

The West Nile Seasonal

How does 2017 look?

Predictions for statewide risk in 2017, made on July 31st, are displayed below in Figure 1. Currently, we estimate that 58 cases are most likely for the year. This is just slightly down the previous week's estimate of 63 cases, and is the same as our estimate made two weeks ago.

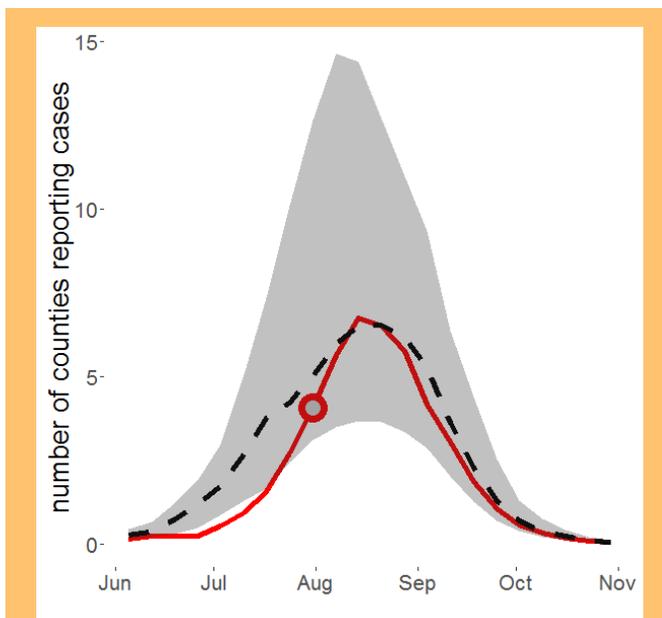


Figure 1: Estimated risk for 2017 (red), with average risk in other years (dashed) and 50% CI for historical risk (grey). Week of July 31 circled.

The stability of estimates means that no new weather or mosquito data have been especially surprising.

Statewide humidity has risen to more normal levels for this point in the year, but [drought still prevails](#). It is still possible that weather in August will drive above-average transmission, but for the moment all data indicate the rest of the year will be average.

We still suspect that 2017 will be an average year for WNV in SD overall, with substantial disease transmission. It should be remembered that only around 1 in 5 of humans infected with WNV show symptoms.

Even if everyone who showed symptoms was diagnosed, our current estimate of cases would mean that there would be at least 300 undiagnosed cases for 2017. Realistically, hundreds of South Dakotans will contract the virus this year.

We continue to urge mosquito control, collection, and testing, especially now that we have reached the peak WNV month of August. Education, especially about personal protection during outdoor and nighttime events, is essential.

How are the mosquitoes?

As of July 31st, 28 positive pools have been reported out of 1461 tested, at a rate of 1.9% pools infected. This is only slightly up from last week's 1.7% positive, and we expect that the rate might stabilize or even begin to fall next week.

Historically, we have seen the infection rate continuing to rise into late August, and it would be good news for human risk if the WNV system in SD has already begun to slow down. A late year like 2012 is still possible, but is becoming less likely as the season progresses and no surprises appear in the mosquito data.

We emphasize, however, that transmission can still occur and that dozens of cases will likely still be reported this year. The virus is certainly present in the environment, and we caution that an average-risk year is not a safe year.

Five counties have now reported positive pools, with Minnehaha reporting its first. Minnehaha finds its first positive on average around July 3rd - this year's first positive was three weeks later than usual. This is not for a lack of testing; more than 240 pools have been tested, and it appears mosquito infections are genuinely rare in the area this year. We note, however, that Brown County is still a hotspot for mosquito infections with 4% of pools positive.