

The West Nile Seasonal

How does 2017 look?

In the early season there are a number of pieces of evidence of potential WNV activity in the coming year, and here we summarize everything we know so far. The last column of the table below is the most important: if we only had this piece of information, would 2017 look like a good (low WNV) or bad (high WNV) year?

Red means this piece of evidence implies that 2017 will be in the upper 1/3 of all years on record.

Blue means that this piece of evidence puts 2017 in the lowest 1/3 of all years on record.

Yellow means an average year, but this still means a substantial number of WNV cases.

Type of evidence:	It's a bad sign if:	For 2017:	What does this mean for WNV in 2017?
first human case	much earlier than usual	almost exactly average	average risk
first positive mosquito pool	much earlier than usual	almost exactly average	average risk
mosquito infection rate	much higher than usual	not enough data yet	unknown
temperatures late last year (Oct-Dec)	much warmer than usual	slightly colder than usual	slightly lower than average risk
temperatures early this year (Jan-Mar)	much warmer than usual	much warmer than usual	higher than average risk
humidity early this year (Jan-Mar)	much more humid than usual	much more humid than usual	higher than average risk
three month temperature forecast (Jul-Sep)	much warmer than usual	warmer than usual	higher than average risk

We conclude that 2017 will be an average to above-average year for human WNV in SD. We do not expect as many cases as we had in 2016, but we expect to see 56 to 111 cases in SD in 2017, with 83 cases most likely. Public health and mosquito control agencies should expect to see transmission of WNV and should be planning to implement larviciding and adult mosquito control.

This is an early estimate. Our estimate will improve when there is enough data to estimate the mosquito infection rate, and we are just now beginning to receive that data from counties and cities.