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1999 West Nile Virus Activity in the United States

| State | Encephalitis/Meningitis | Fever | Clinical/Unspecified | Total | Fatalities |
|--------------|-------------------------|----------|----------------------|-----------|------------|
| New York | 59 | 3 | 0 | 62 | 7 |
| Total | 59 | 3 | 0 | 62 | 7 |

West Nile encephalitis and West Nile meningitis are forms of severe disease that affect a person’s nervous system. Encephalitis refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord. [Click here for further explanation of WN meningitis and/or encephalitis.](#)

West Nile fever refers to typically less severe cases that show no evidence of neuroinvasion. WN fever is considered a notifiable disease, however the number of cases reported (as with all diseases) may be limited by whether persons affected seek care, whether laboratory diagnosis is ordered and the extent to which cases are reported to health authorities by the diagnosing physician.

Other Clinical includes persons with clinical manifestations other than WN fever, WN encephalitis or WN meningitis, such as acute flaccid paralysis. **Clinical/Unspecified** cases are those for which sufficient clinical information was not provided.

Total Human Cases Reported to CDC- These numbers reflect both mild and severe human disease cases occurring between January 1, 1999 through December 31, 1999 that have been reported to ArboNET by state and local health departments. ArboNET is the national, electronic surveillance system established by CDC to assist states in tracking West Nile virus and other mosquito-borne viruses. Information regarding 1999 virus/disease activity is posted when such cases are reported to CDC.

Of the 62 cases, 59 (95%) were reported as West Nile meningitis or encephalitis (neuroinvasive disease), 3 (5%) were reported as West Nile fever (milder disease), and 0 (0%) were clinically Clinical/Unspecified at this time. Please refer to [state health department web sites](#) for further details regarding state case totals.

Note: The high proportion of neuroinvasive disease cases among reported cases of West Nile virus disease reflects surveillance reporting bias. Serious cases are more likely to be reported than mild cases. Also, the surveillance system is not designed to detect asymptomatic infections. Data from population-based surveys indicate that among all people who become infected with West Nile virus (including people with asymptomatic infections) less than 1% will develop severe neuroinvasive disease. See: Mostashari F, Bunning ML, Kitsutani PT, et al. Epidemic West Nile Encephalitis, New York, 1999: Results of a household-based seroepidemiological survey. Lancet 2001;358:261-264.

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2000 West Nile Virus Activity in the United States

| State | Encephalitis/Meningitis | Fever | Clinical/Unspecified | Total | Fatalities |
|--------------|-------------------------|----------|----------------------|-----------|------------|
| Connecticut | 0 | 1 | 0 | 1 | 0 |
| New Jersey | 5 | 1 | 0 | 6 | 1 |
| New York | 14 | 0 | 0 | 14 | 1 |
| Total | 19 | 2 | 0 | 21 | 2 |

West Nile encephalitis and West Nile meningitis are forms of severe disease that affect a person’s nervous system. Encephalitis refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord. [Click here for further explanation of WN meningitis and/or encephalitis.](#)

West Nile fever refers to typically less severe cases that show no evidence of neuroinvasion. WN fever is considered a notifiable disease, however the number of cases reported (as with all diseases) may be limited by whether persons affected seek care, whether laboratory diagnosis is ordered and the extent to which cases are reported to health authorities by the diagnosing physician.

Other Clinical includes persons with clinical manifestations other than WN fever, WN encephalitis or WN meningitis, such as acute flaccid paralysis. **Clinical/Unspecified** cases are those for which sufficient clinical information was not provided.

Total Human Cases Reported to CDC- These numbers reflect both mild and severe human disease cases occurring between January 1, 2001 through December 31, 2001 that have been reported to ArboNET by state and local health departments. ArboNET is the national, electronic surveillance system established by CDC to assist states in tracking West Nile virus and other mosquito-borne viruses. Information regarding 2001 virus/disease activity is posted when such cases are reported to CDC.

Of the 21 cases, 19 (90%) were reported as West Nile meningitis or encephalitis (neuroinvasive disease), 2 (10%) were reported as West Nile fever (milder disease), and 0 (0%) were clinically Clinical/Unspecified at this time. Please refer to [state health department web sites](#) for further details regarding state case totals.

Note: The high proportion of neuroinvasive disease cases among reported cases of West Nile virus disease reflects surveillance reporting bias. Serious cases are more likely to be reported than mild cases. Also, the surveillance system is not designed to detect asymptomatic infections. Data from population-based surveys indicate that among all people who become infected with West Nile virus (including people with asymptomatic infections) less than 1% will develop severe neuroinvasive disease. See: Mostashari F, Bunning ML, Kitsutani PT, et al. Epidemic West Nile Encephalitis, New York, 1999: Results of a household-based seroepidemiological survey. *Lancet* 2001;358:261-264.

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2001 West Nile Virus Activity in the United States

| State | Encephalitis/Meningitis | Fever | Clinical/Unspecified | Total | Fatalities |
|---------------|-------------------------|----------|----------------------|-----------|------------|
| Alabama | 2 | 0 | 0 | 2 | 1 |
| Connecticut | 6 | 0 | 0 | 6 | 1 |
| Florida | 12 | 0 | 0 | 12 | 0 |
| Georgia | 6 | 0 | 0 | 6 | 1 |
| Louisiana | 1 | 0 | 0 | 1 | 0 |
| Maryland | 6 | 0 | 0 | 6 | 2 |
| Massachusetts | 3 | 0 | 0 | 3 | 1 |
| New Jersey | 12 | 0 | 0 | 12 | 1 |
| New York | 13 | 2 | 0 | 15 | 3 |
| Pennsylvania | 3 | 0 | 0 | 3 | 0 |
| Total | 64 | 2 | 0 | 66 | 10 |

West Nile encephalitis and West Nile meningitis are forms of severe disease that affect a person’s nervous system. Encephalitis refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord. [Click here for further explanation of WN meningitis and/or encephalitis.](#)

West Nile fever refers to typically less severe cases that show no evidence of neuroinvasion. WN fever is considered a notifiable disease, however the number of cases reported (as with all diseases) may be limited by whether persons affected seek care, whether laboratory diagnosis is ordered and the extent to which cases are reported to health authorities by the diagnosing physician.

Other Clinical includes persons with clinical manifestations other than WN fever, WN encephalitis or WN meningitis, such as acute flaccid paralysis. **Clinical/Unspecified** cases are those for which sufficient clinical information was not provided.

Total Human Cases Reported to CDC- These numbers reflect both mild and severe human disease cases occurring between January 1, 2001 through December 31, 2001 that have been reported to ArboNET by state and local health departments. ArboNET is the national, electronic surveillance system established by CDC to assist states in tracking West Nile virus and other mosquito-borne viruses. Information regarding 2001 virus/disease activity is posted when such cases are reported to CDC.

Of the 66 cases, 64 (97%) were reported as West Nile meningitis or encephalitis (neuroinvasive disease), 2 (3%) were reported as West Nile fever (milder disease), and 0 (0%) were clinically Clinical/Unspecified at this time. Please refer to [state health department web sites](#) for further details regarding state case totals.

Note: The high proportion of neuroinvasive disease cases among reported cases of West Nile virus disease reflects surveillance reporting bias. Serious cases are more likely to be reported than mild cases. Also, the surveillance system is not designed to detect asymptomatic infections. Data from population-based surveys indicate that among all people who become infected with West Nile virus (including people with asymptomatic infections) less than 1% will develop severe neuroinvasive disease. See: Mostashari F, Bunning ML, Kitsutani PT, et al. Epidemic West Nile Encephalitis, New York, 1999: Results of a household-based seroepidemiological survey. Lancet 2001;358:261-264.

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2002 West Nile Virus Activity in the United States

| State | Encephalitis/Meningitis | Fever | Clinical/Unspecified | Total | Fatalities |
|----------------------|-------------------------|-------------|----------------------|-------------|------------|
| Alabama | 34 | 15 | 0 | 49 | 3 |
| Arkansas | 32 | 11 | 0 | 43 | 3 |
| California | 1 | 0 | 0 | 1 | 0 |
| Colorado | 6 | 8 | 0 | 14 | 0 |
| Connecticut | 10 | 6 | 1 | 17 | 0 |
| Delaware | 0 | 1 | 0 | 1 | 0 |
| District of Columbia | 14 | 19 | 1 | 34 | 1 |
| Florida | 28 | 0 | 0 | 28 | 2 |
| Georgia | 28 | 15 | 1 | 44 | 7 |
| Illinois | 553 | 328 | 3 | 884 | 64 |
| Indiana | 180 | 102 | 11 | 293 | 11 |
| Iowa | 27 | 27 | 0 | 54 | 2 |
| Kansas | 22 | 0 | 0 | 22 | 0 |
| Kentucky | 53 | 22 | 0 | 75 | 5 |
| Louisiana | 204 | 122 | 3 | 329 | 25 |
| Maryland | 22 | 14 | 0 | 36 | 7 |
| Massachusetts | 19 | 4 | 0 | 23 | 3 |
| Michigan | 557 | 54 | 3 | 614 | 51 |
| Minnesota | 16 | 32 | 0 | 48 | 0 |
| Mississippi | 162 | 29 | 1 | 192 | 12 |
| Missouri | 126 | 42 | 0 | 168 | 7 |
| Montana | 2 | 0 | 0 | 2 | 0 |
| Nebraska | 84 | 53 | 15 | 152 | 7 |
| New Jersey | 16 | 8 | 0 | 24 | 0 |
| New York | 68 | 12 | 2 | 82 | 5 |
| North Carolina | 2 | 0 | 0 | 2 | 0 |
| North Dakota | 3 | 11 | 3 | 17 | 2 |
| Ohio | 310 | 131 | 0 | 441 | 31 |
| Oklahoma | 16 | 4 | 1 | 21 | 2 |
| Pennsylvania | 42 | 20 | 0 | 62 | 7 |
| Rhode Island | 1 | 0 | 0 | 1 | 0 |
| South Carolina | 1 | 0 | 0 | 1 | 0 |
| South Dakota | 17 | 20 | 0 | 37 | 0 |
| Tennessee | 47 | 9 | 0 | 56 | 7 |
| Texas | 202 | 0 | 0 | 202 | 13 |
| Vermont | 0 | 1 | 0 | 1 | 0 |
| Virginia | 16 | 12 | 1 | 29 | 2 |
| West Virginia | 3 | 0 | 0 | 3 | 2 |
| Wisconsin | 22 | 26 | 4 | 52 | 3 |
| Wyoming | 0 | 2 | 0 | 2 | 0 |
| Total | 2946 | 1160 | 50 | 4156 | 284 |

West Nile encephalitis and West Nile meningitis are forms of severe disease that affect a person’s nervous system. Encephalitis refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord. [Click here for further explanation of WN meningitis and/or encephalitis.](#)

West Nile fever refers to typically less severe cases that show no evidence of neuroinvasion. WN fever is considered a notifiable disease, however the number of cases reported (as with all diseases) may be limited by whether persons affected seek care, whether laboratory diagnosis is ordered and the extent to which cases are reported to health authorities by the diagnosing physician.

Other Clinical includes persons with clinical manifestations other than WN fever, WN encephalitis or WN meningitis, such as acute flaccid paralysis. **Clinical/Unspecified** cases are those for which sufficient clinical information was not provided.

Total Human Cases Reported to CDC- These numbers reflect both mild and severe human disease cases occurring between January 1, 2002 through December 31, 2002 that have been reported to ArboNET by state and local health departments. ArboNET is the national, electronic surveillance system established by CDC to assist states in tracking West Nile virus and other mosquito-borne viruses. Information regarding 2002 virus/disease activity is posted when such cases are reported to CDC.

Of the 4156 cases, 2946 (71%) were reported as West Nile meningitis or encephalitis (neuroinvasive disease), 1160 (28%) were reported as West Nile fever (milder disease), and 50 (1%) were clinically Clinical/Unspecified at this time. Please refer to [state health department web sites](#) for further details regarding state case totals.

Note: The high proportion of neuroinvasive disease cases among reported cases of West Nile virus disease reflects surveillance reporting bias. Serious cases are more likely to be reported than mild cases. Also, the surveillance system is not designed to detect asymptomatic infections. Data from population-based surveys indicate that among all people who become infected with West Nile virus (including people with asymptomatic infections) less than 1% will develop severe neuroinvasive disease. See: Mostashari F, Bunning ML, Kitsutani PT, et al. Epidemic West Nile Encephalitis, New York, 1999: Results of a household-based seroepidemiological survey. *Lancet* 2001;358:261-264.

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2003 West Nile Virus Activity in the United States

| State | Encephalitis/Meningitis | Fever | Clinical/Unspecified | Total | Fatalities |
|----------------------|-------------------------|-------------|----------------------|-------------|------------|
| Alabama | 25 | 10 | 2 | 37 | 3 |
| Arizona | 7 | 2 | 4 | 13 | 1 |
| Arkansas | 23 | 2 | 0 | 25 | 0 |
| California | 2 | 1 | 0 | 3 | 0 |
| Colorado | 621 | 2326 | 0 | 2947 | 63 |
| Connecticut | 12 | 5 | 0 | 17 | 0 |
| Delaware | 12 | 4 | 1 | 17 | 2 |
| District of Columbia | 3 | 0 | 0 | 3 | 0 |
| Florida | 61 | 33 | 0 | 94 | 6 |
| Georgia | 27 | 21 | 2 | 50 | 4 |
| Idaho | 0 | 1 | 0 | 1 | 0 |
| Illinois | 30 | 24 | 0 | 54 | 1 |
| Indiana | 15 | 31 | 1 | 47 | 4 |
| Iowa | 81 | 65 | 1 | 147 | 6 |
| Kansas | 89 | 0 | 2 | 91 | 4 |
| Kentucky | 11 | 1 | 2 | 14 | 1 |
| Louisiana | 101 | 23 | 0 | 124 | 8 |
| Maryland | 49 | 23 | 1 | 73 | 8 |
| Massachusetts | 12 | 5 | 0 | 17 | 1 |
| Michigan | 14 | 4 | 1 | 19 | 2 |
| Minnesota | 48 | 100 | 0 | 148 | 4 |
| Mississippi | 34 | 38 | 15 | 87 | 1 |
| Missouri | 39 | 25 | 0 | 64 | 8 |
| Montana | 75 | 135 | 12 | 222 | 4 |
| Nebraska | 194 | 1741 | 7 | 1942 | 29 |
| Nevada | 2 | 0 | 0 | 2 | 0 |
| New Hampshire | 2 | 0 | 1 | 3 | 0 |
| New Jersey | 21 | 9 | 4 | 34 | 3 |
| New Mexico | 74 | 135 | 0 | 209 | 4 |
| New York | 57 | 12 | 2 | 71 | 11 |
| North Carolina | 16 | 8 | 0 | 24 | 2 |
| North Dakota | 94 | 523 | 0 | 617 | 5 |
| Ohio | 84 | 24 | 0 | 108 | 8 |
| Oklahoma | 56 | 23 | 0 | 79 | 0 |
| Pennsylvania | 145 | 90 | 2 | 237 | 8 |
| Rhode Island | 5 | 2 | 0 | 7 | 1 |
| South Carolina | 3 | 3 | 0 | 6 | 0 |
| South Dakota | 151 | 869 | 19 | 1039 | 14 |
| Tennessee | 21 | 5 | 0 | 26 | 1 |
| Texas | 431 | 289 | 0 | 720 | 37 |
| Utah | 0 | 1 | 0 | 1 | 0 |
| Vermont | 0 | 3 | 0 | 3 | 0 |
| Virginia | 19 | 1 | 6 | 26 | 1 |
| West Virginia | 1 | 1 | 0 | 2 | 0 |
| Wisconsin | 7 | 2 | 8 | 17 | 0 |
| Wyoming | 92 | 210 | 73 | 375 | 9 |
| Total | 2866 | 6830 | 166 | 9862 | 264 |

West Nile encephalitis and West Nile meningitis are forms of severe disease that affect a person’s nervous system. Encephalitis

refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord.
[Click here for further explanation of WN meningitis and/or encephalitis.](#)

West Nile fever refers to typically less severe cases that show no evidence of neuroinvasion. WN fever is considered a notifiable disease, however the number of cases reported (as with all diseases) may be limited by whether persons affected seek care, whether laboratory diagnosis is ordered and the extent to which cases are reported to health authorities by the diagnosing physician.

Other Clinical includes persons with clinical manifestations other than WN fever, WN encephalitis or WN meningitis, such as acute flaccid paralysis. **Clinical/Unspecified** cases are those for which sufficient clinical information was not provided.

Total Human Cases Reported to CDC for 2003- These numbers reflect both mild and severe human disease cases occurring between Jan.1 -Dec. 31, 2003 that have been reported to ArboNET by state and local health departments. ArboNET is the national, electronic surveillance system established by CDC to assist states in tracking West Nile virus and other mosquito-borne viruses. Information regarding 2004 virus/disease activity will be posted when such cases are reported to CDC.

Of 9862 cases, 6830 (69%) were reported as West Nile fever (milder disease), 2866 (29%) were reported as West Nile meningitis or encephalitis (*neuroinvasive disease*) and 166 (2%) were clinically Clinical/Unspecified. Please refer to [state health department web sites](#) for further details regarding state case totals.

Note: The high proportion of neuroinvasive disease cases among reported cases of West Nile virus disease reflects surveillance reporting bias. Serious cases are more likely to be reported than mild cases. Also, the surveillance system is not designed to detect asymptomatic infections. Data from population-based surveys indicate that among all people who become infected with West Nile virus (including people with asymptomatic infections) less than 1% will develop severe neuroinvasive disease. See: Mostashari F, Bunning ML, Kitsutani PT, et al. Epidemic West Nile Encephalitis, New York, 1999: Results of a household-based seroepidemiological survey. Lancet 2001;358:261-264.

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2004 West Nile Virus Activity in the United States

| State | Encephalitis/Meningitis | Fever | Clinical/Unspecified | Total | Fatalities |
|----------------------|-------------------------|-------------|----------------------|-------------|------------|
| Alabama | 15 | 1 | 0 | 16 | 0 |
| Arizona | 214 | 160 | 17 | 391 | 16 |
| Arkansas | 17 | 10 | 1 | 28 | 0 |
| California | 289 | 395 | 95 | 779 | 28 |
| Colorado | 41 | 250 | 0 | 291 | 4 |
| Connecticut | 0 | 1 | 0 | 1 | 0 |
| District of Columbia | 1 | 1 | 0 | 2 | 0 |
| Florida | 33 | 8 | 0 | 41 | 2 |
| Georgia | 14 | 7 | 0 | 21 | 1 |
| Idaho | 1 | 2 | 0 | 3 | 0 |
| Illinois | 29 | 30 | 1 | 60 | 4 |
| Indiana | 8 | 2 | 3 | 13 | 1 |
| Iowa | 13 | 9 | 1 | 23 | 2 |
| Kansas | 18 | 25 | 0 | 43 | 2 |
| Kentucky | 1 | 6 | 0 | 7 | 0 |
| Louisiana | 85 | 24 | 0 | 109 | 7 |
| Maryland | 10 | 6 | 0 | 16 | 0 |
| Michigan | 13 | 3 | 0 | 16 | 0 |
| Minnesota | 13 | 21 | 0 | 34 | 2 |
| Mississippi | 31 | 18 | 2 | 51 | 4 |
| Missouri | 27 | 9 | 0 | 36 | 2 |
| Montana | 2 | 3 | 1 | 6 | 0 |
| Nebraska | 7 | 46 | 0 | 53 | 0 |
| Nevada | 25 | 19 | 0 | 44 | 0 |
| New Jersey | 1 | 0 | 0 | 1 | 0 |
| New Mexico | 31 | 53 | 4 | 88 | 4 |
| New York | 7 | 3 | 0 | 10 | 0 |
| North Carolina | 3 | 0 | 0 | 3 | 0 |
| North Dakota | 2 | 18 | 0 | 20 | 2 |
| Ohio | 11 | 1 | 0 | 12 | 2 |
| Oklahoma | 16 | 6 | 0 | 22 | 3 |
| Oregon | 0 | 3 | 0 | 3 | 0 |
| Pennsylvania | 9 | 5 | 1 | 15 | 2 |
| South Carolina | 0 | 2 | 0 | 2 | 0 |
| South Dakota | 6 | 45 | 0 | 51 | 1 |
| Tennessee | 13 | 1 | 0 | 14 | 0 |
| Texas | 119 | 57 | 0 | 176 | 8 |
| Utah | 6 | 5 | 0 | 11 | 0 |
| Virginia | 4 | 0 | 1 | 5 | 1 |
| Wisconsin | 5 | 7 | 0 | 12 | 2 |
| Wyoming | 2 | 7 | 1 | 10 | 0 |
| Total | 1142 | 1269 | 128 | 2539 | 100 |

West Nile encephalitis and West Nile meningitis are forms of severe disease that affect a person’s nervous system. Encephalitis refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord. [Click here for further explanation of WN meningitis and/or encephalitis.](#)

West Nile fever refers to typically less severe cases that show no evidence of neuroinvasion. WN fever is considered a notifiable disease, however the number of cases reported (as with all diseases) may be limited by whether persons affected seek care, whether laboratory diagnosis is ordered and the extent to which cases are reported to health authorities by the diagnosing physician.

Other Clinical includes persons with clinical manifestations other than WN fever, WN encephalitis or WN meningitis, such as acute flaccid paralysis. **Clinical/Unspecified** cases are those for which sufficient clinical information was not provided.

Total Human Cases Reported to CDC- These numbers reflect both mild and severe human disease cases occurring between January 1, 2004 through December 31, 2004 that have been reported to ArboNET by state and local health departments. ArboNET is the national, electronic surveillance system established by CDC to assist states in tracking West Nile virus and other mosquito-borne viruses. Information regarding 2004 virus/disease activity is posted when such cases are reported to CDC.

Of the 2539 cases, 1142 (45%) were reported as West Nile meningitis or encephalitis (neuroinvasive disease), 1269 (50%) were reported as West Nile fever (milder disease), and 128 (5%) were clinically Clinical/Unspecified at this time. Please refer to [state health department web sites](#) for further details regarding state case totals.

Note: The high proportion of neuroinvasive disease cases among reported cases of West Nile virus disease reflects surveillance reporting bias. Serious cases are more likely to be reported than mild cases. Also, the surveillance system is not designed to detect asymptomatic infections. Data from population-based surveys indicate that among all people who become infected with West Nile virus (including people with asymptomatic infections) less than 1% will develop severe neuroinvasive disease. See: Mostashari F, Bunning ML, Kitsutani PT, et al. Epidemic West Nile Encephalitis, New York, 1999: Results of a household-based seroepidemiological survey. *Lancet* 2001;358:261-264.

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2005 West Nile Virus Activity in the United States

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| State | Encephalitis/Meningitis | Fever | Other Clinical/Unspecified | Total | Fatalities |
|----------------------|-------------------------|-------------|----------------------------|-------------|------------|
| Alabama | 6 | 4 | 0 | 10 | 2 |
| Arizona | 50 | 61 | 2 | 113 | 5 |
| Arkansas | 13 | 15 | 0 | 28 | 4 |
| California | 299 | 534 | 47 | 880 | 19 |
| Colorado | 21 | 85 | 0 | 106 | 2 |
| Connecticut | 4 | 2 | 0 | 6 | 1 |
| Delaware | 1 | 0 | 1 | 2 | 0 |
| District of Columbia | 3 | 2 | 0 | 5 | 0 |
| Florida | 10 | 11 | 0 | 21 | 1 |
| Georgia | 9 | 7 | 4 | 20 | 2 |
| Idaho | 3 | 10 | 0 | 13 | 0 |
| Illinois | 134 | 91 | 27 | 252 | 13 |
| Indiana | 10 | 2 | 11 | 23 | 1 |
| Iowa | 14 | 21 | 2 | 37 | 2 |
| Kansas | 17 | 8 | 0 | 25 | 1 |
| Kentucky | 5 | 0 | 0 | 5 | 1 |
| Louisiana | 117 | 54 | 0 | 171 | 11 |
| Maryland | 4 | 1 | 0 | 5 | 0 |
| Massachusetts | 4 | 2 | 0 | 6 | 1 |
| Michigan | 52 | 8 | 2 | 62 | 4 |
| Minnesota | 18 | 27 | 0 | 45 | 3 |
| Mississippi | 39 | 31 | 0 | 70 | 6 |
| Missouri | 17 | 13 | 0 | 30 | 3 |
| Montana | 8 | 17 | 0 | 25 | 0 |
| Nebraska | 55 | 133 | 0 | 188 | 5 |
| Nevada | 14 | 15 | 2 | 31 | 1 |
| New Jersey | 3 | 3 | 0 | 6 | 0 |
| New Mexico | 20 | 13 | 0 | 33 | 2 |
| New York | 30 | 8 | 0 | 38 | 4 |
| North Carolina | 2 | 2 | 0 | 4 | 0 |
| North Dakota | 12 | 74 | 0 | 86 | 0 |
| Ohio | 46 | 15 | 0 | 61 | 2 |
| Oklahoma | 17 | 14 | 0 | 31 | 1 |
| Oregon | 1 | 6 | 0 | 7 | 0 |
| Pennsylvania | 14 | 11 | 0 | 25 | 2 |
| Rhode Island | 1 | 0 | 0 | 1 | 0 |
| South Carolina | 5 | 0 | 0 | 5 | 1 |
| South Dakota | 35 | 193 | 1 | 229 | 2 |
| Tennessee | 15 | 3 | 0 | 18 | 1 |
| Texas | 128 | 67 | 0 | 195 | 11 |
| Utah | 21 | 31 | 0 | 52 | 1 |
| Virginia | 0 | 1 | 0 | 1 | 0 |
| Wisconsin | 11 | 6 | 0 | 17 | 2 |
| Wyoming | 6 | 6 | 0 | 12 | 2 |
| Total | 1294 | 1607 | 99 | 3000 | 119 |

West Nile encephalitis and West Nile meningitis are forms of severe disease that affect a person’s nervous system. Encephalitis refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord. [Click here for further explanation of WN meningitis and/or encephalitis.](#)

West Nile fever refers to typically less severe cases that show no evidence of neuroinvasion.

WN fever is considered a notifiable disease, however the number of cases reported (as with all diseases) may be limited by whether persons affected seek care, whether laboratory diagnosis is ordered and the extent to which cases are reported to health authorities by the diagnosing physician.

Other Clinical includes persons with clinical manifestations other than WN fever, WN encephalitis or WN meningitis, such as acute flaccid paralysis. **Clinical/Unspecified** cases are those for which sufficient clinical information was not provided.

See the **case definition** (2004) for [Neuroinvasive and Non-Neuroinvasive Domestic Arboviral Diseases](#). From the CDC Epidemiology Program Office.

Total Human Cases Reported to CDC: These numbers reflect both mild and severe human disease cases occurring between January 1, 2005 to December 31, 2005 as reported through May 5, 2006 that have been reported to ArboNET by state and local health departments. ArboNET is the national, electronic surveillance system established by CDC to assist states in tracking West Nile virus and other mosquito-borne viruses. Information regarding 2005 virus/disease activity is posted when such cases are reported to CDC.

Of the 3000 cases, 1294 (43%) were reported as West Nile meningitis or encephalitis (neuroinvasive disease), 1607 (54%) were reported as West Nile fever (milder disease), and 99 (3%) were clinically Clinical/Unspecified at this time. Please refer to [state health department web sites](#) for further details regarding state case totals.

Note: The high proportion of neuroinvasive disease cases among reported cases of West Nile virus disease reflects surveillance reporting bias. Serious cases are more likely to be reported than mild cases. Also, the surveillance system is not designed to detect asymptomatic infections. Data from population-based surveys indicate that among all people who become infected with West Nile virus (including people with asymptomatic infections) less than 1% will develop severe neuroinvasive disease. See: Mostashari F, Bunning ML, Kitsutani PT, et al. Epidemic West Nile Encephalitis, New York, 1999: Results of a household-based seroepidemiological survey. *Lancet* 2001;358:261-264.

For Case Information:

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2006 West Nile Virus Activity in the United States

| State | Encephalitis/ Meningitis | Fever | Other Clinical/Unspecified | Total | Fatalities |
|----------------------|-----------------------------|-------------|-------------------------------|-------------|------------|
| Alabama | 8 | 0 | 0 | 8 | 0 |
| Arizona | 65 | 77 | 8 | 150 | 11 |
| Arkansas | 24 | 5 | 0 | 29 | 4 |
| California | 81 | 186 | 11 | 278 | 7 |
| Colorado | 66 | 279 | 0 | 345 | 7 |
| Connecticut | 7 | 2 | 0 | 9 | 1 |
| District of Columbia | 0 | 2 | 0 | 2 | 0 |
| Florida | 3 | 0 | 0 | 3 | 0 |
| Georgia | 2 | 5 | 1 | 8 | 1 |
| Idaho | 115 | 827 | 54 | 996 | 21 |
| Illinois | 122 | 69 | 24 | 215 | 10 |
| Indiana | 27 | 8 | 45 | 80 | 5 |
| Iowa | 21 | 13 | 3 | 37 | 0 |
| Kansas | 17 | 13 | 0 | 30 | 4 |
| Kentucky | 5 | 1 | 0 | 6 | 1 |
| Louisiana | 91 | 89 | 0 | 180 | 9 |
| Maryland | 9 | 1 | 1 | 11 | 1 |
| Massachusetts | 2 | 1 | 0 | 3 | 0 |
| Michigan | 43 | 10 | 2 | 55 | 7 |
| Minnesota | 31 | 34 | 0 | 65 | 3 |
| Mississippi | 89 | 94 | 0 | 183 | 14 |
| Missouri | 50 | 11 | 1 | 62 | 5 |
| Montana | 12 | 21 | 1 | 34 | 0 |
| Nebraska | 45 | 219 | 0 | 264 | 1 |
| Nevada | 34 | 76 | 14 | 124 | 1 |
| New Jersey | 2 | 2 | 1 | 5 | 0 |
| New Mexico | 3 | 5 | 0 | 8 | 1 |
| New York | 16 | 8 | 0 | 24 | 4 |
| North Carolina | 1 | 0 | 0 | 1 | 0 |
| North Dakota | 20 | 117 | 0 | 137 | 1 |
| Ohio | 36 | 12 | 0 | 48 | 4 |
| Oklahoma | 26 | 21 | 1 | 48 | 6 |
| Oregon | 7 | 50 | 12 | 69 | 2 |
| Pennsylvania | 8 | 1 | 0 | 9 | 2 |
| South Carolina | 1 | 0 | 0 | 1 | 0 |
| South Dakota | 38 | 75 | 0 | 113 | 3 |
| Tennessee | 16 | 6 | 0 | 22 | 1 |
| Texas | 233 | 121 | 0 | 354 | 32 |
| Utah | 56 | 102 | 0 | 158 | 5 |
| Virginia | 0 | 0 | 5 | 5 | 0 |
| Washington | 0 | 3 | 0 | 3 | 0 |
| West Virginia | 1 | 0 | 0 | 1 | 0 |
| Wisconsin | 11 | 10 | 0 | 21 | 1 |
| Wyoming | 15 | 40 | 10 | 65 | 2 |
| Totals | 1459 | 2616 | 194 | 4269 | 177 |

West Nile encephalitis and West Nile meningitis are forms of severe disease that affect a person’s nervous system. Encephalitis refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord. [Click here for further explanation of WN meningitis and/or encephalitis.](#)

West Nile fever refers to typically less severe cases that show no evidence of neuroinvasion.

WN fever is considered a notifiable disease, however the number of cases reported (as with all diseases) may be limited by whether persons affected seek care, whether laboratory diagnosis is ordered and the extent to which cases are reported to health authorities by the diagnosing physician.

Other Clinical includes persons with clinical manifestations other than WN fever, WN encephalitis or WN meningitis, such as acute flaccid paralysis. **Clinical/Unspecified** cases are those for which sufficient clinical information was not provided.

See the **case definition** (2004) for [Neuroinvasive and Non-Neuroinvasive Domestic Arboviral Diseases](#). From the CDC Epidemiology Program Office.

Total Human Cases Reported to CDC: These numbers reflect both mild and severe human disease cases occurring between January 1, 2006 to December 31, 2006 as reported through May 22, 2007 that have been reported to ArboNET by state and local health departments. ArboNET is the national, electronic surveillance system established by CDC to assist states in tracking West Nile virus and other mosquito-borne viruses. Information regarding 2006 virus/disease activity is posted when such cases are reported to CDC.

Of the 4269 cases, 1459 (34%) were reported as West Nile meningitis or encephalitis (neuroinvasive disease), 2616 (61%) were reported as West Nile fever (milder disease), and 194 (5%) were clinically unspecified at this time. Please refer to [state health department web sites](#) for further details regarding state case totals.

Note: The high proportion of neuroinvasive disease cases among reported cases of West Nile virus disease reflects surveillance reporting bias. Serious cases are more likely to be reported than mild cases. Also, the surveillance system is not designed to detect asymptomatic infections. Data from population-based surveys indicate that among all people who become infected with West Nile virus (including people with asymptomatic infections) less than 1% will develop severe neuroinvasive disease. See: Mostashari F, Bunning ML, Kitsutani PT, et al. Epidemic West Nile Encephalitis, New York, 1999: Results of a household-based seroepidemiological survey. *Lancet* 2001;358:261-264.

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2007 West Nile Virus Activity in the United States

| State | Encephalitis/ Meningitis | Fever | Other Clinical/Unspecified | Total | Fatalities |
|----------------|-----------------------------|-------------|-------------------------------|-------------|------------|
| Alabama | 17 | 7 | 0 | 24 | 3 |
| Arizona | 50 | 45 | 2 | 97 | 6 |
| Arkansas | 13 | 7 | 0 | 20 | 1 |
| California | 154 | 220 | 6 | 380 | 20 |
| Colorado | 99 | 477 | 0 | 576 | 7 |
| Connecticut | 2 | 2 | 0 | 4 | 0 |
| Delaware | 1 | 0 | 0 | 1 | 0 |
| Florida | 3 | 0 | 0 | 3 | 1 |
| Georgia | 23 | 24 | 3 | 50 | 1 |
| Idaho | 10 | 120 | 2 | 132 | 1 |
| Illinois | 57 | 26 | 18 | 101 | 4 |
| Indiana | 14 | 7 | 3 | 24 | 1 |
| Iowa | 12 | 15 | 3 | 30 | 3 |
| Kansas | 14 | 26 | 0 | 40 | 2 |
| Kentucky | 4 | 0 | 0 | 4 | 0 |
| Louisiana | 27 | 13 | 0 | 40 | 2 |
| Maryland | 6 | 3 | 1 | 10 | 0 |
| Massachusetts | 3 | 3 | 0 | 6 | 0 |
| Michigan | 14 | 1 | 2 | 17 | 4 |
| Minnesota | 44 | 57 | 0 | 101 | 2 |
| Mississippi | 50 | 86 | 0 | 136 | 4 |
| Missouri | 61 | 16 | 0 | 77 | 5 |
| Montana | 37 | 164 | 1 | 202 | 4 |
| Nebraska | 21 | 142 | 0 | 163 | 4 |
| Nevada | 2 | 6 | 4 | 12 | 1 |
| New Jersey | 1 | 0 | 0 | 1 | 0 |
| New Mexico | 39 | 21 | 0 | 60 | 3 |
| New York | 16 | 6 | 0 | 22 | 3 |
| North Carolina | 4 | 4 | 0 | 8 | 0 |
| North Dakota | 49 | 320 | 0 | 369 | 3 |
| Ohio | 13 | 9 | 1 | 23 | 3 |
| Oklahoma | 59 | 47 | 1 | 107 | 8 |
| Oregon | 7 | 19 | 0 | 26 | 0 |
| Pennsylvania | 5 | 5 | 0 | 10 | 0 |
| Rhode Island | 0 | 1 | 0 | 1 | 0 |
| South Carolina | 3 | 2 | 0 | 5 | 0 |
| South Dakota | 48 | 160 | 0 | 208 | 6 |
| Tennessee | 5 | 3 | 3 | 11 | 1 |
| Texas | 170 | 90 | 0 | 260 | 16 |
| Utah | 28 | 42 | 0 | 70 | 2 |
| Virginia | 3 | 1 | 1 | 5 | 0 |
| Wisconsin | 7 | 6 | 0 | 13 | 1 |
| Wyoming | 22 | 147 | 12 | 181 | 2 |
| Totals | 1217 | 2350 | 63 | 3630 | 124 |

West Nile encephalitis and West Nile meningitis are forms of severe disease that affect a person’s nervous system. Encephalitis refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord. [Click here for further explanation of WN meningitis and/or encephalitis.](#)

West Nile fever refers to typically less severe cases that show no evidence of neuroinvasion. WN fever is considered a notifiable disease, however the number of cases reported

(as with all diseases) may be limited by whether persons affected seek care, whether laboratory diagnosis is ordered and the extent to which cases are reported to health authorities by the diagnosing physician.

Other Clinical includes persons with clinical manifestations other than WN fever, WN encephalitis or WN meningitis, such as acute flaccid paralysis. **Clinical/Unspecified** cases are those for which sufficient clinical information was not provided.

See the **case definition** (2004) for [Neuroinvasive and Non-Neuroinvasive Domestic Arboviral Diseases](#). From the CDC Epidemiology Program Office.

Total Human Cases Reported to CDC: These numbers reflect both mild and severe human disease cases occurring between January 1, 2007 to December 31, 2007 as reported through May 20, 2008 to ArboNET by state and local health departments. ArboNET is the national, electronic surveillance system established by CDC to assist states in tracking West Nile virus and other mosquito-borne viruses. Information regarding 2007 virus/disease activity is posted when such cases are reported to CDC.

Of the 3630 cases, 1217 (34%) were reported as West Nile meningitis or encephalitis (neuroinvasive disease), 2350 (65%) were reported as West Nile fever (milder disease), and 63 (2%) were clinically unspecified at this time. Please refer to [state health department web sites](#) for further details regarding state case totals.

Note: The high proportion of neuroinvasive disease cases among reported cases of West Nile virus disease reflects surveillance reporting bias. Serious cases are more likely to be reported than mild cases. Also, the surveillance system is not designed to detect asymptomatic infections. Data from population-based surveys indicate that among all people who become infected with West Nile virus (including people with asymptomatic infections) less than 1% will develop severe neuroinvasive disease. See: Mostashari F, Bunning ML, Kitsutani PT, et al. Epidemic West Nile Encephalitis, New York, 1999: Results of a household-based seroepidemiological survey. *Lancet* 2001;358:261-264.

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Final 2008 West Nile Virus Activity in the United States

| State | Encephalitis/ Meningitis | Fever | Other Clinical/Unspecified | Total | Fatalities |
|----------------------|-----------------------------|------------|-------------------------------|-------------|------------|
| Alabama | 11 | 7 | 0 | 18 | 0 |
| Arizona | 62 | 43 | 9 | 114 | 7 |
| Arkansas | 7 | 2 | 0 | 9 | 0 |
| California | 292 | 149 | 4 | 445 | 15 |
| Colorado | 17 | 54 | 0 | 71 | 1 |
| Connecticut | 5 | 2 | 1 | 8 | 0 |
| Delaware | 0 | 0 | 1 | 1 | 0 |
| District of Columbia | 4 | 1 | 3 | 8 | 0 |
| Florida | 3 | 0 | 0 | 3 | 0 |
| Georgia | 4 | 3 | 1 | 8 | 0 |
| Idaho | 2 | 31 | 6 | 39 | 1 |
| Illinois | 12 | 4 | 4 | 20 | 1 |
| Indiana | 3 | 0 | 1 | 4 | 0 |
| Iowa | 3 | 0 | 3 | 6 | 1 |
| Kansas | 14 | 17 | 0 | 31 | 0 |
| Kentucky | 3 | 0 | 0 | 3 | 0 |
| Louisiana | 18 | 31 | 0 | 49 | 1 |
| Maryland | 6 | 7 | 1 | 14 | 0 |
| Massachusetts | 1 | 0 | 0 | 1 | 0 |
| Michigan | 11 | 4 | 2 | 17 | 0 |
| Minnesota | 2 | 8 | 0 | 10 | 0 |
| Mississippi | 22 | 43 | 0 | 65 | 2 |
| Missouri | 12 | 3 | 0 | 15 | 1 |
| Montana | 0 | 3 | 2 | 5 | 0 |
| Nebraska | 7 | 40 | 0 | 47 | 1 |
| Nevada | 9 | 5 | 2 | 16 | 0 |
| New Jersey | 6 | 4 | 0 | 10 | 2 |
| New Mexico | 5 | 3 | 0 | 8 | 0 |
| New York | 32 | 14 | 0 | 46 | 6 |
| North Carolina | 2 | 0 | 1 | 3 | 0 |
| North Dakota | 2 | 35 | 0 | 37 | 0 |
| Ohio | 14 | 1 | 0 | 15 | 1 |
| Oklahoma | 4 | 5 | 0 | 9 | 0 |
| Oregon | 3 | 13 | 0 | 16 | 0 |
| Pennsylvania | 12 | 2 | 0 | 14 | 1 |
| Rhode Island | 1 | 0 | 0 | 1 | 0 |
| South Carolina | 0 | 1 | 0 | 1 | 0 |
| South Dakota | 11 | 28 | 0 | 39 | 0 |
| Tennessee | 12 | 7 | 0 | 19 | 1 |
| Texas | 40 | 24 | 0 | 64 | 1 |
| Utah | 6 | 18 | 2 | 26 | 0 |
| Virginia | 0 | 0 | 1 | 1 | 0 |
| Washington | 2 | 1 | 0 | 3 | 0 |
| West Virginia | 1 | 0 | 0 | 1 | 0 |
| Wisconsin | 4 | 3 | 1 | 8 | 1 |
| Wyoming | 0 | 8 | 0 | 8 | 0 |
| Totals | 687 | 624 | 45 | 1356 | 44 |

West Nile encephalitis and West Nile meningitis are forms of severe disease that affect a person's nervous system. Encephalitis refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord. [Click here for further explanation of WN meningitis and/or encephalitis.](#)

West Nile fever refers to typically less severe cases that show no evidence of neuroinvasion. WN fever is considered a notifiable disease, however the number of cases reported (as with all diseases) may be limited by whether persons affected seek care, whether laboratory diagnosis is ordered and the extent to which cases are reported to health authorities by the diagnosing physician.

Other Clinical includes persons with clinical manifestations other than WN fever, WN encephalitis or WN meningitis, such as acute flaccid paralysis. **Clinical/Unspecified** cases are those for which sufficient clinical information was not provided.

See the **case definition** (2004) for [Neuroinvasive and Non-Neuroinvasive Domestic Arboviral Diseases](#). From the CDC Epidemiology Program Office.

Total Human Cases Reported to CDC: These numbers reflect both mild and severe human disease cases occurring between January 1, 2008 to December 31, 2008 as reported through April 10, 2009 to ArboNET by state and local health departments. ArboNET is the national, electronic surveillance system established by CDC to assist states in tracking West Nile virus and other mosquito-borne viruses. Information regarding 2008 virus/disease activity is posted when such cases are reported to CDC.

Of the 1356 cases, 687 (51%) were reported as West Nile meningitis or encephalitis (neuroinvasive disease), 624 (46%) were reported as West Nile fever (milder disease), and 45 (3%) were clinically unspecified at this time. Please refer to [state health department web sites](#) for further details regarding state case totals.

Note: The high proportion of neuroinvasive disease cases among reported cases of West Nile virus disease reflects surveillance reporting bias. Serious cases are more likely to be reported than mild cases. Also, the surveillance system is not designed to detect asymptomatic infections. Data from population-based surveys indicate that among all people who become infected with West Nile virus (including people with asymptomatic infections) less than 1% will develop severe neuroinvasive disease. See: Mostashari F, Bunning ML, Kitsutani PT, et al. Epidemic West Nile Encephalitis, New York, 1999: Results of a household-based seroepidemiological survey. Lancet 2001;358:261-264.

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Final 2009 West Nile Virus Activity in the United States

| State | Encephalitis/ Meningitis | Fever | Other Clinical/Unspecified | Total | Fatalities |
|----------------------|-----------------------------|------------|-------------------------------|------------|------------|
| Arizona | 12 | 8 | 0 | 20 | 0 |
| Arkansas | 6 | 0 | 0 | 6 | 1 |
| California | 63 | 45 | 4 | 112 | 4 |
| Colorado | 36 | 67 | 0 | 103 | 3 |
| District of Columbia | 2 | 0 | 0 | 2 | 0 |
| Florida | 2 | 0 | 1 | 3 | 0 |
| Georgia | 4 | 0 | 0 | 4 | 2 |
| Idaho | 5 | 26 | 7 | 38 | 2 |
| Illinois | 5 | 0 | 0 | 5 | 0 |
| Indiana | 2 | 2 | 0 | 4 | 1 |
| Iowa | 0 | 5 | 0 | 5 | 0 |
| Kansas | 4 | 9 | 0 | 13 | 0 |
| Kentucky | 3 | 0 | 0 | 3 | 0 |
| Louisiana | 10 | 11 | 0 | 21 | 0 |
| Maryland | 0 | 1 | 0 | 1 | 0 |
| Michigan | 1 | 0 | 0 | 1 | 0 |
| Minnesota | 1 | 3 | 0 | 4 | 0 |
| Mississippi | 31 | 22 | 0 | 53 | 5 |
| Missouri | 4 | 1 | 0 | 5 | 0 |
| Montana | 2 | 3 | 0 | 5 | 0 |
| Nebraska | 11 | 41 | 0 | 52 | 0 |
| Nevada | 7 | 4 | 1 | 12 | 0 |
| New Jersey | 3 | 0 | 0 | 3 | 0 |
| New Mexico | 5 | 2 | 1 | 8 | 1 |
| New York | 5 | 0 | 2 | 7 | 0 |
| North Dakota | 0 | 1 | 0 | 1 | 0 |
| Ohio | 0 | 2 | 0 | 2 | 0 |
| Oklahoma | 8 | 2 | 0 | 10 | 1 |
| Oregon | 0 | 8 | 3 | 11 | 0 |
| South Carolina | 2 | 0 | 1 | 3 | 0 |
| South Dakota | 6 | 15 | 0 | 21 | 0 |
| Tennessee | 4 | 5 | 0 | 9 | 1 |
| Texas | 93 | 22 | 0 | 115 | 9 |
| Utah | 1 | 1 | 0 | 2 | 0 |
| Virginia | 5 | 0 | 0 | 5 | 0 |
| Washington | 25 | 8 | 5 | 38 | 1 |
| Wisconsin | 1 | 0 | 0 | 1 | 0 |
| Wyoming | 4 | 8 | 0 | 12 | 1 |
| Totals | 373 | 322 | 25 | 720 | 32 |

West Nile encephalitis and West Nile meningitis are forms of severe disease that affect a person’s nervous system. Encephalitis refers to an inflammation of the brain, meningitis is an inflammation of the membrane around the brain and the spinal cord. [Click here for further explanation of WN meningitis and/or encephalitis.](#)

West Nile fever refers to typically less severe cases that show no evidence of neuroinvasion. WN fever is considered a notifiable disease, however the number of cases reported (as with all diseases) may be limited by whether persons affected seek care, whether laboratory diagnosis is ordered and the extent to which cases are reported to health authorities by the diagnosing physician.

Other Clinical includes persons with clinical manifestations other than WN fever, WN encephalitis or WN meningitis, such as acute flaccid paralysis. **Clinical/Unspecified** cases are those for which sufficient clinical information was not provided.

See the **case definition** (2004) for [Neuroinvasive and Non-Neuroinvasive Domestic Arboviral Diseases](#). From the CDC Epidemiology Program Office.

Total Human Cases Reported to CDC: These numbers reflect both mild and severe human disease cases occurring between January 1, 2009 to December 31, 2009 as reported through April 30, 2010 to ArboNET by state and local health departments. ArboNET is the national, electronic surveillance system established by CDC to assist states in tracking West Nile virus and other mosquito-borne viruses. Information regarding 2009 virus/disease activity is posted when such cases are reported to CDC.

Of the 720 cases, 373 (52%) were reported as West Nile meningitis or encephalitis (neuroinvasive disease), 322 (45%) were reported as West Nile fever (milder disease), and 25 (3%) were clinically unspecified at this time. Please refer to [state health department web sites](#) for further details regarding state case totals.

Note: The high proportion of neuroinvasive disease cases among reported cases of West Nile virus disease reflects surveillance reporting bias. Serious cases are more likely to be reported than mild cases. Also, the surveillance system is not designed to detect asymptomatic infections. Data from population-based surveys indicate that among all people who become infected with West Nile virus (including people with asymptomatic infections) less than 1% will develop severe neuroinvasive disease. See: Mostashari F, Bunning ML, Kitsutani PT, et al. Epidemic West Nile Encephalitis, New York, 1999: Results of a household-based seroepidemiological survey. *Lancet* 2001;358:261-264.

For Case Information:

[1999](#) | [2000](#) | [2001](#) | [2002](#) | [2003](#) | [2004](#) | [2005](#) | [2006](#) | [2007](#) | [2008](#) | [2009](#) | [2010](#)

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**2010 West Nile Virus Human Infections
in the United States
(Reported to CDC as of December 28, 2010)**

Human Cases Reported to CDC

| State | Neuroinvasive Disease Cases | Nonneuroinvasive Disease Cases | Total Cases | Deaths | Presumptive Viremic Donors* |
|----------------------|-----------------------------|--------------------------------|-------------|-----------|-----------------------------|
| Alabama | 1 | 2 | 3 | 0 | 0 |
| Arizona | 105 | 58 | 163 | 13 | 31 |
| Arkansas | 6 | 1 | 7 | 0 | 0 |
| California | 66 | 38 | 104 | 2 | 21 |
| Colorado | 26 | 55 | 81 | 4 | 1 |
| Connecticut | 6 | 1 | 7 | 0 | 0 |
| District of Columbia | 1 | 1 | 2 | 0 | 0 |
| Florida | 9 | 3 | 12 | 2 | 1 |
| Georgia | 4 | 9 | 13 | 0 | 1 |
| Idaho | 0 | 1 | 1 | 0 | 0 |
| Illinois | 41 | 15 | 56 | 3 | 0 |
| Indiana | 5 | 7 | 12 | 1 | 0 |
| Iowa | 2 | 4 | 6 | 0 | 1 |
| Kansas | 3 | 14 | 17 | 0 | 0 |
| Kentucky | 2 | 1 | 3 | 1 | 7 |
| Louisiana | 14 | 6 | 20 | 0 | 7 |
| Maryland | 17 | 6 | 23 | 2 | 0 |
| Massachusetts | 6 | 1 | 7 | 0 | 1 |
| Michigan | 25 | 4 | 29 | 3 | 2 |
| Minnesota | 4 | 4 | 8 | 0 | 1 |
| Mississippi | 3 | 6 | 9 | 0 | 2 |
| Missouri | 3 | 0 | 3 | 0 | 0 |
| Nebraska | 10 | 27 | 37 | 2 | 8 |
| Nevada | 0 | 2 | 2 | 0 | 0 |
| New Hampshire | 1 | 0 | 1 | 0 | 0 |
| New Jersey | 15 | 15 | 30 | 2 | 0 |
| New Mexico | 19 | 4 | 23 | 0 | 6 |
| New York | 89 | 38 | 127 | 3 | 6 |
| North Dakota | 2 | 7 | 9 | 0 | 0 |
| Ohio | 4 | 1 | 5 | 0 | 0 |
| Oklahoma | 0 | 0 | 0 | 0 | 1 |
| Pennsylvania | 21 | 9 | 30 | 0 | 1 |
| South Carolina | 1 | 0 | 1 | 0 | 0 |
| South Dakota | 4 | 16 | 20 | 0 | 0 |
| Tennessee | 2 | 2 | 4 | 0 | 1 |
| Texas | 77 | 12 | 89 | 6 | 12 |
| Utah | 1 | 1 | 2 | 0 | 3 |
| Virginia | 3 | 2 | 5 | 1 | 2 |
| Washington | 1 | 1 | 2 | 0 | 0 |
| Wisconsin | 0 | 2 | 2 | 0 | 1 |
| Wyoming | 2 | 4 | 6 | 0 | 0 |
| Totals | 601 | 380 | 981 | 45 | 117 |

Neuroinvasive disease cases, refers to severe cases of disease that affect a person’s nervous system. These include encephalitis which is an inflammation of the brain, meningitis which is an inflammation of the membrane around the brain and the spinal cord and acute flaccid paralysis which is an inflammation of the spinal cord that can cause a sudden onset of weakness in the limbs and/or breathing muscles.

[Click here for further explanation of WN meningitis and/or encephalitis.](#)
[Click here for further explanation of acute flaccid paralysis](#)

Nonneuroinvasive disease cases refers to typically less severe cases that show no evidence of neuroinvasion—primarily West Nile fever. WN fever is considered a notifiable disease, however the number of cases reported (as with all diseases) may be limited by whether persons affected seek care, whether laboratory diagnosis is ordered and the extent to which cases are reported to health authorities by the diagnosing physician.

See the case definition (2004) for [Neuroinvasive and NonNeuroinvasive Domestic Arboviral Diseases](#).

Presumptive viremic donors (PVDs) are people who had no symptoms at the time of donating blood (people with symptoms are deferred from donating) through a blood collection agency, but whose blood tested positive in preliminary tests when screened for the presence of West Nile virus. Some PVDs do go on to develop symptoms after donation, at which point they would be included in the count of human disease cases by their state.

Total Human Cases Reported to CDC: These numbers reflect both mild and severe confirmed and probable human disease cases occurring between January 1, 2010 to December 31, 2010 as reported through December 28, 2010 to ArboNET by state and local health departments. ArboNET is the national, electronic surveillance system established by CDC to assist states in tracking West Nile virus and other mosquito-borne viruses. Information regarding 2010 virus/disease activity is posted when such cases are reported to CDC.

Of the 981 WNV cases, 601 (61%) were reported as a neuroinvasive disease cases, and 380 (39%) as nonneuroinvasive disease cases. One hundred and seventeen presumptive viremic donors have been reported at this time. Please refer to [state health department web sites](#) for further details regarding state case totals.

Note: The high proportion of neuroinvasive disease cases among reported cases of West Nile virus disease reflects surveillance reporting bias. Serious cases are more likely to be reported than mild cases. Also, the surveillance system is not designed to detect asymptomatic infections. Data from population-based surveys indicate that among all people who become infected with West Nile virus (including people with asymptomatic infections) less than 1% will develop severe neuroinvasive disease. See: Mostashari F, Bunning ML, Kitsutani PT, et al. Epidemic West Nile Encephalitis, New York, 1999: Results of a household-based seroseroepidemiological survey. Lancet 2001;358:261-264.

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