

# Florida Morbidity Statistics

## 2010



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## Table of Contents

|   |             |
|---|-------------|
| <b>Acknowledgments</b> .....  | <b>vii</b>  |
| <b>Introduction</b> .....   | <b>xiii</b> |
| Purpose.....  | xiii        |
| Report Format.....  | xiii        |
| Data Sources.....   | xiii        |
| Interpreting the Data.....  | xiv         |
| Florida County Boundries.....   | xvi         |
| Population Estimates.....   | xvii        |
| Table A: Florida Populations by Year and County, 2001-2010.....   | xvii        |
| Table B: Florida Populations by Age Group, 2010.....  | xix         |
| Table C: Florida Populations by Gender, 2010.....   | xix         |
| Table D: Florida Populations by Race (White, Black, and other Non-white), 2010.....   | xix         |
| List of Reportable Diseases/Conditions in Florida, 2010.....  | xx          |
| Selected Florida Department of Health Contacts.....   | xxi         |
| Travel-related Illness in Florida, Snapshot of Recent Trends.....   | xxii        |
| <b>Section 1: Tables of Select Notifiable Diseases</b> .....  | <b>24</b>   |
| Table 1.1: Reported Confirmed and Probable Cases and Incidence Rate per 100,000<br>Population for Selected Notifiable Diseases, Florida, 2001-2010.....                   | 26          |
| Table 1.2: Reported Confirmed and Probable Cases of Notifiable Diseases of Infrequent<br>Occurrence, Florida, 2001-2010.....  | 27          |
| Table 1.3: Reported Confirmed and Probable Cases and Incidence Rate per 100,000<br>Population for Selected Notifiable Diseases by County of Residence, Florida, 2010..... | 29          |
| Table 1.4: Reported Confirmed and Probable Cases and Incidence Rate per 100,000<br>Population for Selected Notifiable Diseases by Age Group, Florida, 2010.....           | 39          |
| Table 1.5: Top 10 Reported Confirmed and Probable Cases of Disease by Age Group,<br>Florida, 2010.....  | 41          |
| Table 1.6: Reported Confirmed and Probable Cases and Incidence Rate per 100,000<br>Population for Selected Notifiable Diseases by Gender, Florida, 2010.....              | 42          |
| Table 1.7: Reported Confirmed and Probable Cases of Selected Notifiable Diseases by<br>Month of Onset, Florida, 2010.....   | 43          |
| <b>Section 2: Selected Notifiable Diseases and Conditions</b> .....   | <b>44</b>   |
| Acquired Immune Deficiency Syndrome and Human Immunodeficiency Virus.....   | 46          |
| Arsenic Poisoning.....  | 57          |
| Brucellosis.....  | 60          |
| Campylobacteriosis.....   | 64          |
| Carbon Monoxide Poisoning.....  | 67          |

|   |     |
|---|-----|
| Chlamydia.....  | 71  |
| Cholera.....  | 74  |
| Ciguatera Fish Poisoning.....   | 75  |
| Cryptosporidiosis.....  | 77  |
| Cyclosporiasis.....   | 81  |
| DengueFever.....  | 83  |
| Eastern Equine Encephalitis.....  | 86  |
| Ehrlichiosis/Anaplasmosis.....  | 88  |
| <i>Escherichia coli</i> , Shiga Toxin-Producing.....                      | 91  |
| Giardiasis.....   | 94  |
| Gonorrhea.....  | 97  |
| <i>Haemophilus influenzae</i> , Invasive Disease.....                     | 100 |
| Hepatitis A.....  | 103 |
| Hepatitis B, Acute.....   | 106 |
| Hepatitis B (+HBsAg in Pregnant Women).....                               | 110 |
| Hepatitis C, Acute.....   | 112 |
| Lead Poisoning, 2009.....   | 115 |
| Legionellosis.....  | 120 |
| Leptospirosis.....  | 123 |
| Listeriosis.....  | 124 |
| Lyme Disease.....   | 127 |
| Malaria.....  | 131 |
| Measles.....  | 135 |
| MeningococcalDisease.....   | 136 |
| Mercury Poisoning.....  | 139 |
| Mumps.....  | 143 |
| Pertussis.....  | 145 |
| Pesticide-Related Illness and Injury, 2009.....                           | 148 |
| QFever.....   | 153 |
| Rabies, Animal.....   | 154 |
| Rabies, Possible Exposure.....  | 157 |
| Rocky Mountain Spotted Fever.....   | 160 |
| Salmonellosis.....  | 163 |
| Shigellosis.....  | 166 |
| <i>Streptococcus pneumoniae</i> , Invasive Disease, Drug-Resistant.....   | 169 |
| <i>Streptococcus pneumoniae</i> , Invasive Disease, Drug-Susceptible..... | 172 |
| Syphilis.....   | 176 |
| Tuberculosis.....   | 179 |
| Typhoid Fever.....  | 187 |
| Varicella.....  | 189 |

|  |            |
|--|------------|
| Vibriosis (excluding <i>Vibrio cholerae</i> , type O1, see Cholera)..... | 192        |
| West Nile Virus.....   | 196        |
| <b>Section 3: Foodborne Disease Outbreaks.....</b>                       | <b>200</b> |
| <b>Section 4: Antimicrobial Resistance Surveillance.....</b>             | <b>208</b> |
| <b>Section 5: Notable Outbreaks and Case Investigations.....</b>         | <b>222</b> |
| <b>Section 6: Recently Published Papers and Reports.....</b>             | <b>252</b> |
| <b>Section 7: Cancer Data, 2008.....</b>                                 | <b>258</b> |
| <b>Section 8: Public Health Laboratory Status Report.....</b>            | <b>272</b> |



## Acknowledgements

The Florida Morbidity Statistics Report is the official record of the occurrence of notifiable disease in Florida and this edition marks the fifty-fifth publication since 1945. The mission statement of the Florida Department of Health is “to protect and promote the health of all residents and visitors in the state through organized state and community efforts, including cooperative agreements with counties.” This report directly supports the mission of the department by identifying patterns and trends in the incidence of disease that are used as the scientific basis for development of disease control and prevention strategies and policies.

Protection of the public’s health from existing, emerging, and re-emerging diseases requires diligence in all aspects of public health. Our most important partners in identifying and characterizing emerging trends in disease are the physicians, nurses, laboratorians, hospital infection-control practitioners and other health care professionals who participate in reportable disease surveillance. Without their participation, our ability to recognize and intervene in emerging public health issues would be much more limited.

Travel-related illness in Florida was a concern in 2010 and this report contains a special section on recent trends in travel-related illness. In 2010, an earthquake and subsequent cholera epidemic in Haiti presented significant potential for the importation of disease into the state. On January 12, 2010, a 7.0 magnitude earthquake struck in the area surrounding Port-au-Prince, Haiti. The Florida Department of Health and our disease control partners were able to quickly respond to this humanitarian crisis. Florida, as the U.S. state located closest to Haiti, became an initial focal point for assisting the federal repatriation and humanitarian parolee efforts. As the crisis developed, the Department worked to identify the introduction of cholera and prevent local transmission within Florida after an outbreak was identified in Haiti. The Department’s response required the collaboration of county health departments, many bureaus, divisions and public health partners. This collaboration was essential to ensure an efficient and effective response to this state, national, and global concern.

The Division of Disease Control and the Bureau of Epidemiology would like to thank the other program areas within the Florida Department of Health that contributed information to this report including the Bureau of Immunization, Bureau of HIV/AIDS, Bureau of Sexually Transmitted Diseases Prevention and Control, Bureau of Tuberculosis Control and Refugee Health, Bureau of Environmental Public Health Medicine, and the Bureau of Laboratories. Finally, many thanks are extended to the County Health Department staff and other public health professionals who are involved in reportable disease surveillance, either through disease control activities, case investigations, data collection, or other essential functions.

We hope readers will find this document useful when setting priorities for action at the individual and community level to prevent and control disease in Florida



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# Introduction

## Purpose

The Florida morbidity report is compiled to:

1. Summarize annual morbidity from notifiable communicable and environmental diseases, and cancer in Florida;
2. Describe patterns of disease as an aid in directing future disease prevention and control efforts; and,
3. Provide a resource to healthcare and public health authorities at county, state, and national levels.

## Report Format

This report is divided into 8 sections:

Section 1: Summary of Selected Notifiable Diseases and Conditions

Section 2: Selected Notifiable Diseases and Conditions

Section 3: Summary of Foodborne Disease Outbreaks

Section 4: Summary of Antimicrobial Resistance Surveillance

Section 5: Summary of Notable Outbreaks and Case Investigations

Section 6: Recently Published Papers and Reports

Section 7: Summary of Cancer Data, 2008

Section 8: Public Health Laboratory Status Report

## Data Sources

Data presented in this report are based on reportable disease information received by county and state health department staff from physicians, hospitals, and laboratories throughout the state. Data on occurrence of reportable diseases in Florida were obtained through passive and sometimes active surveillance. Reporting suspect and confirmed notifiable diseases or conditions in the State of Florida is mandated under Section 381.0031, Florida Statutes (F.S.), and Chapter 64D-3, Florida Administrative Code (F.A.C.). People in charge of laboratories, practitioners, hospitals, medical facilities, or other locations providing health services (can include schools, nursing homes, and state institutions) are required to report diseases or conditions and the associated laboratory test results listed in the Table of Notifiable Diseases or Conditions, Chapter 64D-3, F.A.C. Reporting test results by a laboratory does not nullify the practitioner's obligation to also report the disease or condition. These data are the basis for providing useful information on reportable diseases and conditions in Florida to healthcare workers and policymakers, and would not be possible without the cooperation of the extensive network involving both private and public sector participants.

1. Passive surveillance relies on physicians, laboratories, and other healthcare providers to report diseases to the Florida Department of Health (FDOH) using a confidential morbidity report form, electronically, by telephone, or by facsimile.
2. Active surveillance entails FDOH staff regularly contacting hospitals, laboratories, and physicians in an effort to identify all cases of a given disease.
3. Increasingly, information about cases of reportable diseases is passed from providers, especially laboratories, to the FDOH as electronic records, which occurs automatically.

## References

Specific references are noted appropriately throughout this report. The following reference was used for the majority of notifiable diseases and conditions contained in Section 2.

David L. Heymann (ed.), *Control of Communicable Diseases Manual*, 19th ed., American Public Health Association Press, Washington, District of Columbia, 2008.

## Interpreting the Data

This report should be interpreted in light of the following limitations:

### 1. Under-reporting

Evaluations of infectious disease reporting systems have, in general, indicated that the completeness of reporting varies by disease. The less common, more severe reportable diseases such as bacterial meningitis, diphtheria, poliomyelitis, botulism, anthrax, tuberculosis, and congenital syphilis are more completely reported than the more common but (individually) less severe diseases such as hepatitis A or campylobacteriosis. Variation in reported disease incidence at the local level probably reflects, to varying degrees, both differences in the true incidence of disease and differences in the vigor with which surveillance is performed.

### 2. Reliability of Rates

All incidence rates in this report are expressed as the number of reported cases of a disease or condition per 100,000 population unless otherwise specified. Animal rabies is only reported as the number of cases or as the rate based on human population, because no reliable denominators exist for animal populations. Rates for diseases with only a few cases reported per year can be unstable and should be interpreted with caution. The observation of zero events is especially difficult to interpret. All rates in the report based on fewer than 19 events should be considered unreliable. This translates into a relative standard error of the rate of 23% or more, which is the cut-off for rate reliability used by the National Center for Health Statistics.

### 3. Reporting Period

The data in this report are aggregated by the date the case was reported to the Bureau of Epidemiology for each of the years presented, based on standard weeks as outlined by the Centers for Disease Control and Prevention. Week 1 of each year through week 52 of each year comprise the reporting year. Frequency counts included only cases reported during this time. In some cases, diseases reported in 2010 may have onset or diagnosis dates in 2009.

### 4. Case Definition

Cases are classified as confirmed, probable, or suspected at the local level, using a published set of surveillance case definitions (Surveillance Case Definitions for Select Reportable Diseases in Florida, available at [http://www.doh.state.fl.us/disease\\_ctrl/epi/surv/CaseDefinitions.html](http://www.doh.state.fl.us/disease_ctrl/epi/surv/CaseDefinitions.html)). For cases of selected diseases, these classifications are reviewed at the state level. In this report confirmed and probable cases have been included for all diseases, but no suspected cases have been included.

### 5. Place of Acquisition of Disease or Condition

The distribution of cases among Florida counties is determined by the patient's reported county of residence. Cases are allocated to their county of residence regardless of where they became ill or are/were hospitalized, diagnosed, or exposed. Cases in people whose official residence is outside the state of Florida, but who became ill or are/were hospitalized or diagnosed in Florida, are not included. These cases are referred through an interstate reciprocal notification system to the state where the patient resides.

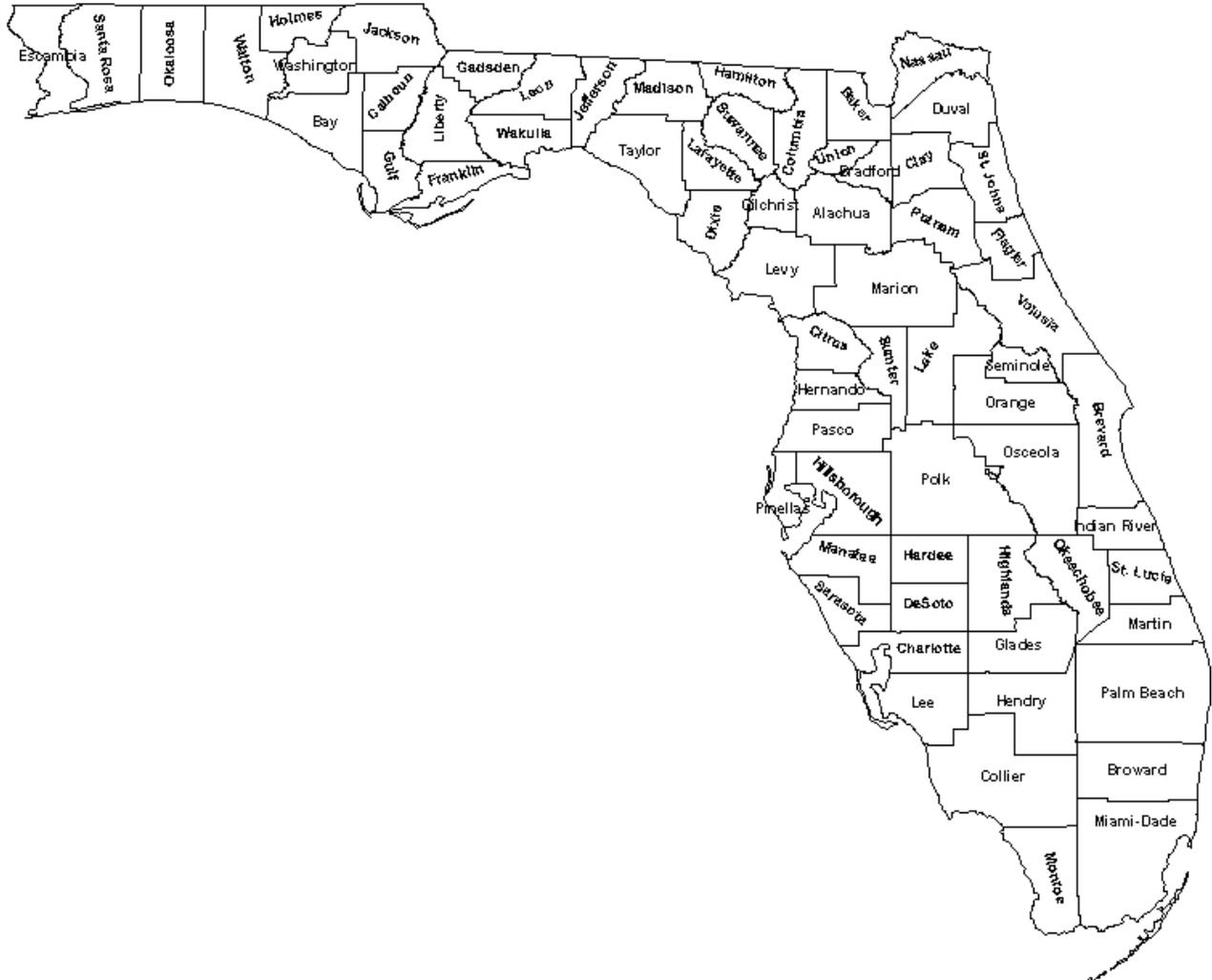
### 6. Population Estimates

All population estimates are from the Community Health Assessment Resource Tool Set (CHARTS). The CHARTS system receives its estimates from the Florida Legislature's Office of Economic and Demographic Research (EDR). Estimates are updated once per year in the CHARTS system. Note that previous editions of this report may show somewhat different populations for a given year than the ones shown here, as these estimates are revised periodically.

## **7. Incomplete Case Information**

Certain analyses may not include all reportable cases of a specific disease due to incomplete case information. For graphs denoting month of onset, it is important to note that only those cases of disease for which an onset date could be determined are included.

# Florida County Boundaries



**Table A. Florida Population by Year and County, 2000-2010. (Source – Florida CHARTS; accessed February 2011)**

| County       | 2000       | 2001       | 2002       | 2003       | 2004       | 2005       | 2006       | 2007       | 2008       | 2009       | 2010       |
|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| State Total  | 16,074,896 | 16,412,296 | 16,772,201 | 17,164,199 | 17,613,368 | 18,018,497 | 18,440,700 | 18,731,287 | 18,896,559 | 18,818,998 | 18,788,795 |
| Alachua      | 219,239    | 224,397    | 229,524    | 232,110    | 237,374    | 241,858    | 244,648    | 248,183    | 249,788    | 254,690    | 257,762    |
| Baker        | 22,388     | 22,641     | 23,105     | 23,472     | 24,069     | 23,980     | 25,216     | 25,692     | 25,905     | 26,049     | 25,936     |
| Bay          | 148,692    | 150,748    | 152,818    | 155,414    | 159,108    | 162,499    | 166,160    | 167,881    | 168,817    | 169,955    | 170,367    |
| Bradford     | 26,110     | 26,136     | 26,649     | 27,084     | 27,865     | 28,195     | 28,685     | 29,131     | 29,304     | 29,108     | 29,365     |
| Brevard      | 478,541    | 487,131    | 497,429    | 510,622    | 524,046    | 534,596    | 545,460    | 553,481    | 557,741    | 555,944    | 554,908    |
| Broward      | 1,631,445  | 1,654,923  | 1,673,972  | 1,706,363  | 1,730,580  | 1,746,603  | 1,755,392  | 1,767,538  | 1,775,101  | 1,748,279  | 1,742,843  |
| Calhoun      | 13,038     | 13,101     | 13,286     | 13,491     | 13,636     | 14,011     | 14,192     | 14,545     | 14,688     | 14,309     | 14,546     |
| Charlotte    | 142,357    | 145,481    | 149,486    | 152,865    | 158,006    | 153,788    | 161,731    | 165,061    | 166,473    | 166,298    | 166,023    |
| Citrus       | 118,689    | 121,078    | 123,704    | 126,475    | 129,822    | 133,472    | 137,690    | 140,652    | 142,143    | 143,857    | 142,905    |
| Clay         | 141,331    | 144,161    | 151,746    | 157,325    | 164,868    | 171,118    | 178,922    | 186,014    | 189,667    | 185,678    | 185,700    |
| Collier      | 254,571    | 267,632    | 281,148    | 295,848    | 309,369    | 320,859    | 327,945    | 335,235    | 340,589    | 332,204    | 333,853    |
| Columbia     | 56,683     | 57,354     | 58,537     | 59,218     | 60,821     | 61,744     | 64,052     | 65,658     | 66,429     | 67,161     | 67,273     |
| Dade         | 2,262,902  | 2,292,316  | 2,320,465  | 2,354,404  | 2,388,138  | 2,432,276  | 2,442,170  | 2,466,645  | 2,478,585  | 2,477,019  | 2,477,658  |
| Desoto       | 32,404     | 32,741     | 32,959     | 33,912     | 34,220     | 32,391     | 33,353     | 34,086     | 34,294     | 34,893     | 34,526     |
| Dixie        | 13,883     | 14,154     | 14,530     | 14,768     | 15,054     | 15,482     | 15,715     | 15,826     | 15,927     | 16,080     | 16,205     |
| Duval        | 782,691    | 797,566    | 813,817    | 829,937    | 843,772    | 865,965    | 883,875    | 900,608    | 908,378    | 908,562    | 899,820    |
| Escambia     | 294,911    | 297,321    | 300,421    | 304,165    | 308,068    | 303,240    | 310,617    | 311,701    | 311,924    | 314,698    | 312,409    |
| Flagler      | 50,620     | 53,881     | 58,004     | 62,511     | 71,004     | 80,559     | 90,663     | 94,199     | 96,912     | 95,214     | 96,099     |
| Franklin     | 9,871      | 9,974      | 10,250     | 10,530     | 10,682     | 10,909     | 12,082     | 12,257     | 12,286     | 12,427     | 12,361     |
| Gadsden      | 45,070     | 45,419     | 46,073     | 46,600     | 46,965     | 47,883     | 48,380     | 49,630     | 50,152     | 51,430     | 49,810     |
| Gilchrist    | 14,533     | 14,759     | 15,140     | 15,637     | 16,016     | 16,303     | 16,812     | 17,171     | 17,375     | 17,502     | 17,618     |
| Gleades      | 10,595     | 10,624     | 10,675     | 10,759     | 10,763     | 10,743     | 10,849     | 11,113     | 11,301     | 11,520     | 11,338     |
| Gulf         | 14,785     | 15,101     | 15,290     | 15,691     | 16,235     | 16,543     | 16,565     | 16,875     | 17,001     | 16,885     | 16,744     |
| Hamilton     | 13,457     | 13,792     | 13,952     | 14,039     | 14,346     | 14,319     | 14,571     | 14,725     | 14,763     | 14,769     | 14,744     |
| Hardee       | 26,952     | 27,021     | 27,474     | 27,434     | 27,898     | 27,277     | 27,240     | 27,574     | 27,650     | 28,359     | 28,282     |
| Hendry       | 36,300     | 36,256     | 36,174     | 36,739     | 37,800     | 38,610     | 38,870     | 39,846     | 40,295     | 41,997     | 40,980     |
| Hernando     | 131,298    | 133,497    | 137,613    | 141,574    | 146,118    | 152,049    | 158,441    | 163,035    | 165,329    | 166,850    | 165,758    |
| Highlands    | 87,676     | 88,373     | 89,343     | 90,770     | 92,456     | 93,807     | 97,336     | 98,987     | 99,760     | 100,834    | 99,825     |
| Hillsborough | 1,005,808  | 1,034,164  | 1,062,140  | 1,085,318  | 1,114,774  | 1,137,583  | 1,171,585  | 1,197,312  | 1,209,978  | 1,202,309  | 1,200,754  |
| Holmes       | 18,620     | 18,713     | 18,746     | 18,983     | 19,027     | 19,189     | 19,525     | 19,432     | 19,406     | 19,943     | 19,904     |
| Indian River | 113,755    | 116,291    | 118,884    | 121,887    | 127,831    | 130,849    | 136,546    | 140,469    | 142,452    | 141,926    | 142,108    |
| Jackson      | 46,998     | 47,534     | 47,963     | 49,218     | 48,891     | 49,883     | 50,286     | 50,482     | 51,106     | 53,663     | 52,853     |
| Jefferson    | 12,874     | 13,107     | 13,329     | 13,618     | 14,110     | 14,265     | 14,390     | 14,513     | 14,562     | 14,732     | 14,800     |

**Table A. (Continued) Florida Population by Year and County, 2000-2010. (Source – Florida CHARTS; accessed February 2011)**

| County      | 2000      | 2001      | 2002      | 2003      | 2004      | 2005      | 2006      | 2007      | 2008      | 2009      | 2010      |
|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Lafayette   | 7,061     | 7,076     | 7,245     | 7,394     | 7,559     | 8,064     | 8,092     | 8,273     | 8,571     | 8,981     | 10,175    |
| Lake        | 212,823   | 222,988   | 233,622   | 242,919   | 254,246   | 265,716   | 279,583   | 288,078   | 293,216   | 292,605   | 293,883   |
| Lee         | 444,151   | 459,278   | 481,014   | 499,387   | 526,157   | 555,874   | 594,219   | 620,778   | 634,660   | 620,966   | 618,188   |
| Leon        | 240,631   | 245,070   | 249,744   | 256,921   | 265,258   | 272,749   | 272,573   | 272,938   | 273,741   | 275,369   | 274,966   |
| Levy        | 34,626    | 35,325    | 36,197    | 36,856    | 37,691    | 38,136    | 39,277    | 40,219    | 40,677    | 41,064    | 40,715    |
| Liberty     | 7,045     | 7,145     | 7,165     | 7,248     | 7,372     | 7,623     | 7,784     | 7,763     | 7,767     | 8,580     | 8,221     |
| Madison     | 18,775    | 18,878    | 18,974    | 19,183    | 19,564    | 19,738    | 19,846    | 19,960    | 20,018    | 20,266    | 20,285    |
| Manatee     | 265,701   | 272,342   | 279,366   | 288,888   | 297,037   | 306,557   | 309,952   | 317,395   | 321,323   | 318,765   | 318,700   |
| Marion      | 260,407   | 265,629   | 273,602   | 284,232   | 295,550   | 307,646   | 317,755   | 326,791   | 331,843   | 330,749   | 330,877   |
| Martin      | 127,430   | 129,415   | 132,009   | 135,280   | 138,329   | 141,871   | 142,859   | 143,914   | 144,736   | 143,588   | 143,859   |
| Monroe      | 79,721    | 80,850    | 81,030    | 80,473    | 81,336    | 82,628    | 80,055    | 78,729    | 78,157    | 75,213    | 78,003    |
| Nassau      | 58,037    | 59,452    | 61,643    | 63,523    | 65,478    | 66,019    | 68,662    | 69,745    | 70,447    | 73,732    | 73,241    |
| Okaloosa    | 171,264   | 174,228   | 178,036   | 182,020   | 186,744   | 189,766   | 193,668   | 197,164   | 198,884   | 196,622   | 197,043   |
| Okeechobee  | 35,998    | 36,211    | 36,715    | 37,377    | 38,153    | 37,752    | 38,821    | 39,038    | 39,116    | 40,133    | 39,757    |
| Orange      | 906,000   | 936,749   | 962,531   | 989,962   | 1,021,215 | 1,050,939 | 1,087,172 | 1,109,714 | 1,123,324 | 1,115,169 | 1,112,526 |
| Osceola     | 174,107   | 182,202   | 197,901   | 213,723   | 228,755   | 237,659   | 259,521   | 267,510   | 273,266   | 277,731   | 273,931   |
| Palm Beach  | 1,137,532 | 1,160,977 | 1,190,653 | 1,218,508 | 1,249,598 | 1,272,335 | 1,290,600 | 1,295,586 | 1,302,077 | 1,289,159 | 1,287,224 |
| Pasco       | 346,882   | 354,196   | 364,900   | 378,085   | 392,507   | 410,758   | 427,594   | 435,913   | 441,188   | 437,880   | 440,616   |
| Pinellas    | 923,308   | 930,602   | 935,274   | 941,435   | 944,966   | 948,925   | 947,122   | 942,911   | 940,645   | 932,909   | 926,217   |
| Polk        | 487,183   | 498,011   | 504,381   | 514,247   | 531,472   | 545,064   | 570,067   | 583,315   | 589,784   | 584,978   | 584,058   |
| Putnam      | 70,532    | 70,929    | 71,481    | 72,114    | 73,435    | 73,897    | 74,549    | 74,816    | 74,903    | 74,777    | 74,133    |
| Saint Johns | 124,613   | 129,880   | 135,467   | 141,216   | 151,114   | 159,168   | 167,553   | 175,521   | 179,857   | 186,142   | 186,841   |
| Saint Lucie | 194,062   | 199,390   | 205,396   | 213,614   | 228,480   | 243,061   | 263,319   | 273,868   | 279,469   | 274,460   | 275,298   |
| Santa Rosa  | 118,605   | 122,252   | 125,947   | 129,842   | 134,761   | 137,245   | 142,004   | 142,094   | 142,991   | 145,579   | 145,550   |
| Sarasota    | 328,135   | 335,428   | 341,784   | 350,664   | 360,214   | 370,123   | 381,828   | 388,641   | 392,262   | 391,997   | 389,770   |
| Seminole    | 368,231   | 380,763   | 389,549   | 396,934   | 405,565   | 413,937   | 422,288   | 426,364   | 429,244   | 423,947   | 423,952   |
| Sumter      | 54,203    | 58,083    | 61,979    | 63,522    | 67,221    | 75,660    | 84,687    | 90,996    | 94,125    | 96,033    | 100,392   |
| Suwannee    | 35,091    | 35,744    | 35,815    | 37,479    | 37,863    | 38,319    | 39,008    | 39,816    | 40,773    | 42,181    | 43,908    |
| Taylor      | 19,297    | 19,594    | 19,878    | 20,794    | 20,977    | 21,395    | 21,696    | 22,721    | 23,062    | 23,701    | 23,132    |
| Union       | 13,473    | 13,660    | 13,786    | 13,793    | 14,752    | 15,135    | 15,160    | 15,865    | 16,112    | 16,157    | 15,705    |
| Volusia     | 445,676   | 453,840   | 462,377   | 473,185   | 486,874   | 497,224   | 505,317   | 508,468   | 511,094   | 508,844   | 506,719   |
| Wakulla     | 23,150    | 23,936    | 24,340    | 25,141    | 25,692    | 27,193    | 28,727    | 29,632    | 30,575    | 31,931    | 31,742    |
| Walton      | 40,990    | 43,270    | 46,052    | 47,472    | 51,167    | 54,218    | 56,199    | 57,318    | 58,264    | 58,046    | 57,982    |
| Washington  | 21,069    | 21,516    | 21,702    | 21,987    | 22,534    | 23,255    | 23,179    | 23,876    | 24,307    | 25,600    | 25,109    |

**Table B. Florida Population by Age Group, 2010**

| <b>Age Group</b> | <b>2010</b>       |
|------------------|-------------------|
| <1               | 210,745           |
| 1-4              | 925,626           |
| 5-9              | 1,132,721         |
| 10-14            | 1,133,067         |
| 15-19            | 1,193,291         |
| 20-24            | 1,209,878         |
| 25-34            | 2,282,290         |
| 35-44            | 2,384,476         |
| 45-54            | 2,669,237         |
| 55-64            | 2,323,781         |
| 65-74            | 1,630,499         |
| 75-84            | 1,151,917         |
| 85+              | 541,267           |
| <b>Total</b>     | <b>18,788,795</b> |

**Table C. Florida Population by Gender, 2010**

| <b>Gender</b> | <b>2010</b>       |
|---------------|-------------------|
| Female        | 9,575,127         |
| Male          | 9,213,668         |
| <b>Total</b>  | <b>18,788,795</b> |

**Table D. Florida Population by Race, Aggregated to White and Non-White, 2010**

| <b>Race</b>     | <b>2010</b>       |
|-----------------|-------------------|
| White           | 15,135,817        |
| Black           | 3,106,660         |
| Other Non-white | 546,318           |
| <b>Total</b>    | <b>18,788,795</b> |

## List of Reportable Diseases and Conditions in Florida, 2010

Section 381.0031 (1) (2), Florida Statutes, provides that “Any practitioner, licensed in Florida to practice medicine, osteopathic medicine, chiropractic, naturopathy, or veterinary medicine, who diagnoses or suspects the existence of a disease of public health significance shall immediately report the fact to the Department of Health.” County health departments serve as the department’s representative in this reporting requirement. Furthermore, this statute provides that “Periodically the Department shall issue a list of diseases determined by it to be of public health significance...and shall furnish a copy of said list to the practitioners...”. This list reflects diseases and conditions that were reportable in 2010. Updates may be made in future years; Annual Morbidity Reports for subsequent years will reflect changes in the list.

|  |   |
|--|---|
| Acquired Immune Deficiency Syndrome (AIDS)   | Malaria   |
| Amebic encephalitis  | Measles (Rubeola)   |
| Anthrax  | Melioidosis   |
| Arsenic Poisoning  | Meningitis (bacterial, cryptococcal, mycotic)   |
| Botulism   | Meningococcal Disease (includes meningitis and meningococemia)                                |
| Brucellosis  | Mercury Poisoning   |
| California serogroup virus (neuroinvasive and non-neuroinvasive)   | Mumps   |
| Campylobacteriosis   | Neurotoxic Shellfish Poisoning  |
| Cancer (except non-melanoma skin cancer, and including benign and borderline intracranial and CNS tumors)  | Pertussis   |
| Carbon Monoxide Poisoning  | Pesticide-related illness and injury  |
| Chancroid  | Plague  |
| Chlamydia  | Poliomyelitis   |
| Cholera  | Psittacosis (Ornithosis)  |
| Ciguatera fish poisoning (Ciguatera)   | Q Fever   |
| Congenital anomalies   | Rabies (human, animal)  |
| Conjunctivitis (in neonates ≤ 14 days old)   | Rabies (possible exposure)  |
| Creutzfeldt-Jakob Disease (CJD)  | Ricin toxicity  |
| Cryptosporidiosis  | Rocky Mountain spotted fever  |
| Cyclosporiasis   | Rubella (including congenital)  |
| Dengue   | St. Louis encephalitis (SLE) virus disease (neuroinvasive and non-neuroinvasive)              |
| Diphtheria   | Salmonellosis   |
| Eastern equine encephalitis virus disease (neuroinvasive and non-neuroinvasive)  | Saxitoxin Poisoning (including paralytic shellfish poisoning)                                 |
| Ehrlichiosis/Anaplasmosis [human granulocytic (HGA), human monocytic (HME), human other or unspecified agent]  | Severe Acute Respiratory Syndrome-associated <i>Coronavirus</i> (SARS-CoV) disease            |
| Encephalitis, other (non-arboviral)  | Shigellosis   |
| Enteric diseases due to:   | Smallpox  |
| <i>Escherichia coli</i> , O157:H7  | <i>Staphylococcus aureus</i> (with intermediate or full resistance to vancomycin, VISA, VRSA) |
| <i>Escherichia coli</i> , other pathogenic <i>E. coli</i> including enterotoxigenic, invasive, pathogenic, hemorrhagic, aggregative strains and shiga toxin positive strains | <i>Staphylococcus aureus</i> , methicillin resistant (MRSA), community associated mortalities |
| Giardiasis   | <i>Staphylococcus</i> enterotoxin B   |
| Glanders   | Streptococcal Disease (invasive, Group A)   |
| Gonorrhea  | <i>Streptococcus pneumoniae</i> (invasive disease)  |
| Granuloma Inguinale  | Syphilis  |
| <i>Haemophilus influenzae</i> (meningitis and invasive disease)  | Tetanus   |
| Hansen’s Disease (Leprosy)   | Toxoplasmosis (acute)   |
| Hantavirus infection   | Trichinosis   |
| Hemolytic Uremic Syndrome  | Tuberculosis  |
| Hepatitis A  | Tularemia   |
| Hepatitis B, C, D, E, and G  | Typhoid Fever   |
| Hepatitis B surface antigen (HBsAg) positive in a pregnant woman or a child ≤ 24 months of age   | Typhus Fever (epidemic and endemic)   |
| Herpes Simplex Virus (HSV) [in Infants to 6 months of age; anogenital in children ≤ 12 yrs]  | Vaccinia Disease  |
| Human Immunodeficiency Virus (HIV)   | Varicella mortality   |
| Human papillomavirus (HPV) [in children ≤ 6 years; anogenital in children ≤ 12 yrs, cancer associated strains]   | Venezuelan equine encephalitis virus disease (neuroinvasive and non-neuroinvasive)            |
| Influenza due to novel or pandemic strains   | Vibriosis ( <i>Vibrio</i> infections)   |
| Influenza-associated pediatric mortality (in persons aged < 18 yrs)  | Viral hemorrhagic fevers (Ebola, Marburg, Lassa, Machupo)                                     |
| Lead Poisoning   | West Nile virus disease (neuroinvasive and non-neuroinvasive)                                 |
| Legionellosis  | Western equine encephalitis virus disease (neuroinvasive and non-neuroinvasive)               |
| Leptospirosis  | Yellow Fever  |
| Listeriosis  | Any disease outbreak  |
| Lyme Disease   | Any grouping or clustering  |
| Lymphogranuloma Venereum (LGV)   |   |

## Selected Florida Department of Health Contacts

### Division of Disease Control

|  |                                      |
|--|--------------------------------------|
| Bureau of Epidemiology   | (850) 245-4401 (accessible 24/7/365) |
| Bureau of Immunization   | (850) 245-4342                       |
| Bureau of HIV/AIDS   | (850) 245-4334                       |
| Bureau of Sexually Transmitted Disease<br>Prevention and Control | (850) 245-4303                       |
| Bureau of Tuberculosis and Refugee Health                        | (850) 245-4350                       |

### Division of Environmental Health

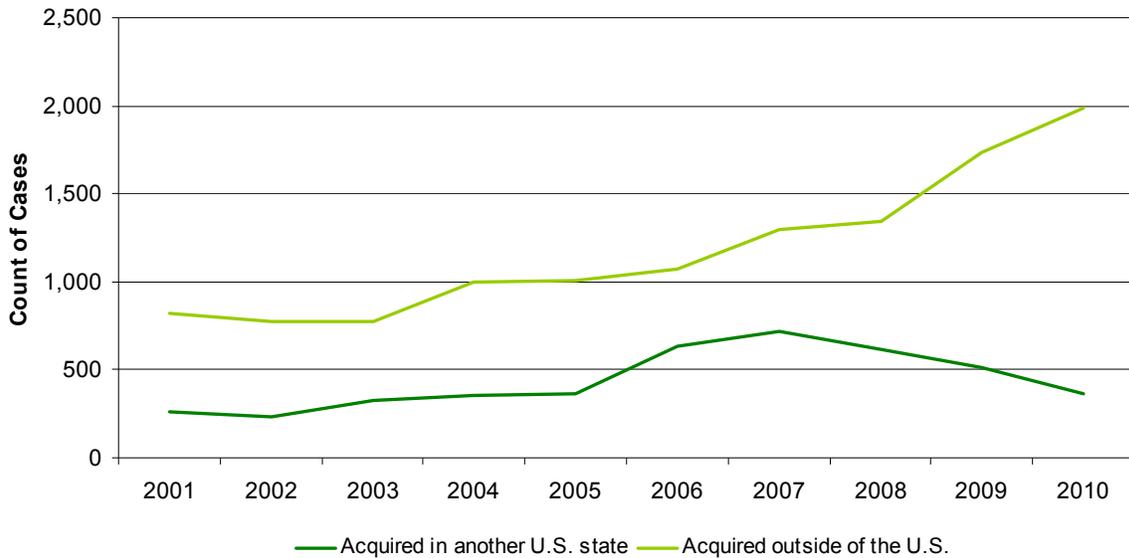
|  |                |
|--|----------------|
| Bureau of Environmental Public Health Medicine | (850) 245-4277 |
|--|----------------|

## Travel-Related Illness in Florida, Snapshot of Recent Trends

Reports of selected diseases and conditions are received by the Florida Department of Health from physicians and laboratories. Case reports for acute diseases excluding HIV, STDs, and tuberculosis (TB) are entered into the state's reportable disease surveillance system, Merlin, by county health departments. Data included in the summary below is limited to cases reported in Merlin. This is a snapshot of all cases aggregated at the state level with a focus on where the disease was acquired. The proportion of illnesses that are acquired in particular states, countries, or jurisdictions differs by disease and is often discussed more in-depth in the individual disease summaries included in Section 2 of this report. Additionally, importation of disease is a significant factor in the epidemiology of TB. TB is not discussed in this snapshot but is covered extensively in the TB summary contained in Section 2.

With the ease of international travel, as well as the large number of tourists that visit Florida each year, there is significant potential for the importation of disease to the state. Residents and non-residents alike are capable of introducing infectious diseases into Florida's population. Over the past ten years, the recorded number of cases of reportable disease where illness was determined to be acquired outside of Florida has risen steadily. However, when summarized by illness acquired domestically versus internationally it is apparent that the dramatic increase in non-Florida acquired illness is due to international travel (Figure 1). Illness associated with disease acquired in the U.S., but not in Florida has decreased over the past four years.

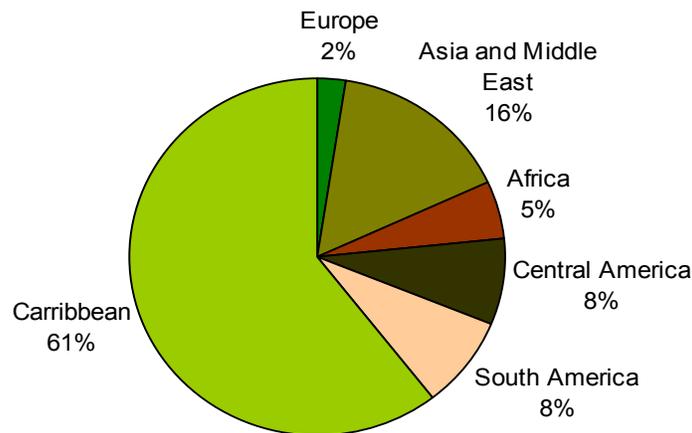
**Figure 1.** Cases of Reportable Disease in Florida Residents where Illness was Acquired Outside of the State of Florida, by Acquisition Location, 2001-2010



Common categories of travel include trips for pleasure and business. In addition to Florida residents who travel for pleasure or business, another category of international travel are those who travel to visit with friends and relatives (VFR). These populations are likely Florida residents whose family still resides in their country of origin. When visiting with family and friends, VFRs are likely to eat traditional foods, such as unpasteurized dairy products, which can pose a risk to their health. Additionally, VFRs are less likely to take certain precautions, such as taking anti-malarial medications, when traveling home because of a perceived lack of risk. Travel-related illness is also frequently associated with immigration. Florida is consistently ranked as one of the top six states in the U.S. Immigrants are screened for many infectious and chronic diseases upon entry into the country. All cases of reportable diseases are referred to the county health department and then reported as Florida residents.

For cases of reportable diseases captured in Merlin, in addition to the import status of the case, information about the country of origin is also entered. There were a total of 1,984 cases of a reportable disease reported in 2010 which were listed as being acquired outside of the U.S. The highest proportion of cases listed as acquired outside of the U.S. were imported from Cuba (N=640), Haiti (N=253), Puerto Rico (N=54), China (N=50), India (N=45), Mexico (N=45), and the Dominican Republic (N=41). Figure 2 groups countries into larger geographic regions.

**Figure 2.** Florida Cases or Reportable Diseases Acquired Outside of the U.S., by Region of Origin, 2010



Another area of significant morbidity are cases of infectious disease that are imported into Florida by a person who is traveling within the state but whose residence is outside of Florida. Because cases of reportable disease are classified according to the person’s state of residence, cases of disease in travelers to Florida are not reflected in Florida’s statistics and are not included in the other sections of this Annual Morbidity Statistics Report. It is estimated that over 82 million people visited Florida in 2010. Of those, approximately 71 million were from within the U.S., three million were from Canada, and eight million were from other international locations. These travelers may bring with them any number of infectious diseases. When ill individuals are identified, it is essential for public health to respond quickly and effectively to prevent continued transmission of the disease among other travelers as well as Florida residents. Measles is an example of a disease which commonly poses a threat to Florida residents from international travelers. Measles has become endemic in the United Kingdom and several other countries in Europe due to decreased numbers of individuals receiving vaccine.

Diseases which are commonly imported in travelers which require immediate public health action include measles, malaria, dengue, and *Brucella* (*melitensis* and *abortus* species) infections, to name a few. Specifically, malaria and dengue infections necessitate pesticide applications in the areas where the infected persons were near competent vectors. This reduces the risk that these diseases will be re-introduced to the state or to new areas of the state. For *Brucella melitensis* or *abortus* infections, it is essential to identify the travel history of individuals as well as establish other exposure information including livestock and unpasteurized cheese exposures. *Brucella melitensis* and *abortus* infections have been eliminated in Florida and would cause significant economic impact to commercial livestock if they were re-introduced in the state. Several examples of imported disease investigations are discussed in-depth in Section 5: Summary of Notable Outbreaks and Case Investigations. These summaries include cholera cases imported from Haiti after the January 2010 earthquake, an investigation of malaria in airline staff, which was acquired in Africa during a series of layovers, as well as measles in a traveler returning from Europe. However, the summaries in Section 5 do not cover all investigations that were conducted within the state associated with disease importation.

On January 12, 2010, an earthquake occurred near the Haitian capital of Port-au-Prince, creating enormous devastation. Florida's close proximity to Haiti resulted in >22,000 people entering Florida from Haiti as part of federal repatriation and humanitarian parolee efforts. Travel between Florida and Haiti is common and reportable diseases introduced by travelers returning from Haiti are identified every year. Because of the anticipated large post-earthquake influx of persons into Florida from Haiti, Florida enhanced surveillance efforts. Merlin was used to document cases of reportable diseases in people coming to Florida who were in Haiti at the time of or after the earthquake, regardless of residency. The Outbreak Module within Merlin was used to capture data on Haiti travel, medical condition upon entry into the U.S., and citizenship. During the post-earthquake period, 51 cases in Florida residents and 31 cases in non-Florida residents were recorded. Please see Section 5 under "Haiti" for a detailed breakdown of the diseases captured in Merlin related to the Haiti earthquake.

## References

Florida Research Fact Sheet, available at: <http://media.visitflorida.org/research.php>.

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Migration Policy Institute. Immigration Facts. Published October 2004. Available at: [http://www.migrationpolicy.org/Factsheet\\_102904.pdf](http://www.migrationpolicy.org/Factsheet_102904.pdf).