Wastewater, Model Work

`Marlin derived from work by Brian Yandell

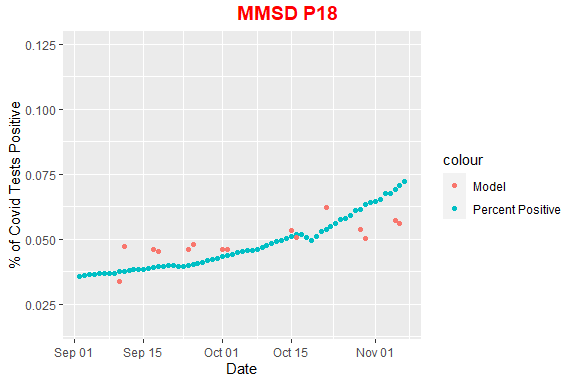
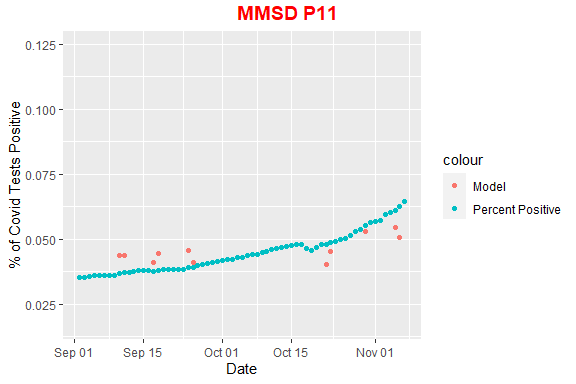
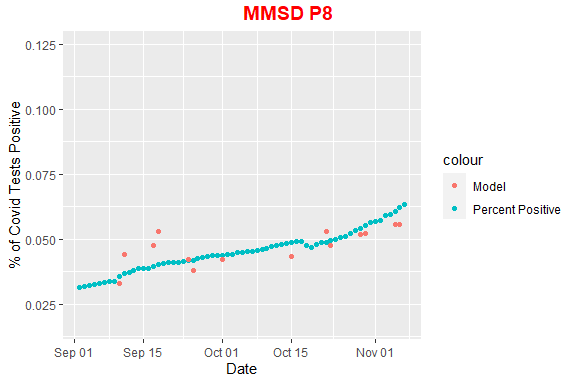
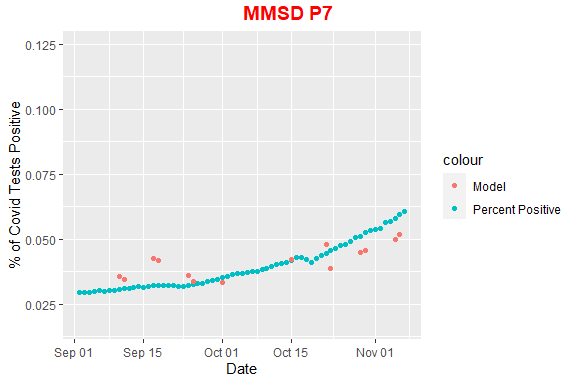
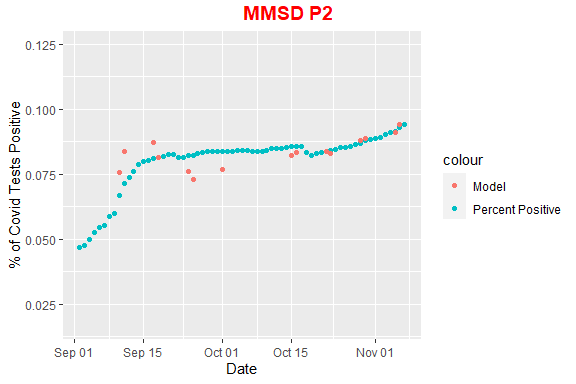
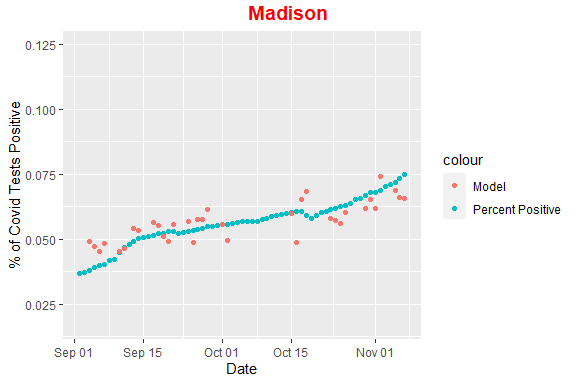
The code was derived from work by the DSI. This analysis seeks to model % of tests positive using wastewater Data. This model has logical reasons to be predictive but only finds moderate success when broken down by collection site. Particularly it consistently underpredicts the % positive rate in the P2 district.  
The Original R code file can be found in the [pandemic github repository](https://github.com/UW-Madison-DataScience/pandemic/blob/master/wastewater.Rmd).  
The Code for this R File can be found in the [Marlin Lee waste Water Work](https://github.com/MarlinRLee/Covid-Waste-Water-Exploration/blob/main/general%20model%20finding.Rmd)

#Conductivity, TSS, pH, Total\_Flow, N1, N2, AVG, PMMoV, Pct\_BCoV, TSS (mg/L)

## [1] "Time shifted -18 Days"

## [1] "R^2: 0.843806254382299"

##   
## Call:  
## lm(formula = roll ~ log(N2) + log(N1) + log(PMMoV) + Site + Total\_Flow,   
## data = Inner)  
##   
## Coefficients:  
## (Intercept) log(N2) log(N1) log(PMMoV) SiteMMSD P11   
## 0.2279812 -0.0002572 0.0049083 -0.0055657 -0.1066759   
## SiteMMSD P18 SiteMMSD P2 SiteMMSD P7 SiteMMSD P8 Total\_Flow   
## -0.0947335 -0.0773955 -0.1261827 -0.1149983 -0.0032380



##   
## Pearson's product-moment correlation  
##   
## data: AdjustedData$roll and AdjustedData$fitted  
## t = 23.703, df = 104, p-value < 2.2e-16  
## alternative hypothesis: true correlation is not equal to 0  
## 95 percent confidence interval:  
## 0.8824645 0.9439417  
## sample estimates:  
## cor   
## 0.9185893