

Wyoming West Nile Virus Surveillance Summary, 2014

The West Nile Virus Surveillance Summary, 2014, contains data gathered from multiple sources through both required and volunteer based reporting methods. Data collection for the year 2014 began on January 1, 2014. Human infection data is gathered through mandatory reporting by physicians, and laboratories of infectious diseases on the Reportable Disease and Conditions list (State Statute § 35-4-107). Veterinary data (i.e. equine infections) is gathered through mandatory reporting by veterinary laboratories and veterinarians to the Wyoming State Veterinarian within the Wyoming Livestock Board, who voluntarily passed the information to the Wyoming Public Health Veterinarian. Avian mortality data is gathered through the volunteer reporting by Wyoming Fish and Game, and the Wyoming Office of the U.S. Bureau of Land Management. Data on positive mosquito pools and total pools tested is gathered through the volunteer reporting of local city/county weed and pest management agencies, and local city/county public health environmental services divisions. Census data for the calculation of incidence rates in this document are provided by the U.S. Census Bureau, Population Division. The standard population used for calculating age-adjusted incidence, was the U.S. population estimates from the 2010 Census. This summary is divided into two sections: Statewide and County Specific descriptive statistics.

Statewide Descriptive Statistics

Table 1. Demographic characteristics of human West Nile Virus (WNV) cases in Wyoming, 2014 by manifestation: all infections, West Nile Fever (WNF) or West Nile Neuroinvasive Disease (WNND).

| | All Human WNV Infections | WNND | WNF |
|--|---------------------------------|-------------|------------|
| Total Cases (n) | 5 | 0 | 5 |
| Mean age (years) | 64.2 | - | 64.2 |
| Median age (years) | 75 | - | 75 |
| Age Range (years) | 39 - 77 | - | 39 - 77 |
| Female (percent of cases) | 4 (80%) | - | 4 (80%) |
| Male (percent of cases) | 1 (20%) | - | 1 (20%) |
| Race/Ethnicity | | | |
| White, non-Hispanic (percent of cases) | 5 (100%) | - | 5 (100%) |
| Hispanic (percent of cases) | 0 (0%) | - | 0 (0%) |
| American Indian / Alaskan Native (percent of cases) | 0 (0%) | - | 0 (0%) |

Table 2. Hospitalizations and associated fatality of human West Nile Virus (WNV) cases in Wyoming, 2014 by manifestation: all infections, West Nile Fever (WNF) or West Nile Neuroinvasive Disease (WNND).

| | All Human WNV Infections | WNND | WNF |
|--|--------------------------|------|---------|
| Total Cases (n) | 5 | 0 | 5 |
| Hospitalized (percent of cases) | 3 (60%) | - | 3 (60%) |
| WNV Associated Fatality (percent of cases) | 0 (0%) | - | 0 (0%) |

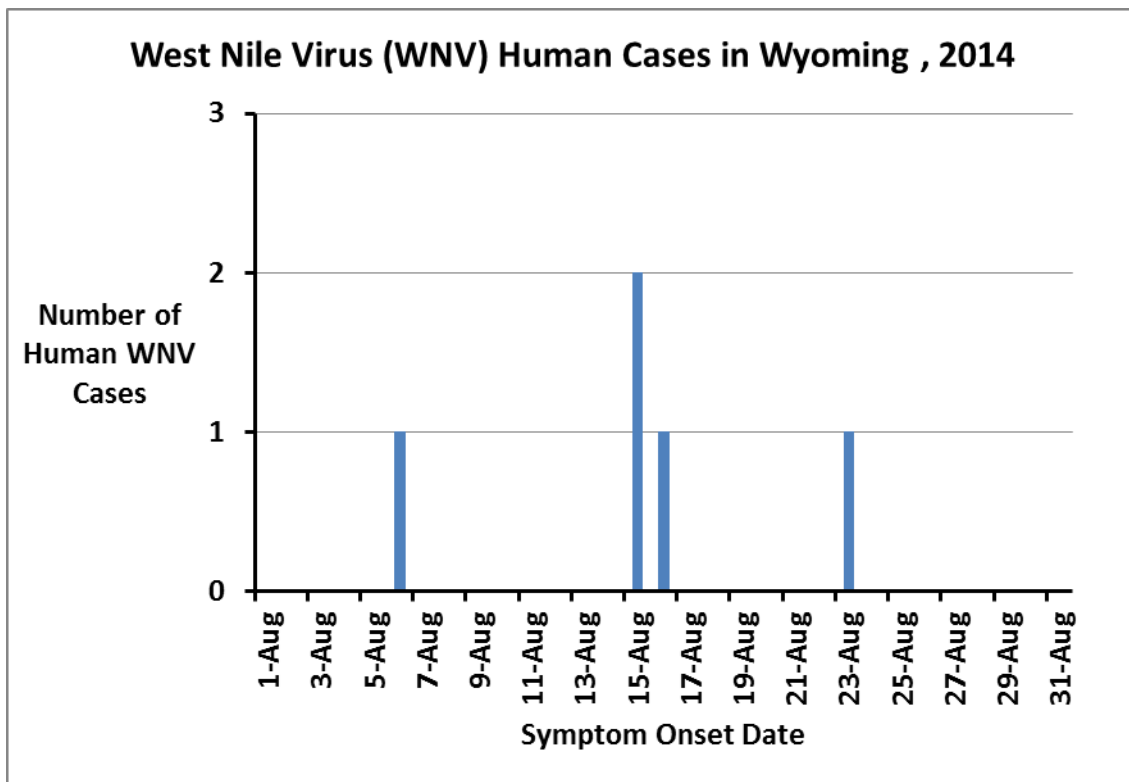


Figure 4. The number of human West Nile Virus (WNV) cases by date symptoms began.

First date of symptom onset for any type of WNV infection (fever or neuroinvasive) was August 6, 2014. Last date of symptom onset for any type of WNV infection (fever or neuroinvasive) was August 23, 2014.

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County Specific Descriptive Statistics

Table 6. West Nile Virus (WNV) activity by county in Wyoming, 2014. Presumptive viremic donor (PVD) is a person whom tested positive for West Nile Virus upon blood donor screening. PVDs are usually asymptomatic, are not included in human case counts, and are another indication of virus activity in an area. Counties not listed did not report any West Nile Virus infections or surveillance activities.

| County | West Nile | West Nile | Human | Presumptive | Equine | Positive | Mosquito |
|--------------|-------------|-----------------------------|-------------------|----------------|--------|-------------|----------|
| | Fever Cases | Neuroinvasive Disease Cases | WNV Case Fatality | Viremic Donors | | Avian Cases | |
| Albany | 0 | 0 | 0 | 0 | 0 | 7 | 110 |
| Converse | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Fremont | 0 | 0 | 0 | 0 | 0 | 1 | 89 |
| Goshen | 1 | 0 | 0 | 0 | 0 | 4 | 22 |
| Hot Springs | 0 | 0 | 0 | 0 | 0 | 0 | 10* |
| Natrona | 1 | 0 | 0 | 0 | 0 | 0 | 2* |
| Niobrara | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Platte | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sheridan | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| Uinta | 0 | 0 | 0 | 0 | 0 | 0 | 95 |
| Weston | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 5 | 0 | 0 | 0 | 4 | 11 | 328 |

*Indicates these tests were performed by Fremont County Weed and Pest

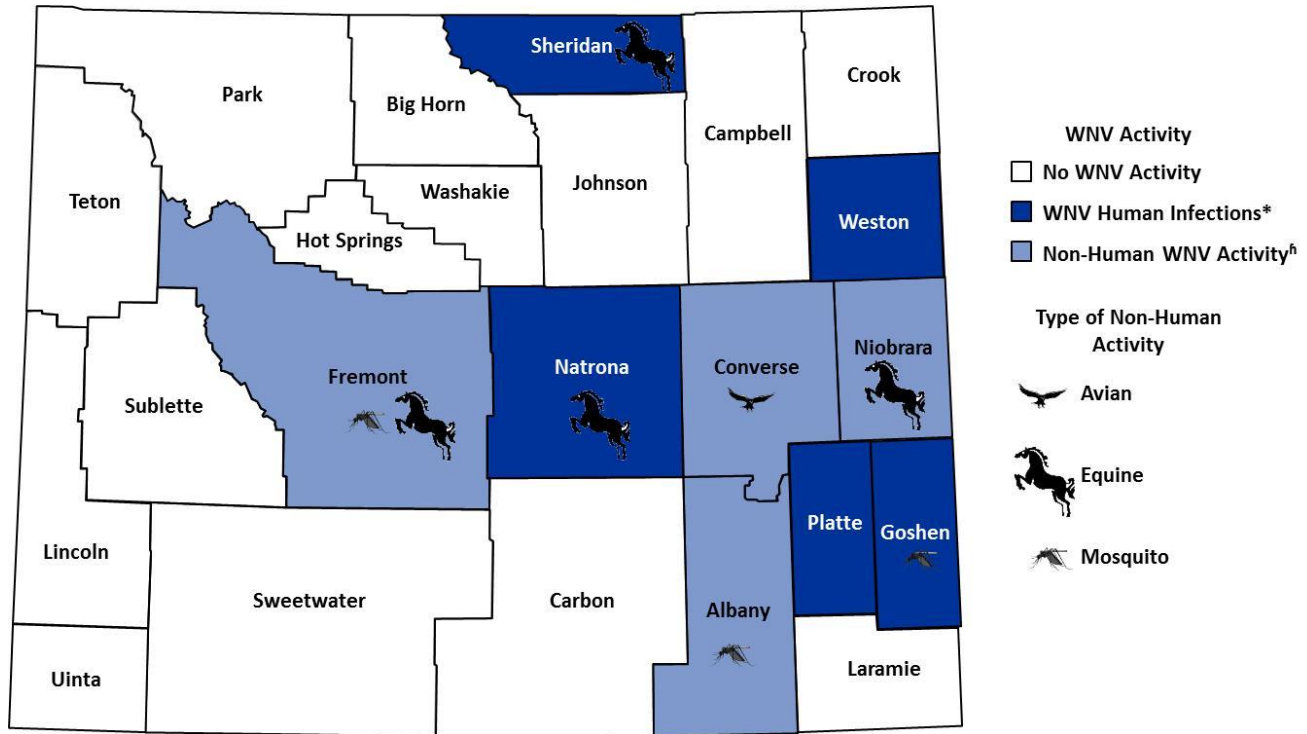


Figure 6. West Nile Virus (WNV) activity by type and county in Wyoming, 2014. Symbols used for non-human activity types do not represent the number of animals or positive mosquito pools reported in corresponding counties.

For questions, comments or to report West Nile Virus activity, please contact Katie Bryan, Surveillance Epidemiologist (307) 777-5522 or katie.bryan@wyo.gov

