West Nile virus forecast model submission form
Email completed form to vbd-predict@cdc.gov

Team name
Woodwork Effect

Team leader

Name	Institution	Email
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Other team members

Name	Institution	Email

Model description
Provide a brief summary of the model methods with sufficient detail for another modeler to understand the approach being applied. If multiple models are used, describe each model and how they were combined.

This is a hierarchical generalized additive model that uses spatio-temporal smooths and county-level varying effects to extrapolate potential WNV cases in 2020, simply based off previous trends. County populations are used as an offset.

The model assumes a negative-binomial likelihood, with the shape parameter having county-level varying effects.

Variables
List each variable used and its temporal relationship to the forecast. If multiple models are used, specify which enter into each model.

1. Latitude
2. Longitude
3. Population (as offset)
4.
5.
6.
7.
8.
9.
10.

Computational resources

Describe the programming languages and software tools that were used to write and execute the forecasts.

R, with the brms package used to write and fit Stan model

Publications

Note whether the model was derived from previously published work and, if so, provide references.

N/A

Participation agreement

By submitting these forecasts, the team agrees to abide by the project rules and data use agreements.

Team lead name	Date
Franz Fuchs	4/30/2020