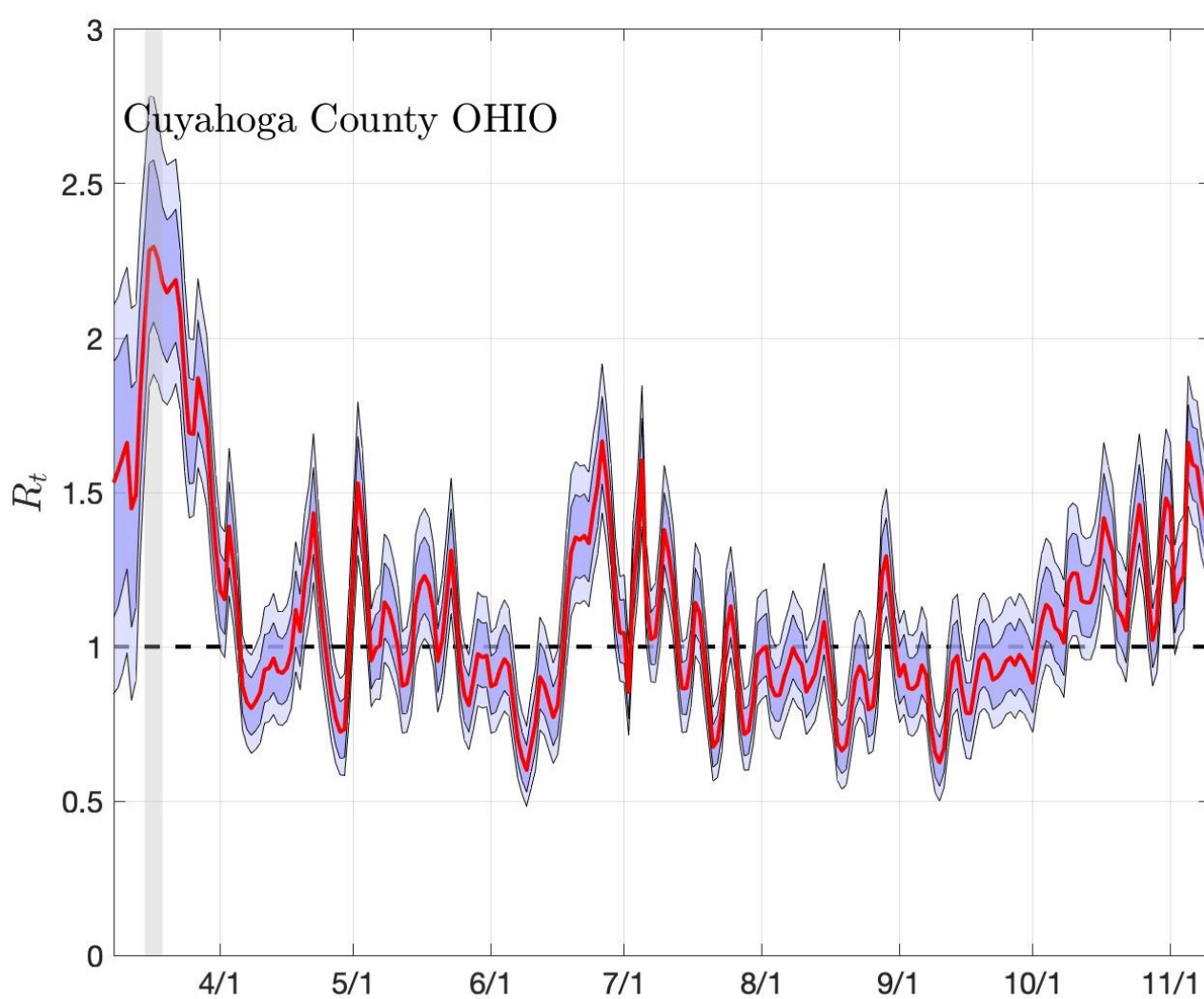


Outputs Explained

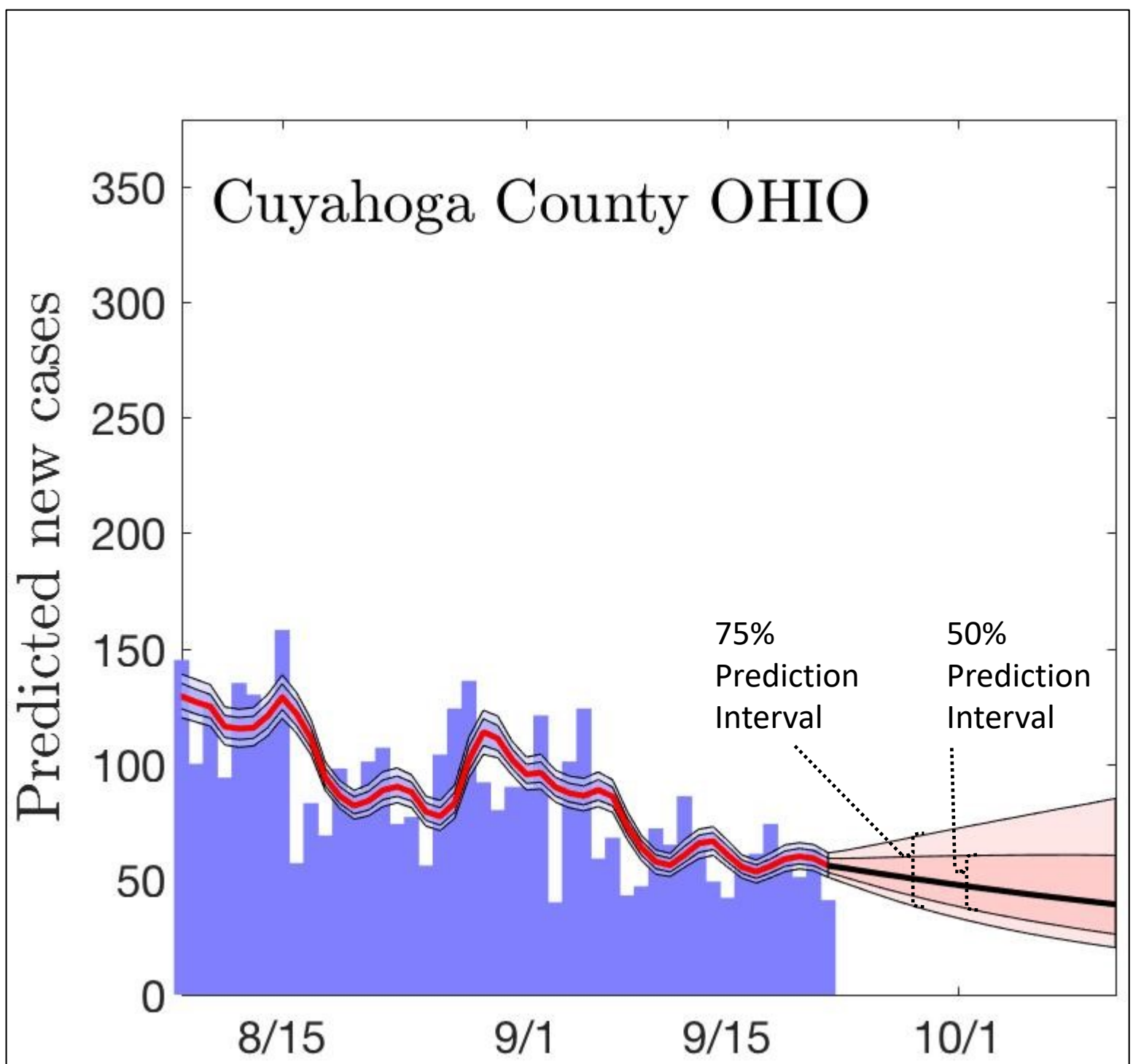
Effective Reproduction Number (R_t)



The above is a typical plot of the effective reproduction number (R_t) over time. R_t represents the average number of people who will be infected by a single infected person. Assuming that the infectiveness of the virus itself does not change, R_t reflects the amount of person-to-person contact in the population as well as any acquired immunity among those who have already been exposed to the virus. An R_t greater than 1.0 indicates that the number of new cases is likely to increase, while a value below 1.0 suggests that cases will likely decrease. The darker shade marks the 50% region of credibility, the lighter shade the 75% credibility region. The dashed line marks $R_t = 1.0$.

Outputs Explained

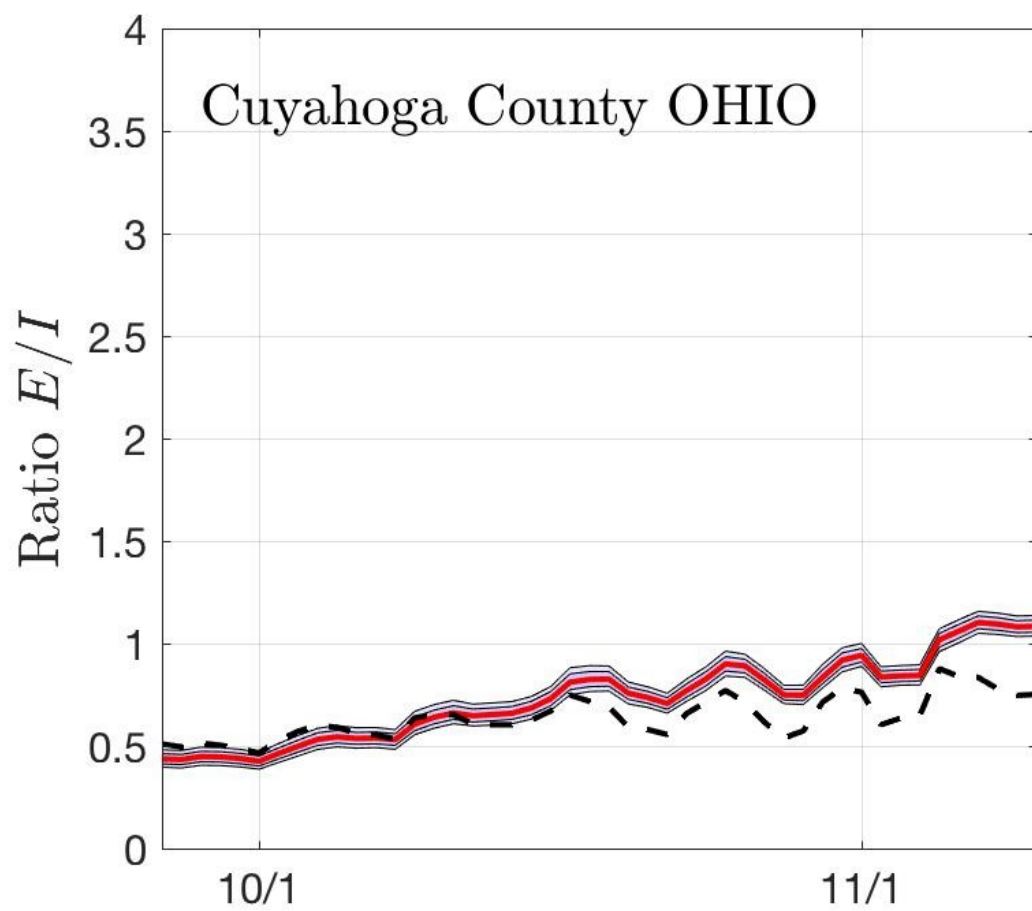
Projected Incidence



The above figure is an example of projected incidence for a single county. The columns correspond to actual daily case counts according to USAFacts [LINK TO <https://usafacts.org/issues/coronavirus/>]. To the right of the column, the bold central line represents projections of case counts over an approximately 18-day period. The darker and lighter shaded regions represent 50% and 75% prediction envelopes, respectively. Under an assumption that recent patterns in social contact continue, the actual case counts are expected to fall into these zones with a 50% and 75% probability, respectively. Like a weather forecast, predictions are most accurate in the near term. Special events that change contact patterns—like elections, holidays, or new restrictions—may contribute to discrepancies between the predictions and what will actually happen.

Outputs Explained

Asymptomatic to Symptomatic Ratio



The above is a typical plot representing the estimated ratio of asymptomatic to symptomatic cases (referred to as “E/I ratio” based on conventional mathematical notation) over time. The darker shade marks the 50% region of credibility, the lighter shade the 75% credibility region. A ratio higher than 0.5 indicates an increased number of asymptomatic spreaders. Higher values of the ratio are associated with increased transmission and an especially acute need for hand hygiene, mask wearing, social distancing and other mitigation measures. The dashed curve corresponds to slow equilibrium spread. Typically, a divergence of the two curves suggests the beginning of a sharp increase in the number of infections.