |
| Brevard | 286.5 | 367.1 | 781.1 | 522.6 | 330.7 | 71.2 |
| Broward | 465.1 | 478.2 | 1646.2 | 779.9 | 350.8 | 108.9 |
| Calhoun | 282.2 | 479.1 | 1401.0 | 559.4 | 285.3 | 160.4 |
| Charlotte | 236.4 | 308.3 | 819.3 | 439.7 | 334.7 | 69.7 |
| Citrus | 211.9 | 308.5 | 674.6 | 446.3 | 302.6 | 83.4 |
| Clay | 288.0 | 359.2 | 927.2 | 450.8 | 258.8 | 137.4 |
| Collier | 231.5 | 232.1 | 972.3 | 421.4 | 180.8 | 55.9 |
| Columbia | 401.1 | 704.3 | 994.0 | 614.1 | 580.4 | 166.6 |
| DeSoto | 411.7 | 516.5 | 1325.7 | 812.1 | 366.7 | 160.9 |
| Dixie | 144.0 | 206.2 | 762.3 | 113.3 | 176.4 | 40.4 |
| Duval | 587.4 | 611.0 | 1532.9 | 865.8 | 495.5 | 158.9 |
| Escambia | 584.0 | 620.7 | 2049.4 | 926.9 | 468.2 | 173.6 |
| Flagler | 376.0 | 413.3 | 1658.3 | 720.8 | 371.5 | 94.9 |
| Franklin | 438.5 | 659.5 | 1936.0 | 1149.2 | 412.7 | 181.3 |
| Gadsden | 376.9 | 455.0 | 1504.7 | 582.4 | 306.2 | 132.9 |
| Gilchrist | 97.9 | 181.5 | 518.3 | 219.7 | 112.6 | Suppressed |
| Glades | 361.6 | 280.5 | 1408.5 | 550.3 | 211.0 | 240.1 |
| Gulf | 99.2 | 236.3 | 618.2 | 251.5 | 130.4 | 64.3 |
| Hamilton | 260.5 | 814.9 | 754.4 | 644.3 | 479.7 | 213.3 |
| Hardee | 440.5 | 630.5 | 1293.1 | 629.0 | 444.3 | 276.9 |
| Hendry | 539.2 | 686.4 | 1593.2 | 904.1 | 423.8 | 238.3 |
| Hernando | 292.6 | 399.8 | 812.9 | 637.6 | 378.1 | 83.3 |
| Highlands | 357.7 | 463.5 | 1235.0 | 638.5 | 453.3 | 121.0 |
| Hillsborough | 403.1 | 459.5 | 1213.4 | 609.2 | 357.3 | 111.0 |
| Holmes | 176.9 | 333.5 | 480.9 | 402.9 | 246.0 | Suppressed |
| Indian River | 258.0 | 360.8 | 926.1 | 575.8 | 302.0 | 88.1 |
| Jackson | 328.6 | 373.2 | 996.6 | 610.7 | 298.8 | 80.5 |
| Jefferson | 209.6 | 386.6 | 754.5 | 376.3 | 279.5 | 112.7 |
| Lafayette | 257.6 | 414.1 | 1000.6 | 487.3 | 240.2 | 282.8 |
| Lake | 265.8 | 346.5 | 906.8 | 552.4 | 297.9 | 63.6 |
| Lee | 296.6 | 355.0 | 1278.5 | 592.0 | 271.4 | 61.6 |
| Leon | 278.8 | 340.1 | 939.7 | 469.3 | 250.3 | 130.4 |
| Levy | 230.6 | 297.8 | 973.3 | 411.0 | 225.0 | 48.2 |
| Liberty | 370.6 | 678.7 | 2452.9 | 677.0 | 353.7 | Suppressed |
| Madison | 638.4 | 737.5 | 3015.3 | 1164.7 | 452.3 | 212.0 |
| Manatee | 281.1 | 314.3 | 992.0 | 450.6 | 278.2 | 70.9 |
| Marion | 442.9 | 449.9 | 1318.4 | 806.0 | 423.2 | 85.6 |
| Martin | 194.8 | 278.1 | 639.5 | 360.0 | 247.1 | 99.5 |
| Miami-Dade | 463.8 | 391.3 | 1889.4 | 818.9 | 227.5 | 103.5 |
| Monroe | 290.1 | 344.2 | 942.5 | 500.0 | 288.9 | 108.1 |
| Nassau | 317.3 | 368.4 | 1017.8 | 567.5 | 284.2 | 82.5 |
| Okaloosa | 316.1 | 448.9 | 760.2 | 458.7 | 360.8 | 205.8 |
| Okeechobee | 404.3 | 698.8 | 1471.4 | 531.1 | 563.3 | 121.6 |
| Orange | 425.4 | 483.0 | 1122.2 | 711.0 | 351.8 | 135.7 |
| Osceola | 498.4 | 631.6 | 1100.5 | 782.1 | 502.2 | 177.5 |
| Palm Beach | 332.2 | 356.5 | 1334.3 | 568.7 | 283.1 | 86.7 |
| Pasco | 285.0 | 420.2 | 733.1 | 507.8 | 395.6 | 75.9 |
| Pinellas | 358.2 | 439.7 | 1326.2 | 727.9 | 365.6 | 68.5 |
| Polk | 636.0 | 734.4 | 2541.9 | 1110.0 | 530.6 | 90.4 |
| Putnam | 564.6 | 807.3 | 1380.8 | 791.1 | 718.1 | 279.0 |
| St. Johns | 244.6 | 316.9 | 847.7 | 443.2 | 241.7 | 97.9 |
| St. Lucie | 318.1 | 371.2 | 921.1 | 528.4 | 340.5 | 68.3 |
| Santa Rosa | 298.2 | 368.0 | 929.2 | 503.7 | 271.7 | 105.6 |
| Sarasota | 252.9 | 293.4 | 1059.9 | 458.4 | 293.2 | 73.2 |
| Seminole | 274.1 | 320.5 | 684.8 | 483.9 | 249.7 | 77.9 |
| Sumter | 143.7 | 208.1 | 768.7 | 337.3 | 172.2 | 42.2 |
| Suwannee | 444.0 | 606.5 | 1022.1 | 730.2 | 523.2 | 200.3 |
| Taylor | 423.6 | 653.5 | 1339.1 | 811.7 | 457.5 | 213.4 |
| Union | 316.3 | 973.5 | 2315.3 | 920.4 | 388.9 | 114.9 |
| Volusia | 586.6 | 687.1 | 2171.9 | 1065.5 | 582.2 | 147.5 |
| Wakulla | 178.5 | 257.4 | 736.0 | 275.1 | 188.7 | 53.2 |
| Walton | 239.8 | 311.2 | 747.8 | 474.8 | 240.7 | 90.9 |
| Washington | 346.3 | 556.5 | 1034.3 | 599.3 | 412.0 | 229.6 |

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

² Rates were suppressed for counts less than 5