

West Nile Virus & St. Louis Encephalitis End of Year Report, 2023

West Nile virus (WNV) arrived in Arizona in 2003 and is now endemic in Maricopa County. St. Louis encephalitis virus (SLE) is a rare mosquito-borne disease in Maricopa County. Maricopa County Department of Public Health Division of Epidemiology and Informatics collaborates with the Maricopa County Environmental Services Department Vector Control Division to identify and monitor areas of WNV and SLE activity. This report describes trends in human infections during 2023.

Year Total*	Clinical Syndrome	Hospitalized	Deaths				Sex at Birth M/F	Median Age (IQR)	Race & Ethnicity
WNV 72**	Nonneuroinvasive	14	11 (all encephalitis)				40/32	65 (58-75)	<i>Race</i> White 53 Black/African American <5 Two or more races <5 Some Other Race alone <5 Unknown 13 <i>Ethnicity</i> Not Hispanic or Latino 46 Hispanic or Latino 9 Unknown 17
	Neuroinvasive Encephalitis Meningitis or Not specified	58 48 10	Nonneuroinvasive <5 Neuroinvasive 56	Median Age† (IQR) 80 (66-84)	Sex at Birth M/F */ <5	Race White * Black/African American <5 Unknown 1			

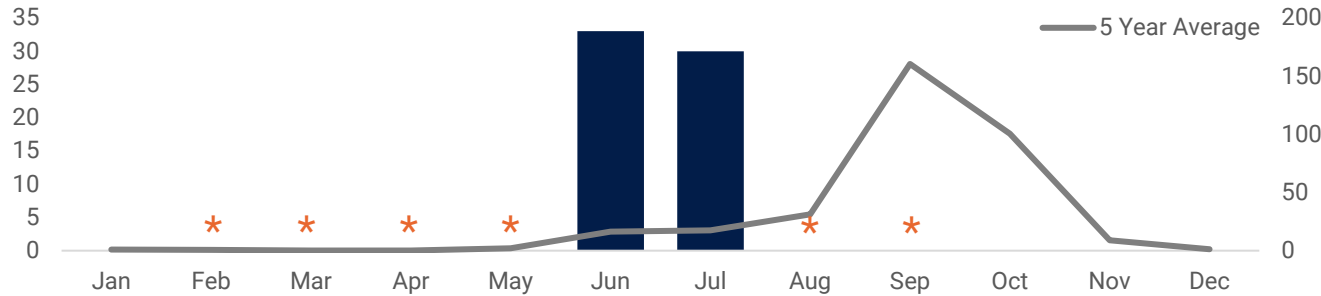
There were no SLE reports in 2023.

*Cases are counted in the year in which they are reported to Public Health.

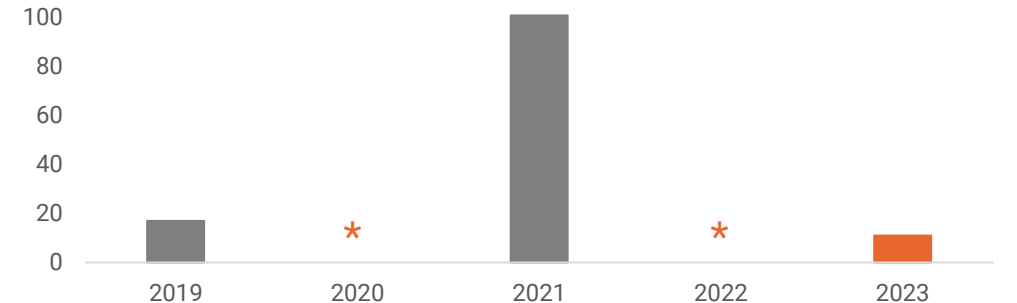
**WNV viremic donors who did not become symptomatic (n=5) and those who did not have fever or neurological illness (n<5) are not included in year total.

†The difference in the mean age of WNV survivors (65 yrs) vs deaths (73 yrs) was not statistically significant (α=0.05).

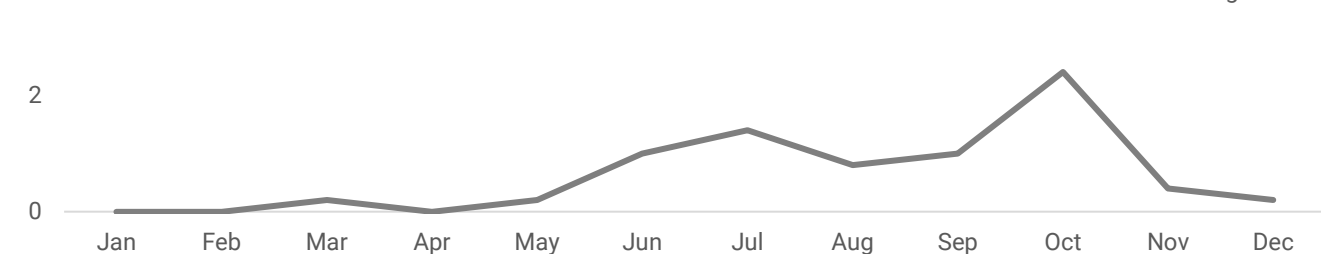
Human Infections of WNV by Month Onset



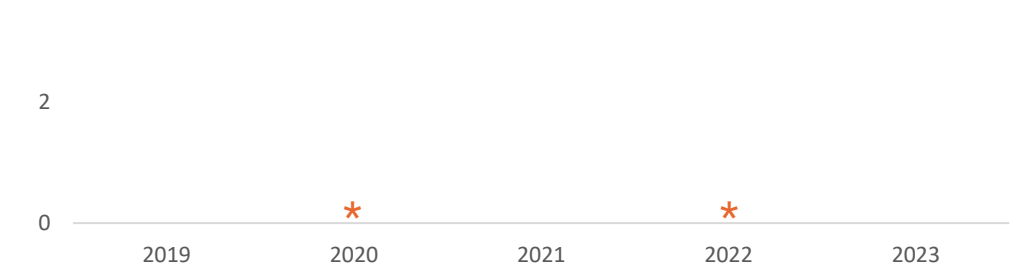
WNV Deaths 2019–2023



Human Infections of SLE by Month Onset



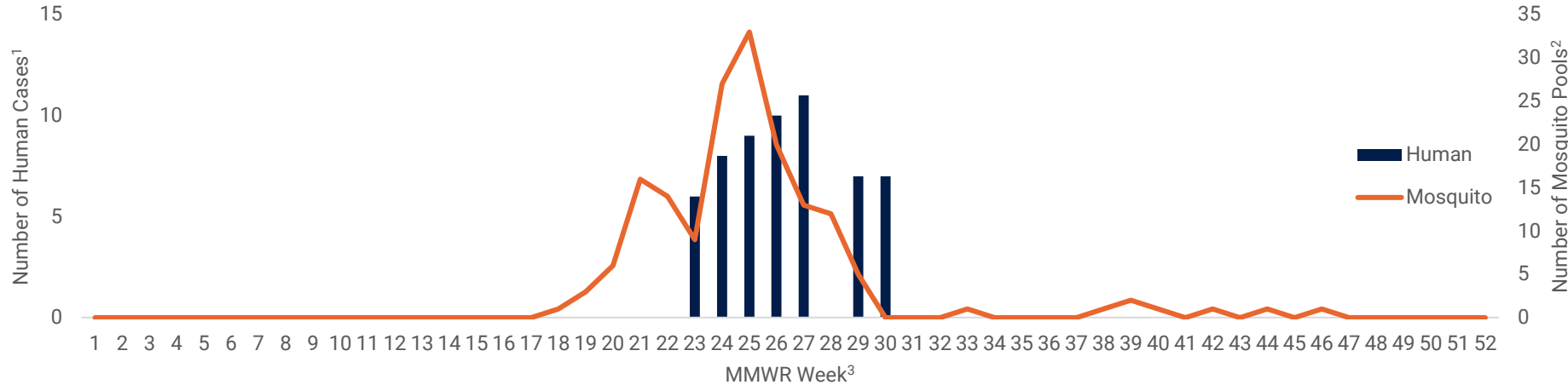
SLE Deaths 2019–2023



*Data are suppressed to prevent identification of cases due to small number (< 5) of cases

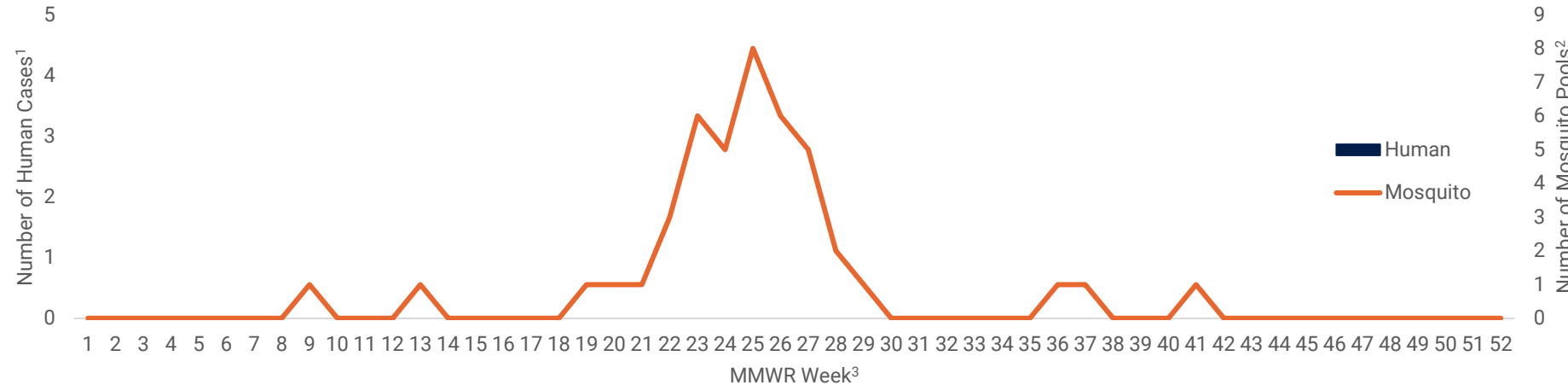
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Human Infections of WNV^{1,3,*} and WNV Positive Mosquito Pools² by MMWR Week



*Data are suppressed to prevent identification of cases due to small number (< 5) of cases

Human Infections of SLE^{1,3,*} and SLE Positive Mosquito Pools² by MMWR Week



¹ A human case is an individual infected with WNV or SLE and with a clinically compatible illness.

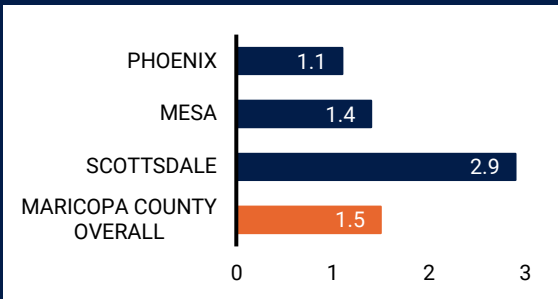
² Mosquito pools are a collection of mosquitoes collected by MCESD from a county trap that tested positive for WNV or SLE.

³ Human data are based on date of symptom onset; mosquito data are based on date of mosquito collection.



Rates of Human Illness per 100,000 Population Maricopa County Overall Rate and Cities[§] with Highest Rates

WNV



SLE Maricopa County Overall 0.0

[§]Rates for cities with ≥ 100,000 populations and case counts >4 shown.