

Supplementary Materials for “Timeliness of provisional United States mortality data releases during the COVID-19 pandemic: delays associated with electronic death registration system and weekly mortality”

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Table S1: Poisson regression to predict delay in mortality reporting with varying intercept by state (n=1196 observations of 52 jurisdictions) using correlation structure of order (p=2, q=2).

	IRR	95% CI	p
Intercept	4.14	(3.67, 4.66)	<0.001
Weekly deaths per 10 ⁸	1.11	(1.08, 1.13)	<0.001
Electronic death registration system			
Full adoption	Ref.		
Partial adoption	0.90	(0.70, 1.14)	0.4
No adoption	1.92	(1.36, 2.69)	<0.001

IRR = incidence rate ratio, exponentiated coefficients of Poisson regression
 95% CI = 95 percent confidence interval

Table S2: Poisson regression to predict delay in mortality reporting with varying intercept by state (n=1196 observations of 52 jurisdictions) .

	IRR	95% CI	p
Intercept	3.82	(3.33, 4.39)	<0.001
Weekly deaths per 10 ⁸	1.14	(1.08, 1.20)	<0.001
Electronic death registration system			
Any adoption (Full or partial)	Ref.		
No adoption	1.86	(1.31, 2.64)	<0.001

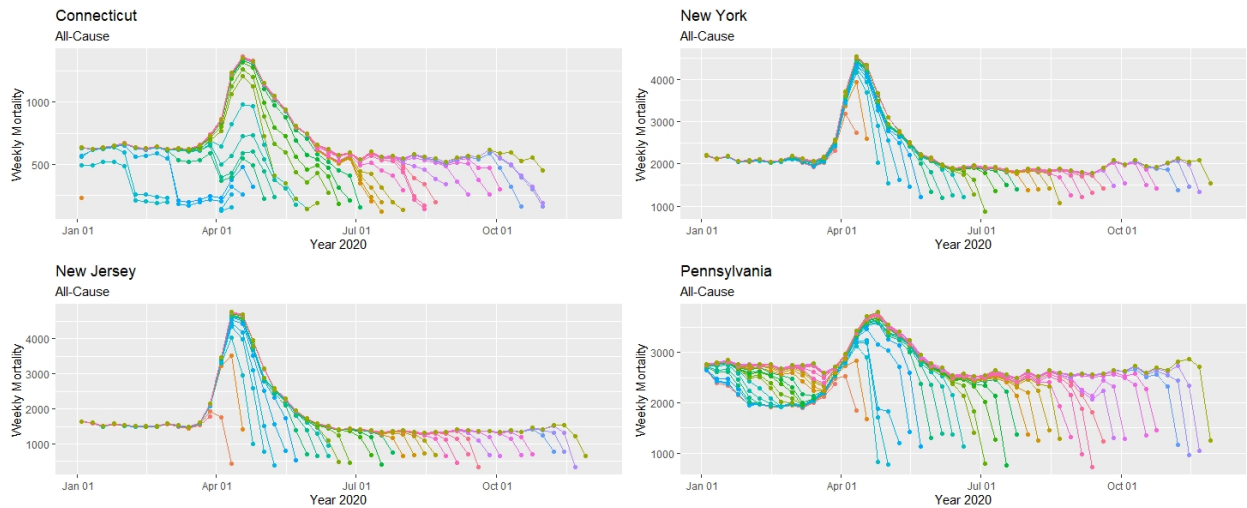
IRR = incidence rate ratio, exponentiated coefficients of Poisson regression
 95% CI = 95 percent confidence interval

Table S3: Poisson regression to predict delay in mortality reporting with varying intercept by state (n=1196 observations of 52 jurisdictions) using log deaths per log million population.

	IRR	95% CI	p
Intercept	1.34	(0.62, 1.07)	0.5
Log weekly deaths per log million population	22.4	(4.02, 136.0)	<0.001
Electronic death registration system			
Full adoption	Ref.		
Partial adoption	0.90	(0.62, 1.07)	0.1
No adoption	1.92	(1.33, 2.79)	<0.001

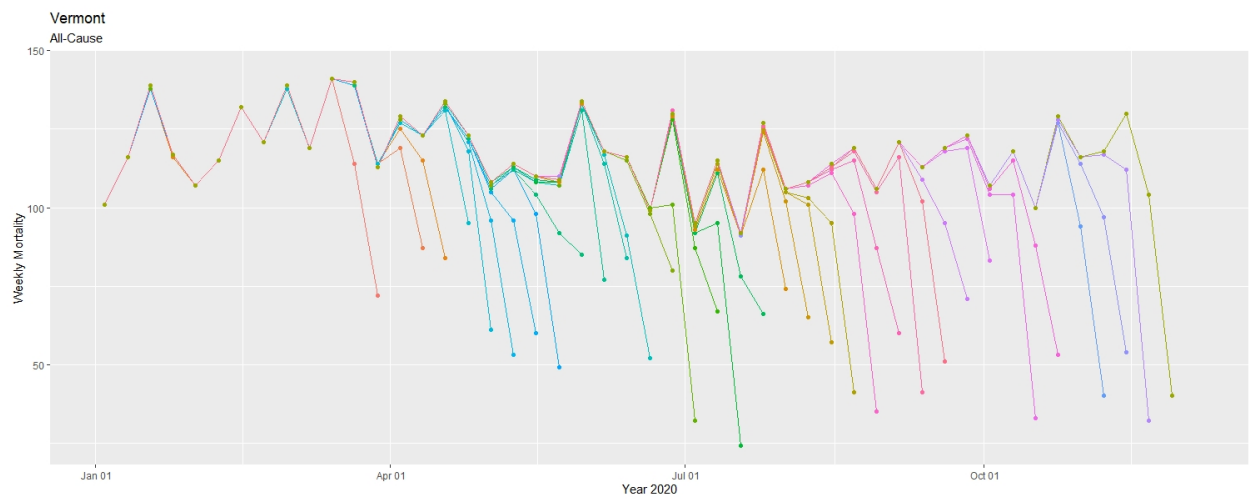
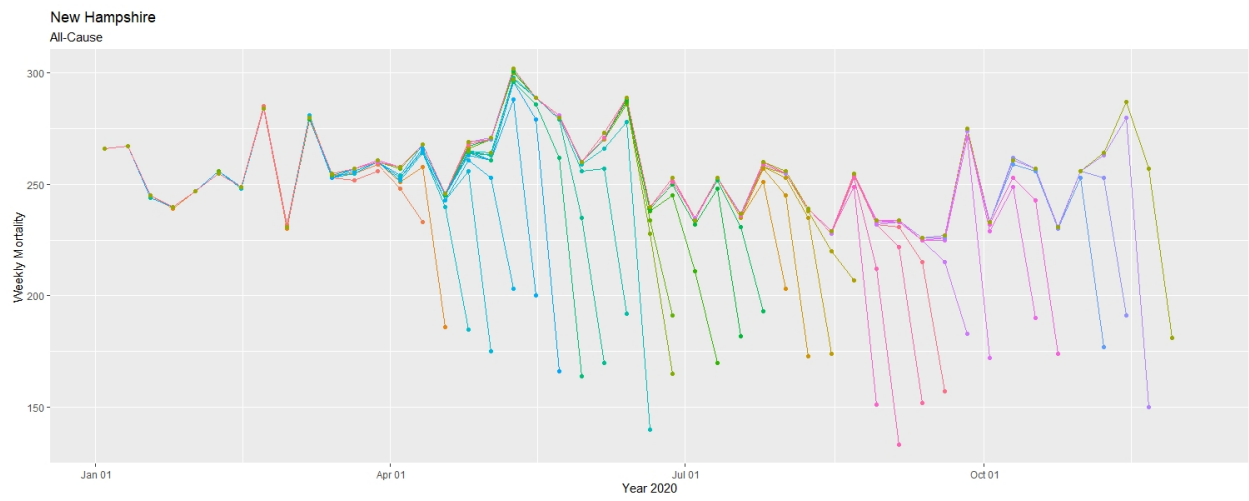
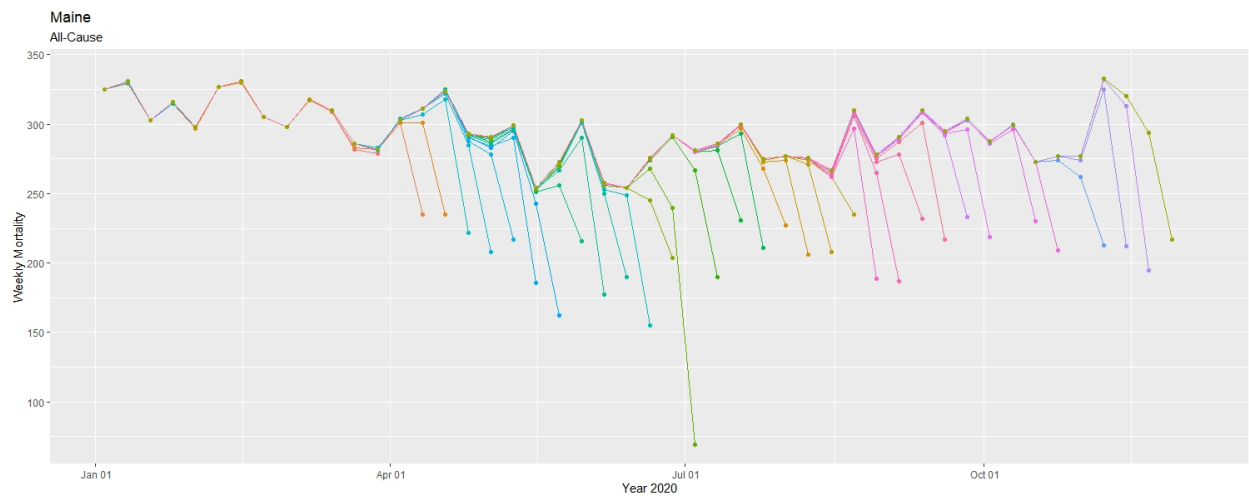
IRR = incidence rate ratio, exponentiated coefficients of Poisson regression
 95% CI = 95 percent confidence interval

Figure S1: Spaghetti plot of weekly releases of all-cause mortality for four states in the same region: Connecticut reports deaths 4.8 weeks slower than average, and New York State (minus New York City), New Jersey, and Pennsylvania report deaths 2.5, 1.6, and 1.3 weeks faster than average.

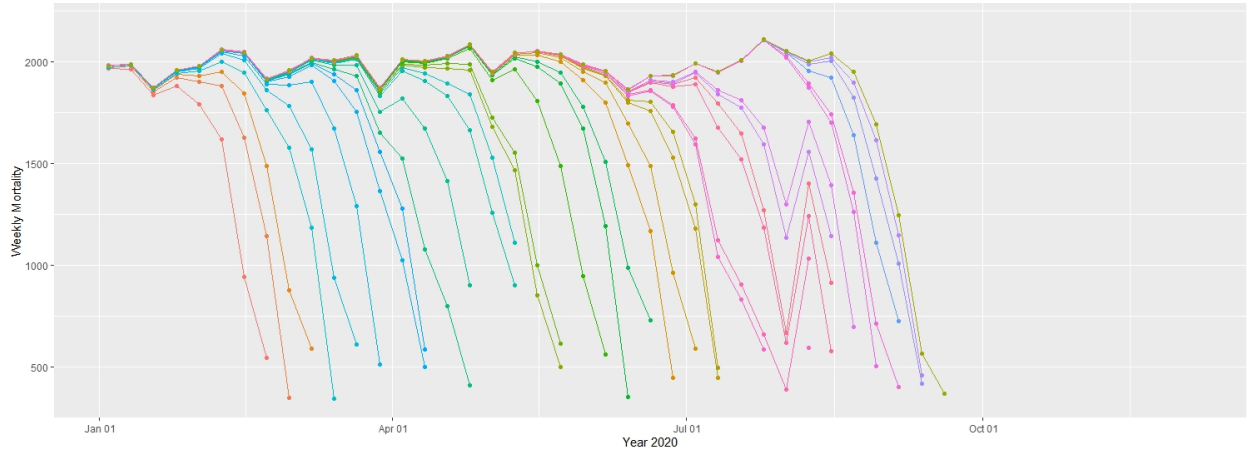


Each data point represents a provisional mortality count for that date. Each color line represents each of the 35 data releases between April 17, 2020 and December 4, 2020 in chromatic order; the chromatic order is used instead of a legend for each of the 35 colors.

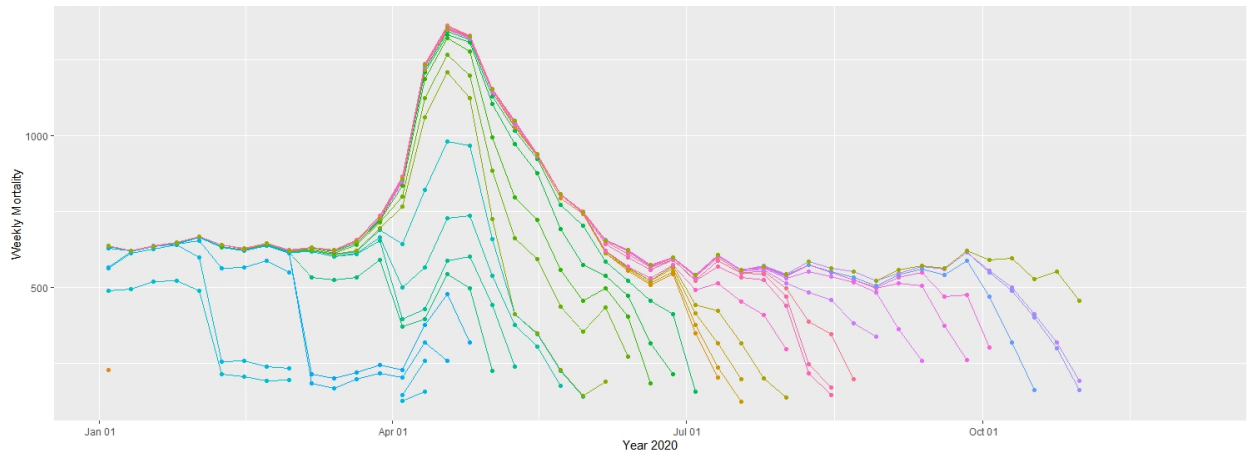
Figure S2: Spaghetti plot of weekly releases of all-cause mortality for the three fastest states and three slowest states. Each data point represents a provisional mortality count for that date. Each color line represents each of the 35 data releases between April 17, 2020 and December 4, 2020 in chromatic order; the chromatic order is used instead of a legend for each of the 35 colors.



North Carolina
All-Cause



Connecticut
All-Cause



Alaska
All-Cause

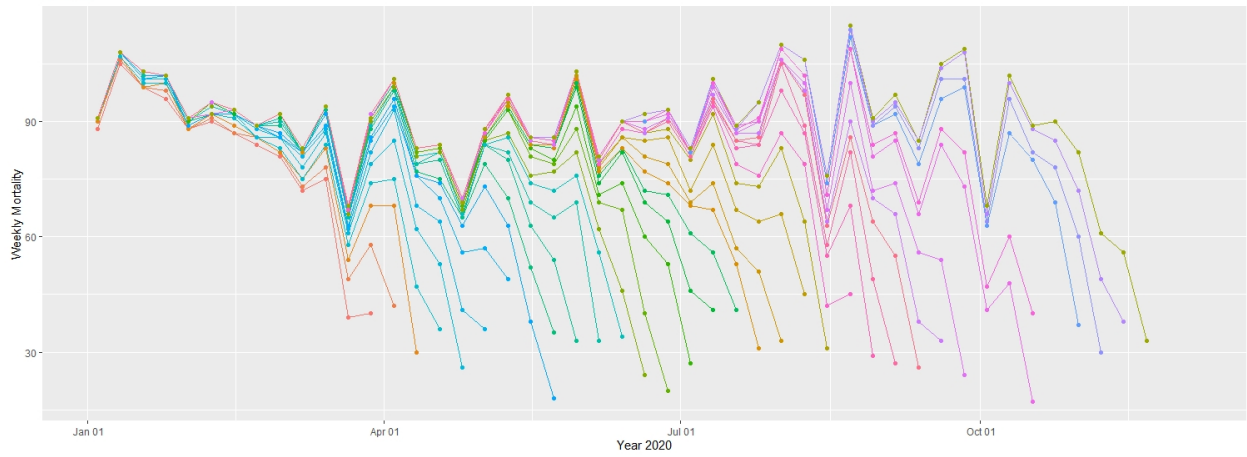


Figure S3: Weeks until all-cause mortality counts are complete for April 3-September 5, 2020, adjusted for deaths per population. The red line shows the mean delay.

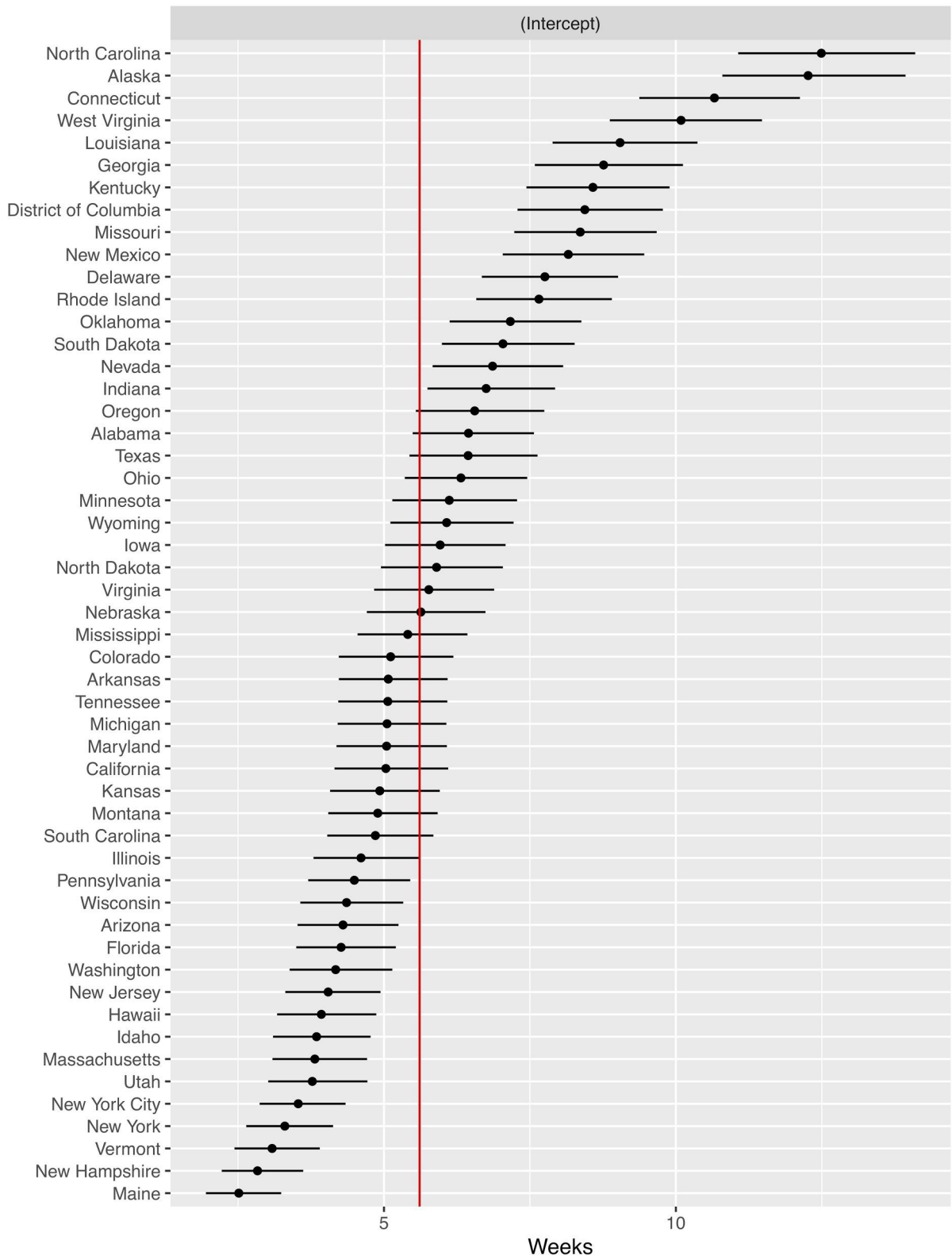
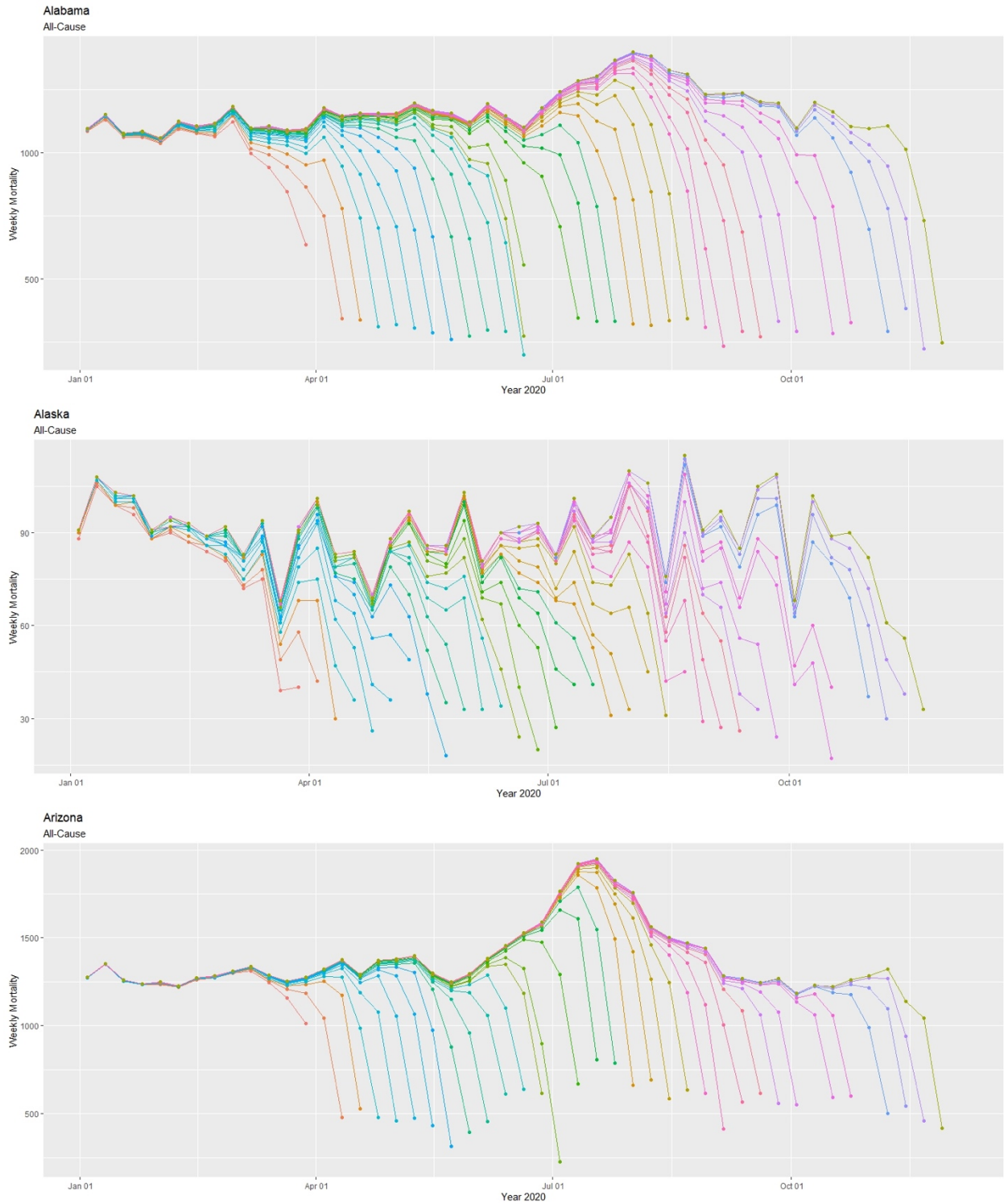
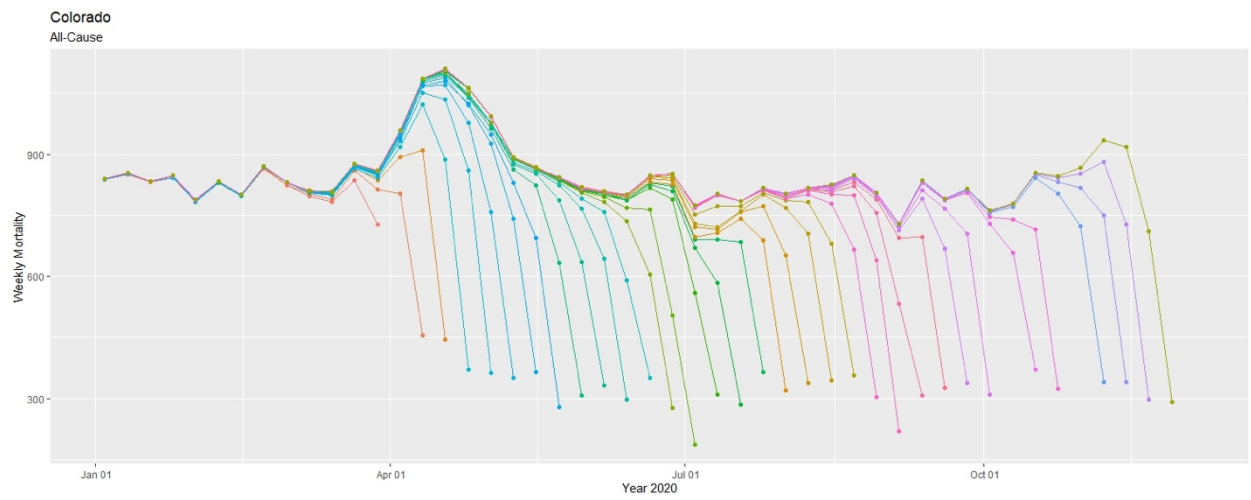
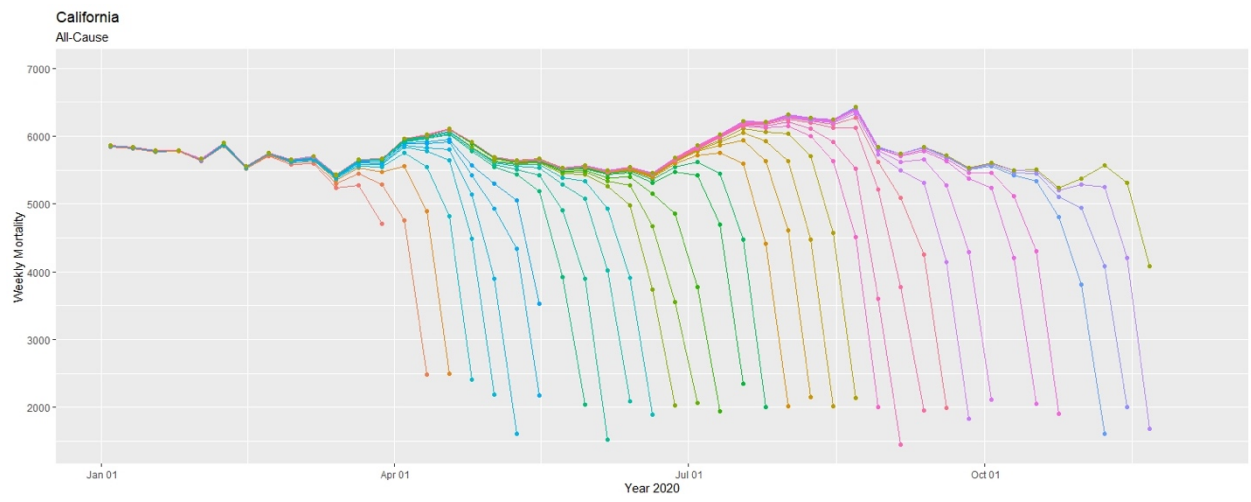
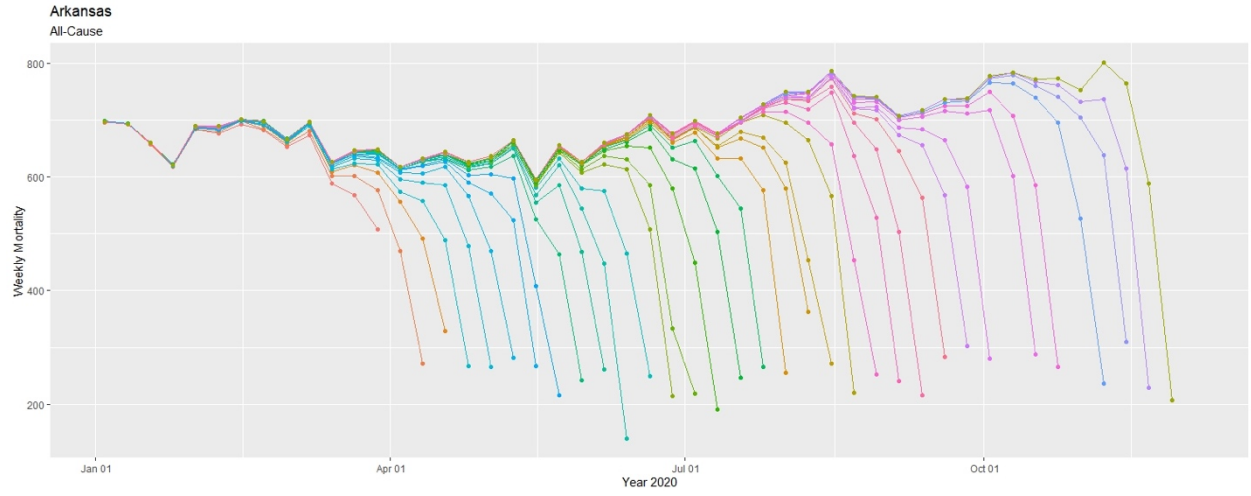
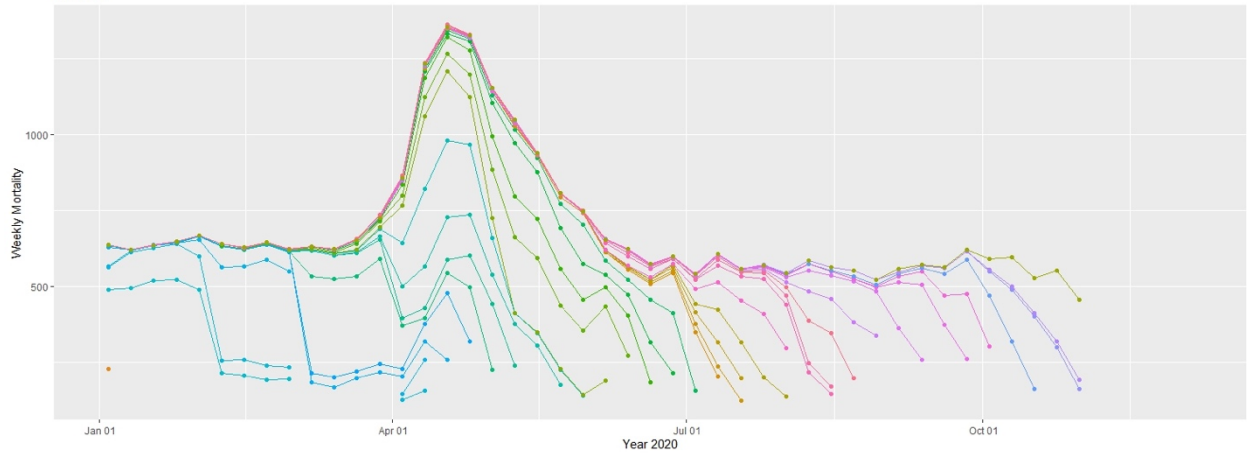


Figure S4: Spaghetti plot of weekly releases of all-cause mortality for all 50 states. Each data point represents a provisional mortality count for that date. Each color line represents each of the 35 data releases between April 17, 2020 and December 4, 2020 in chromatic order; the chromatic order is used instead of a legend for each of the 35 colors.

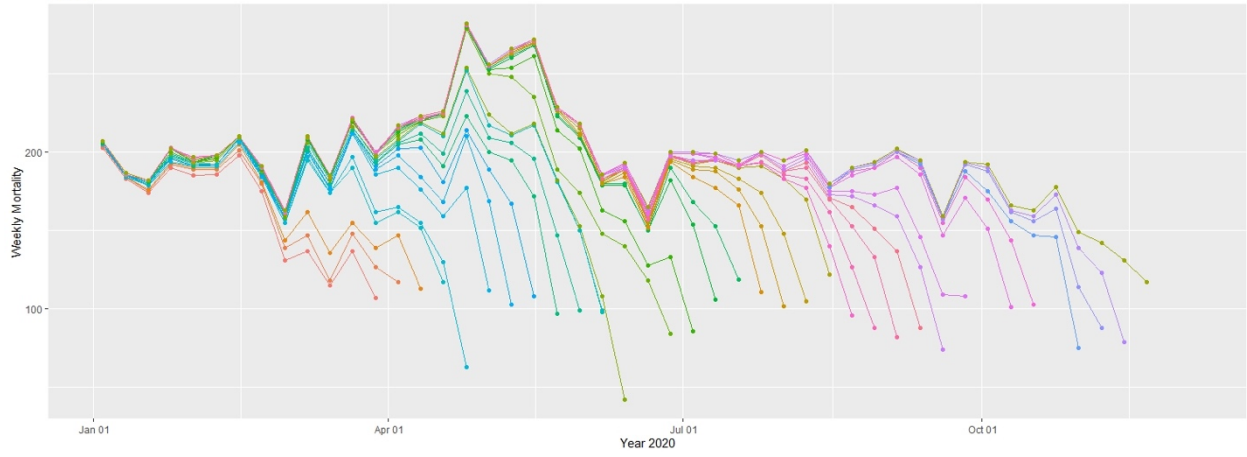




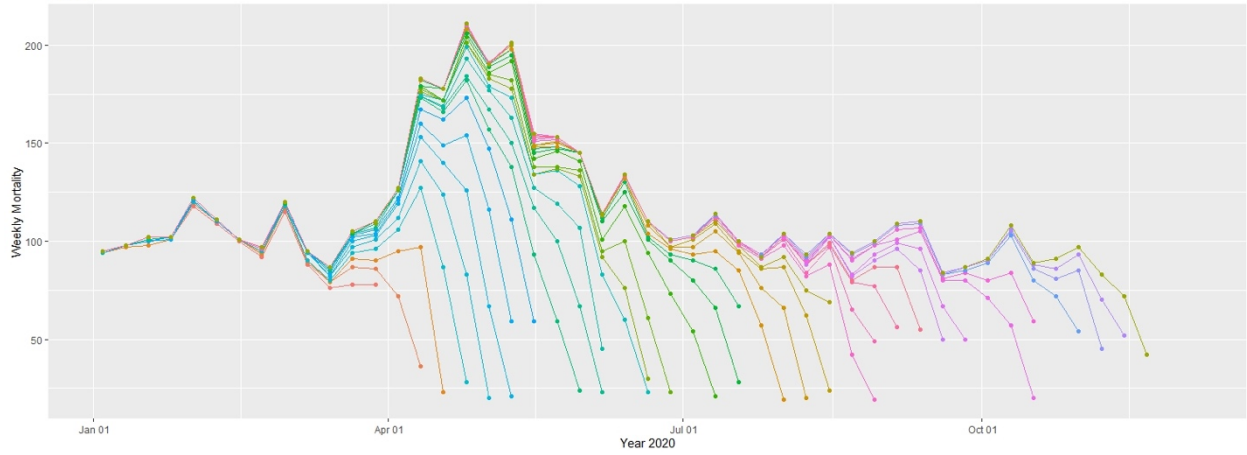
Connecticut
All-Cause



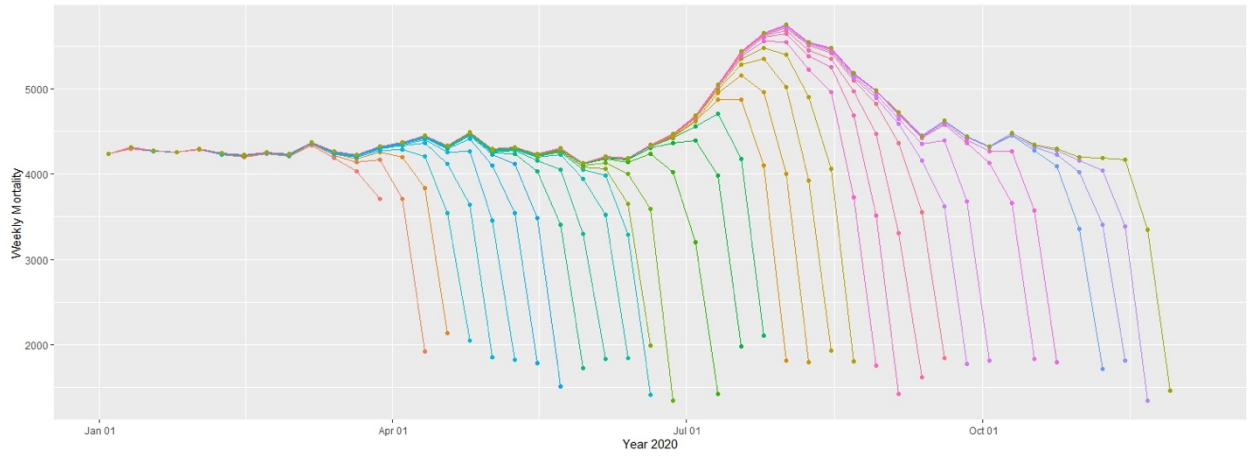
Delaware
All-Cause



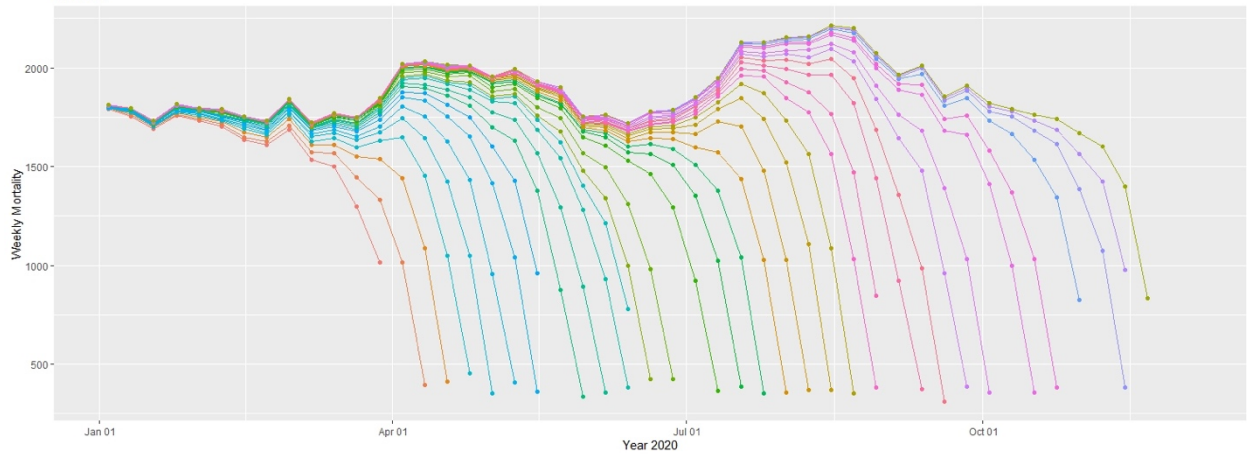
District of Columbia
All-Cause



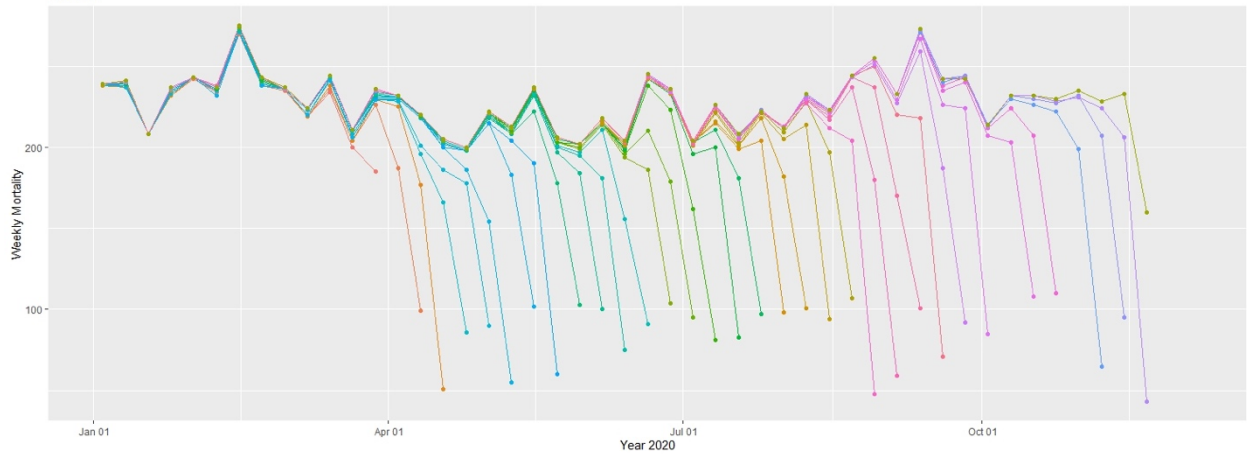
Florida
All-Cause

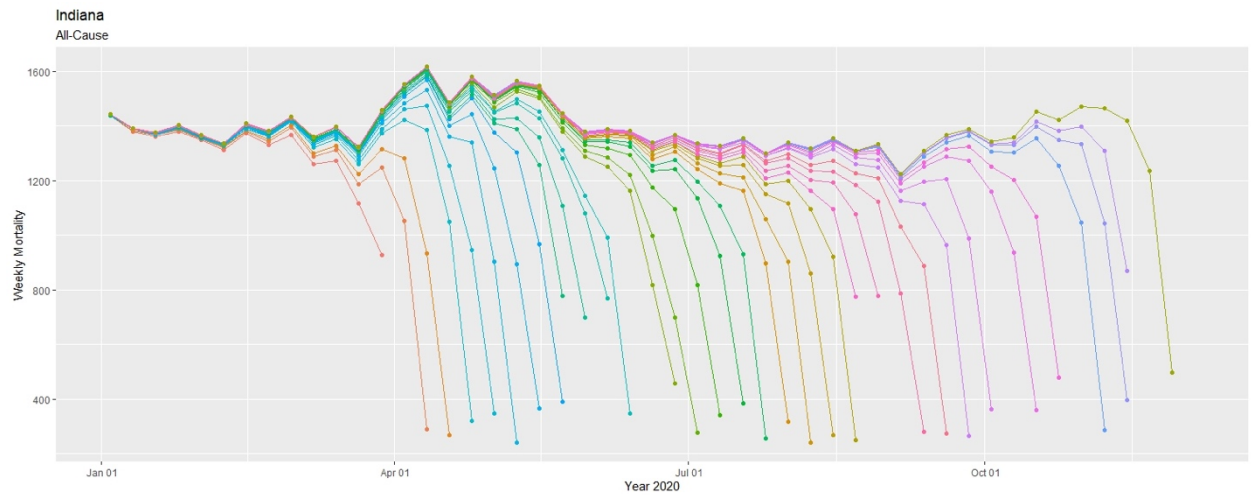
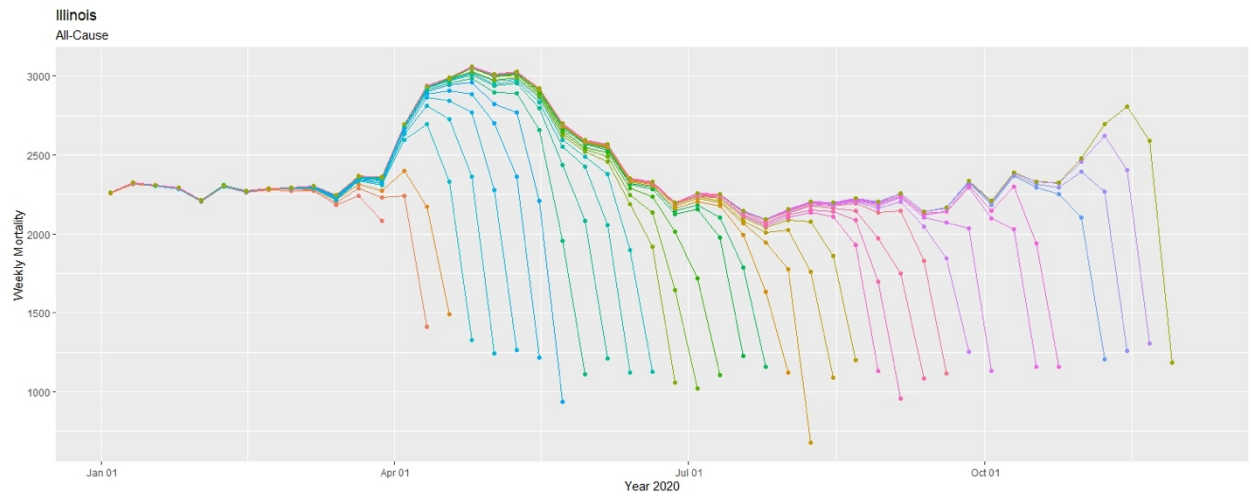
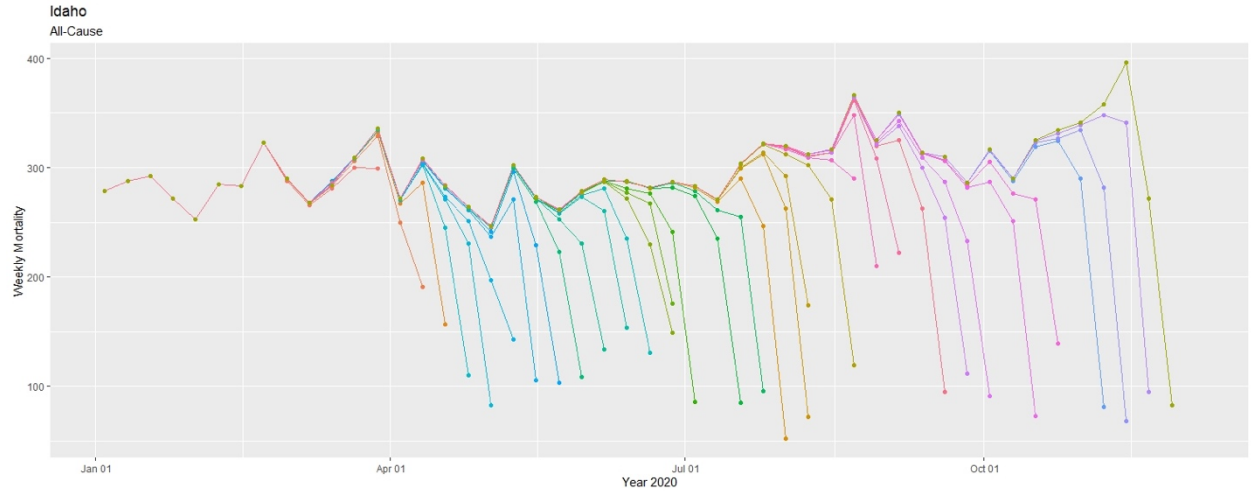


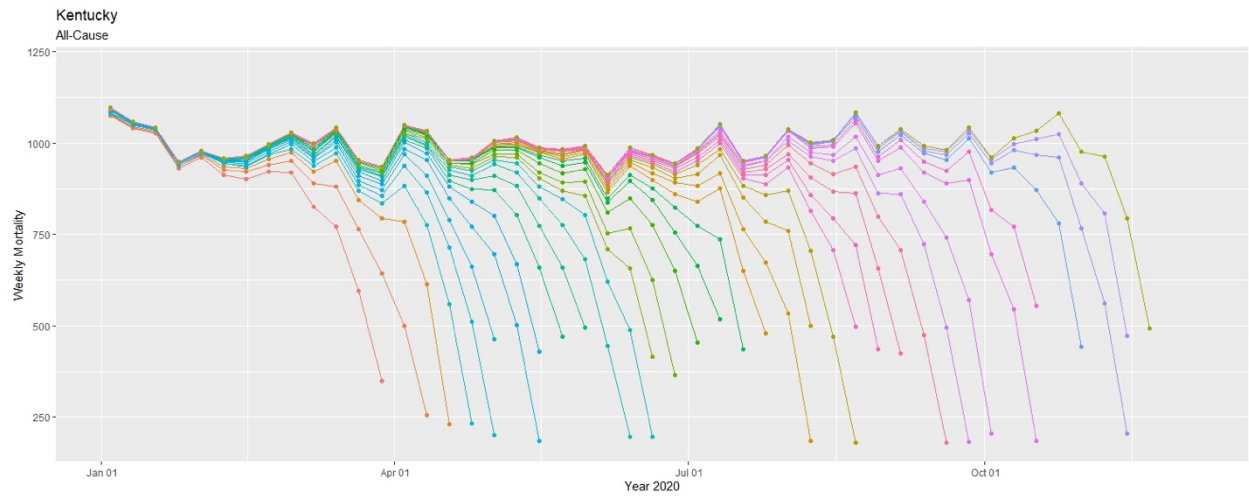
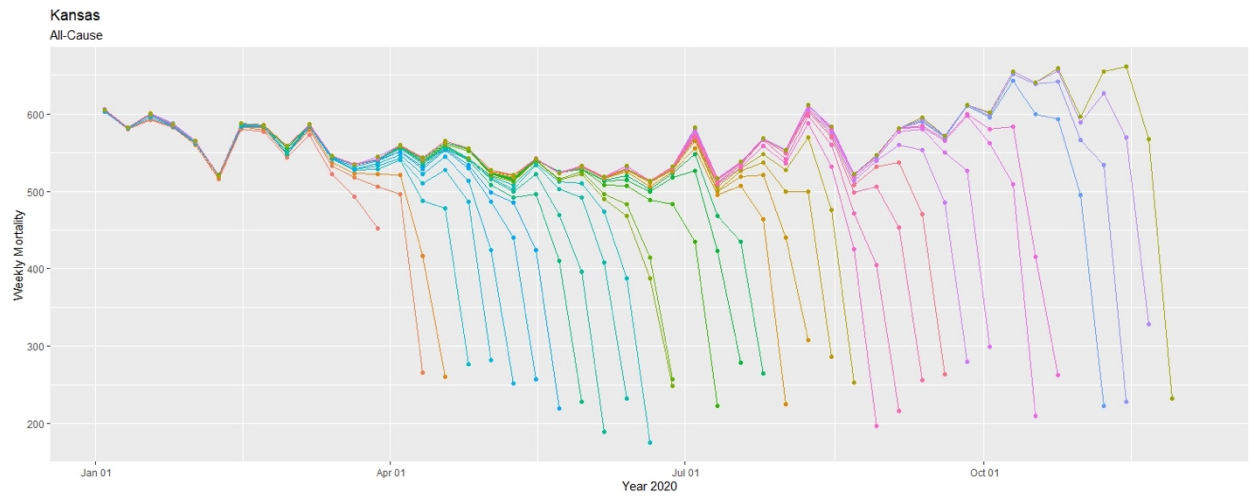
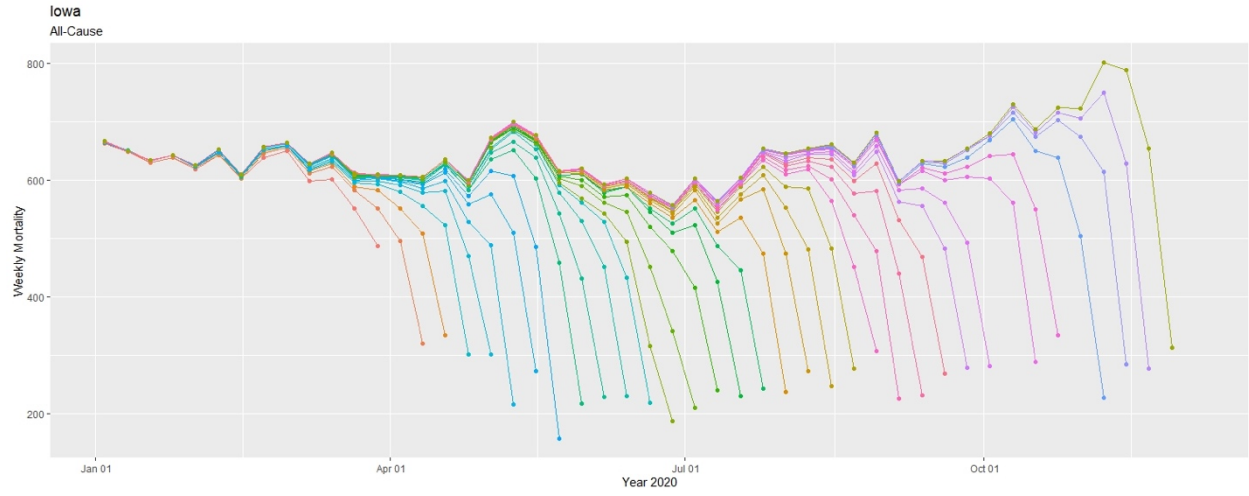
Georgia
All-Cause



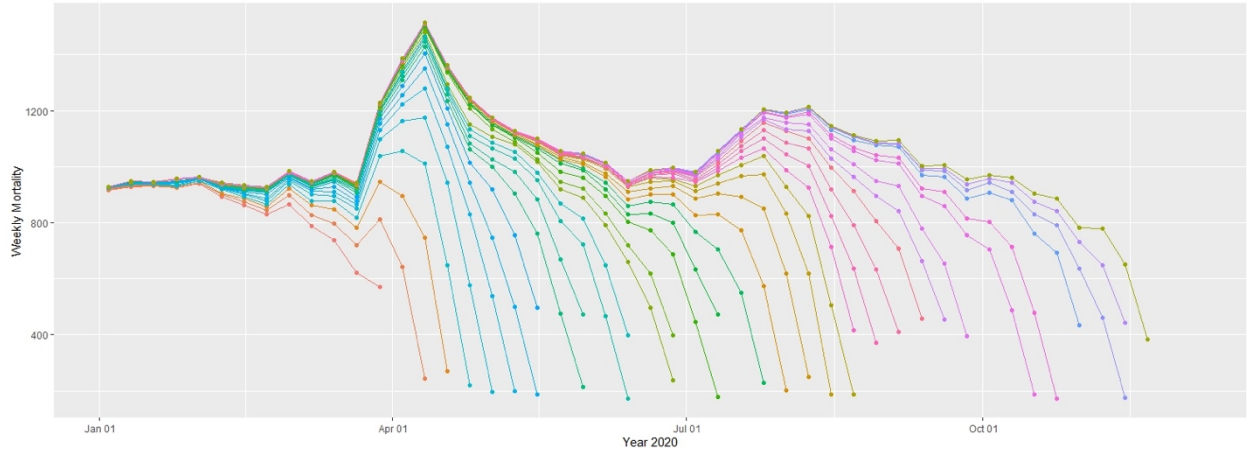
Hawaii
All-Cause



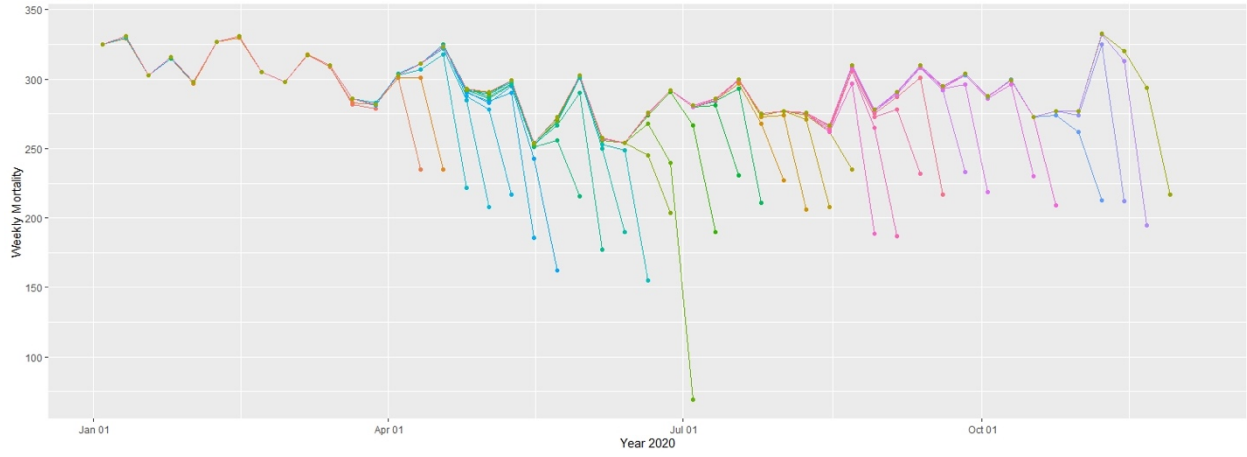




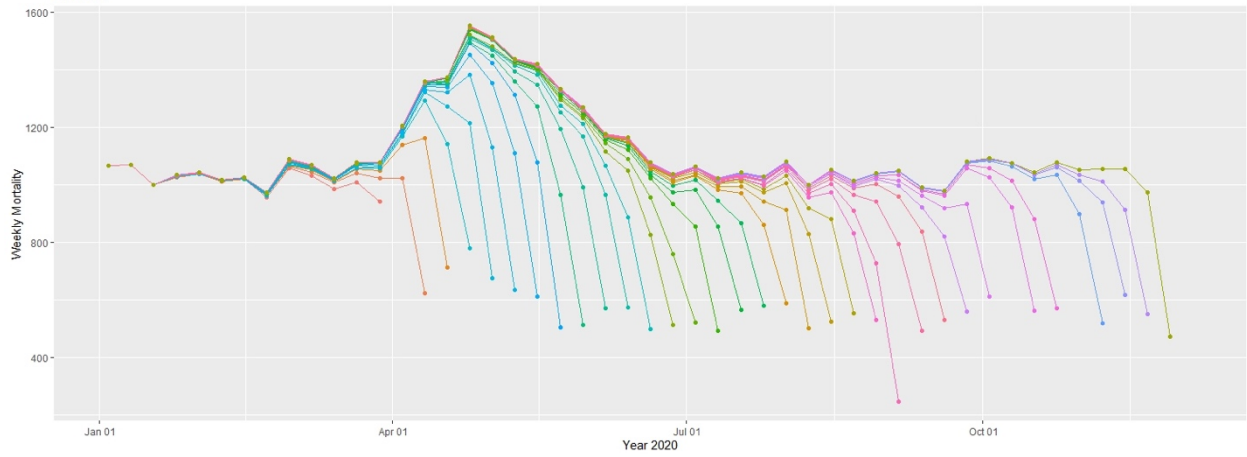
Louisiana
All-Cause



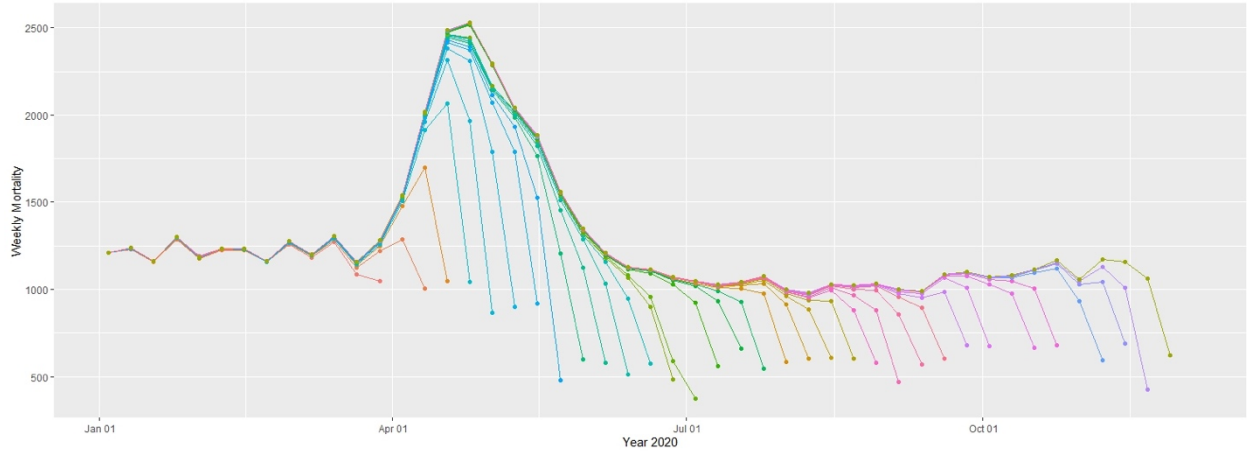
Maine
All-Cause



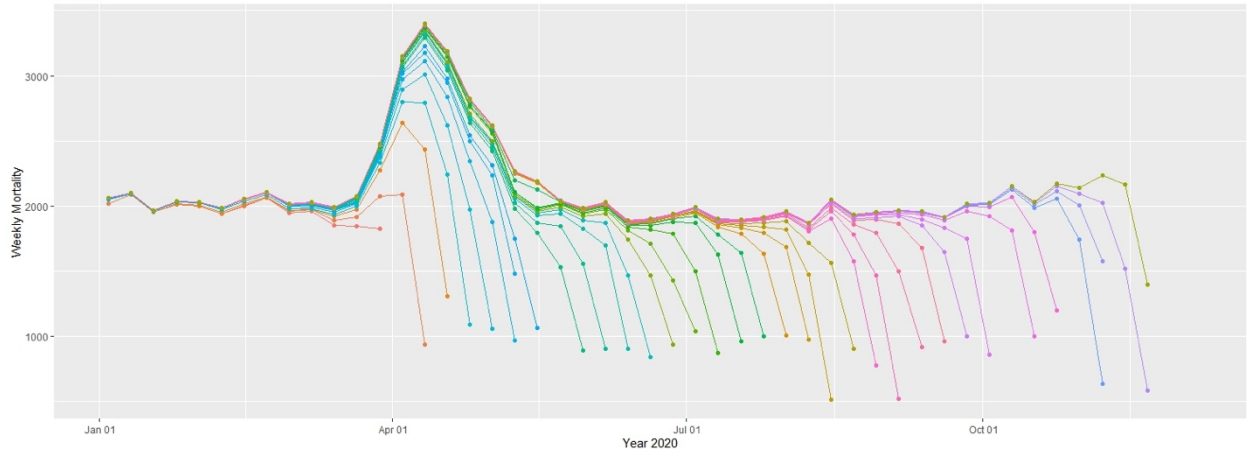
Maryland
All-Cause



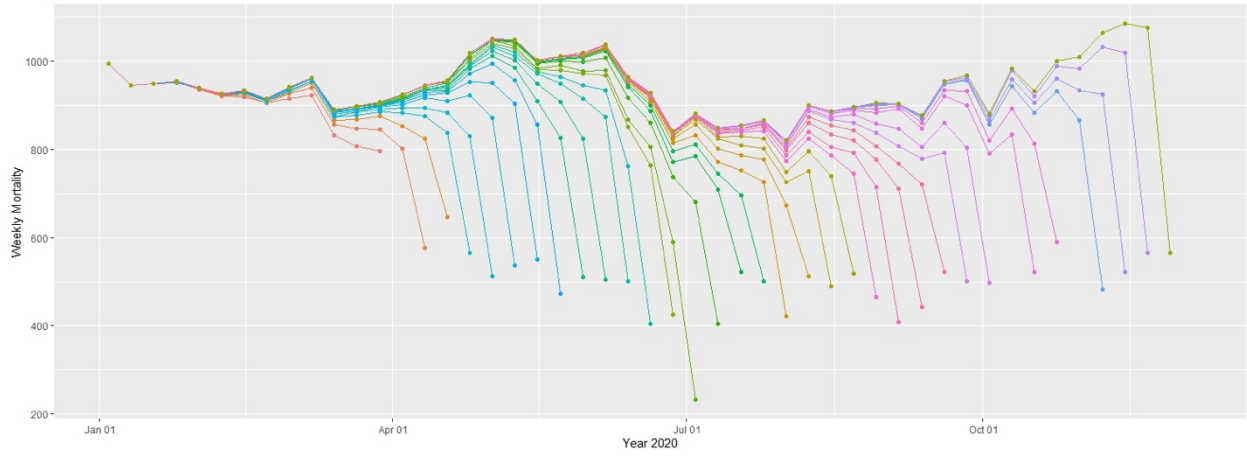
Massachusetts
All-Cause



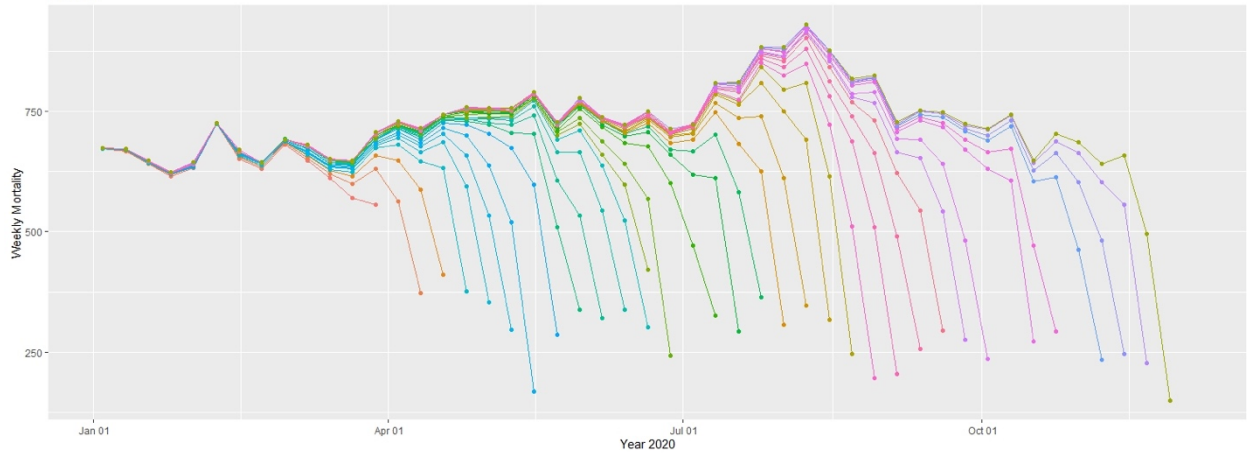
Michigan
All-Cause



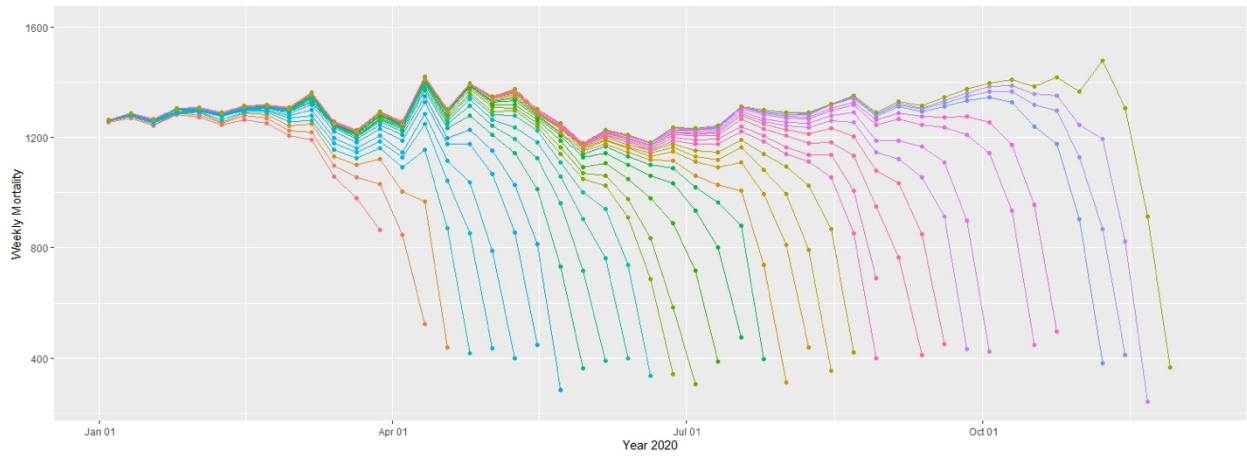
Minnesota
All-Cause



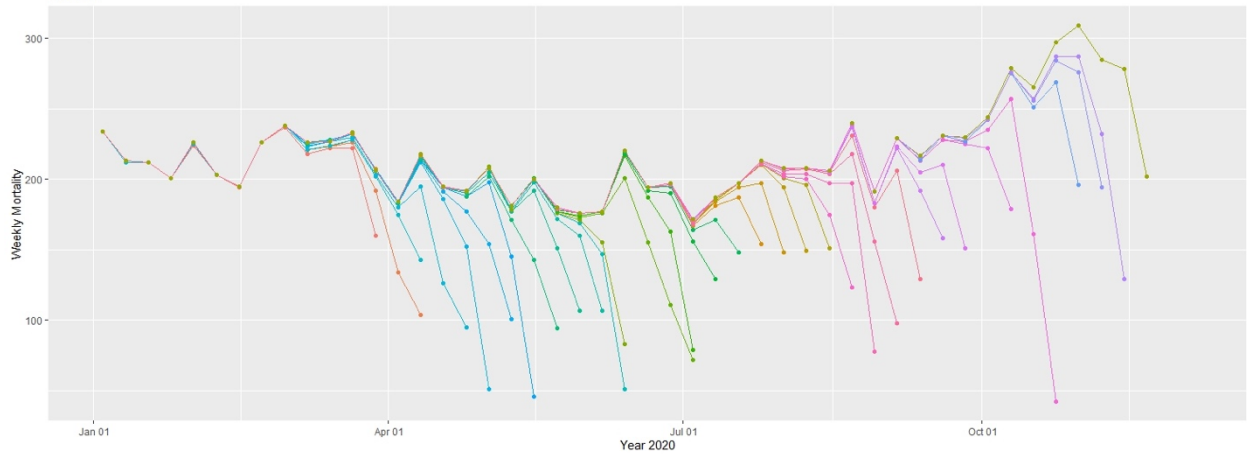
Mississippi
All-Cause



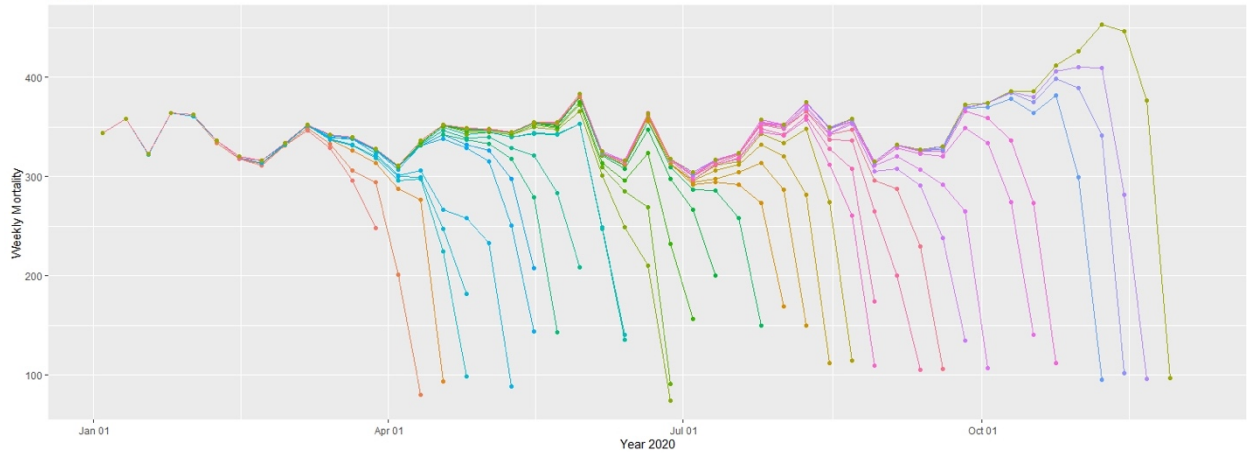
Missouri
All-Cause



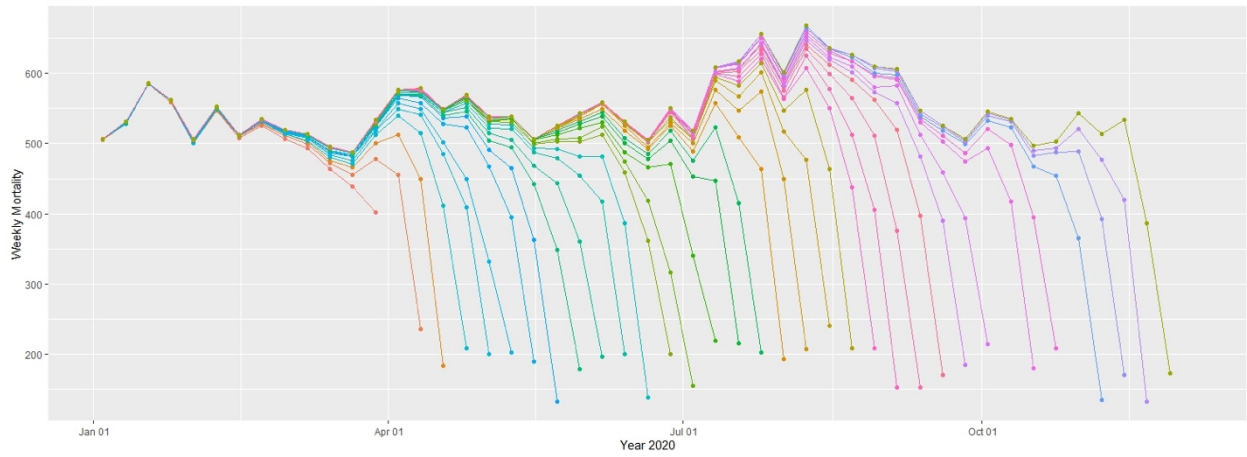
Montana
All-Cause



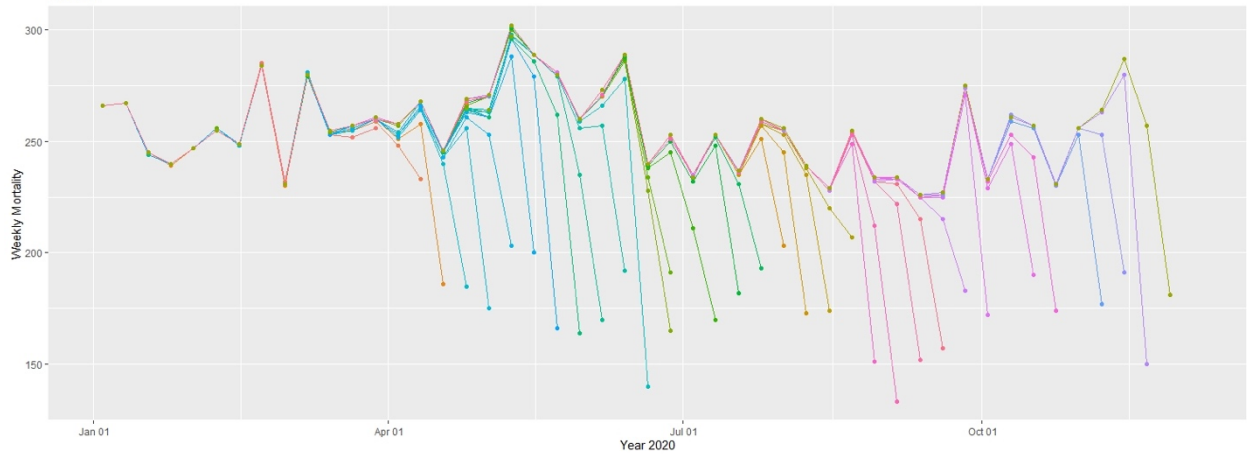
Nebraska
All-Cause



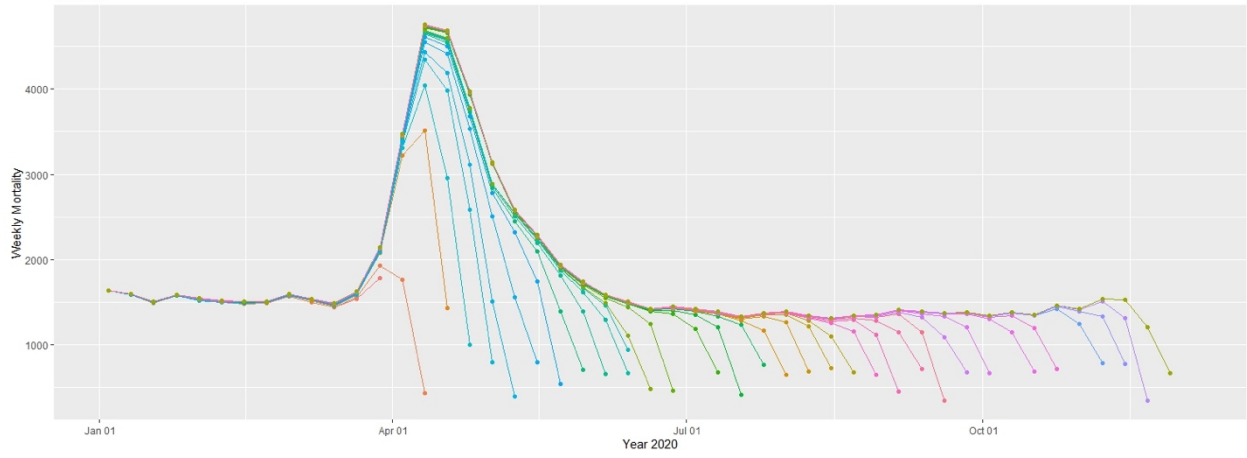
Nevada
All-Cause



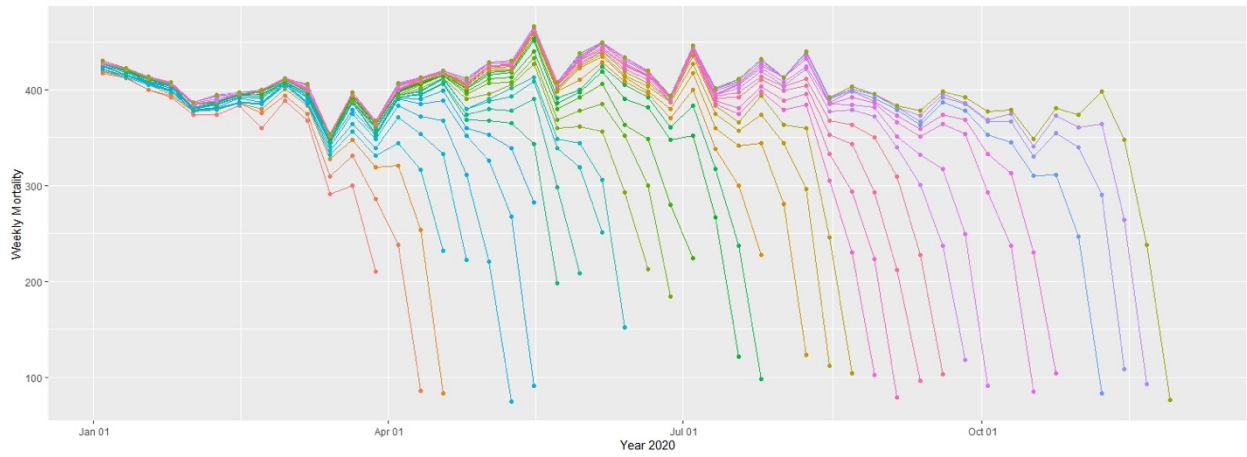
New Hampshire
All-Cause



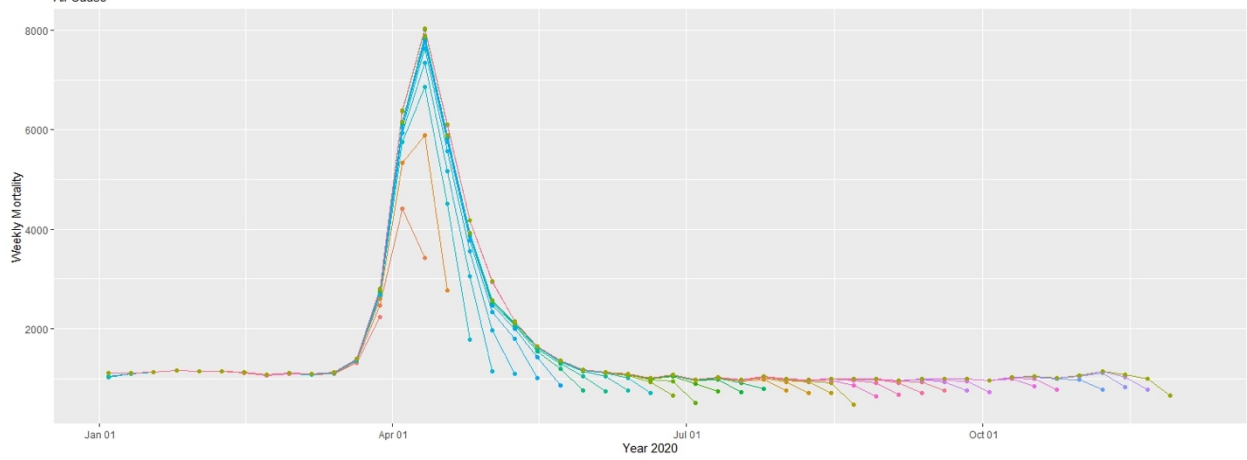
New Jersey
All-Cause

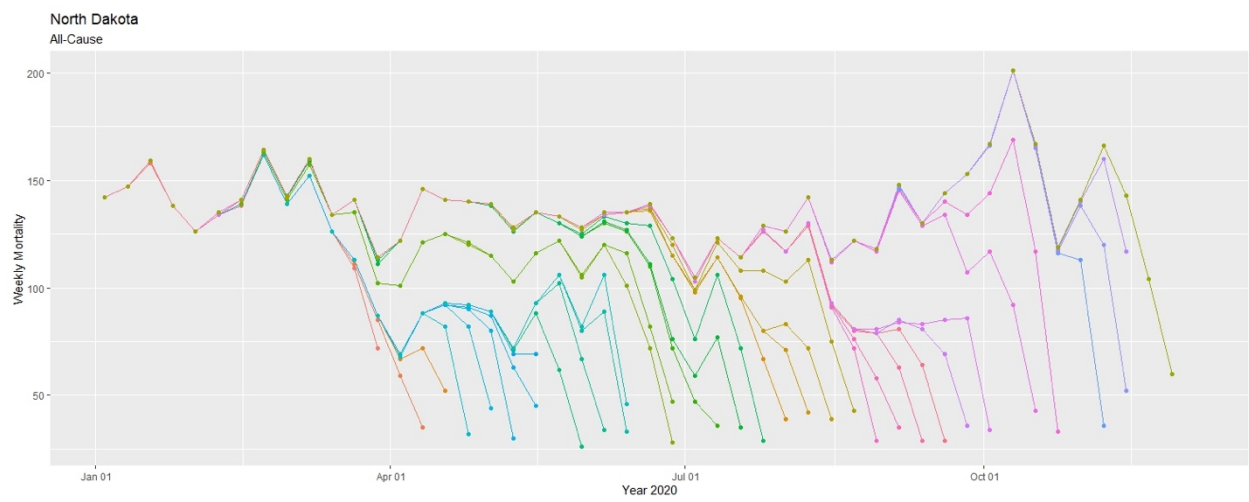
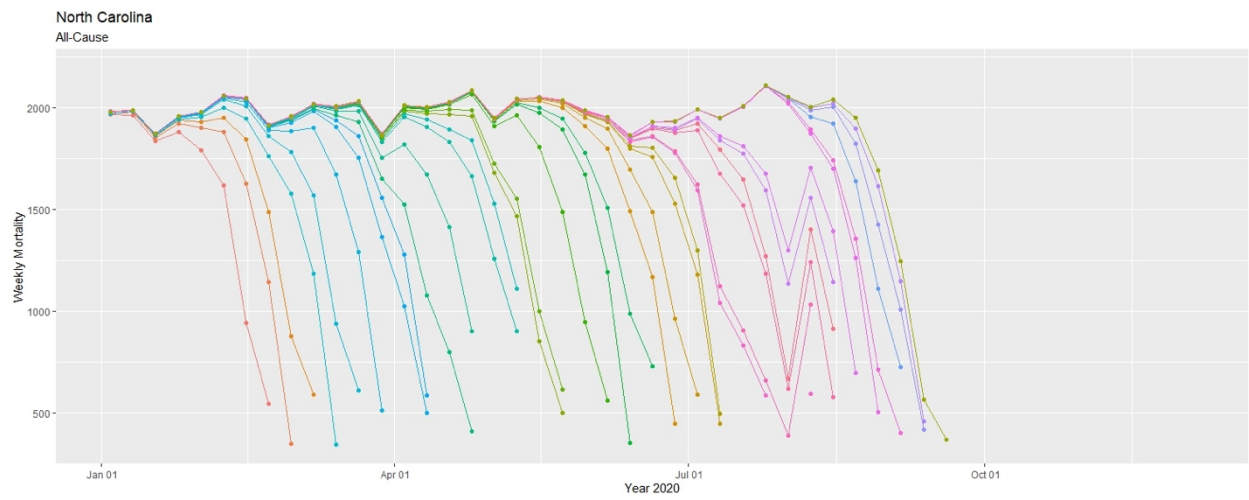
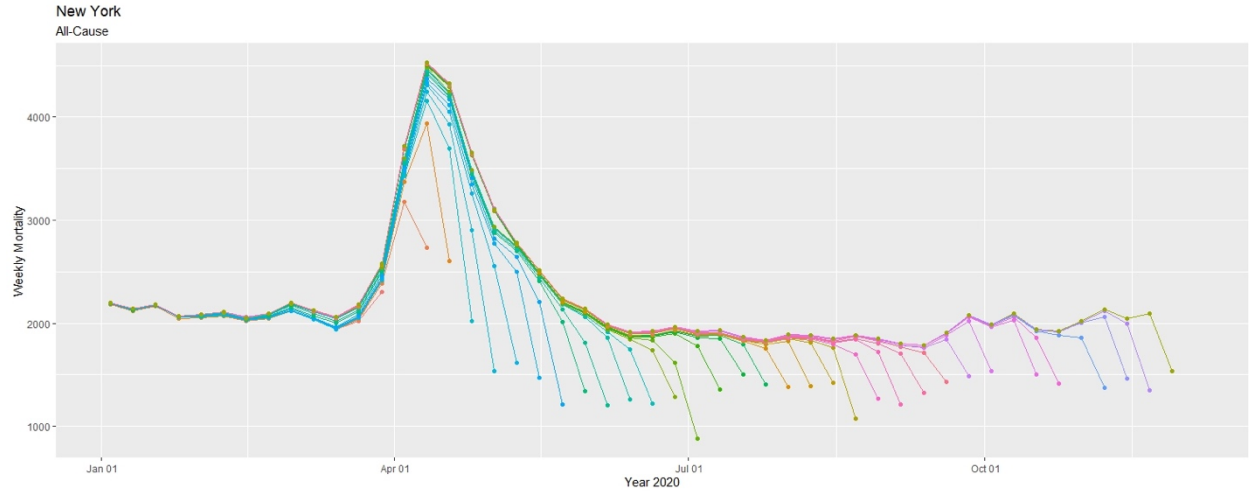


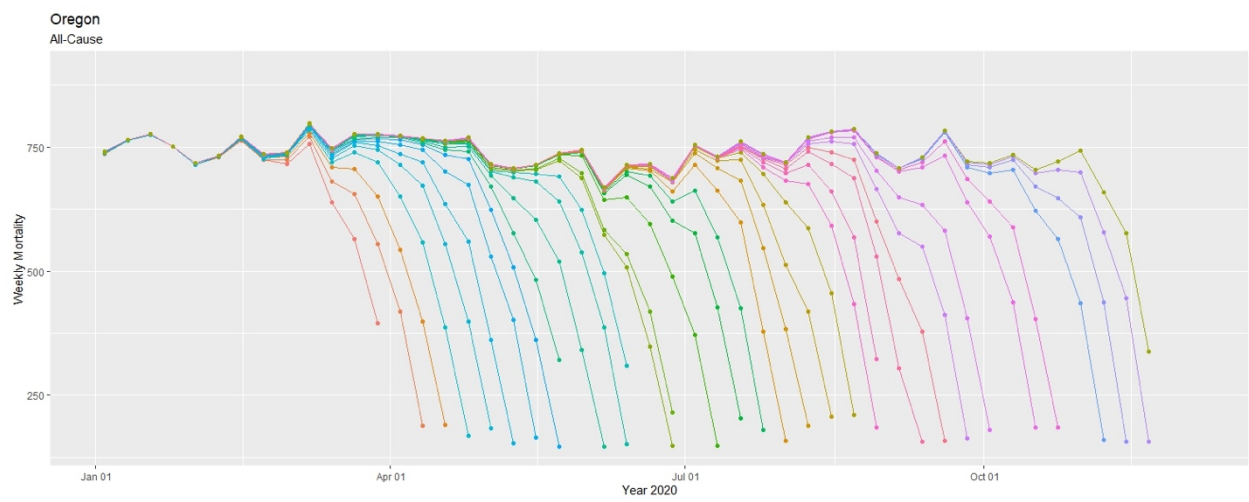
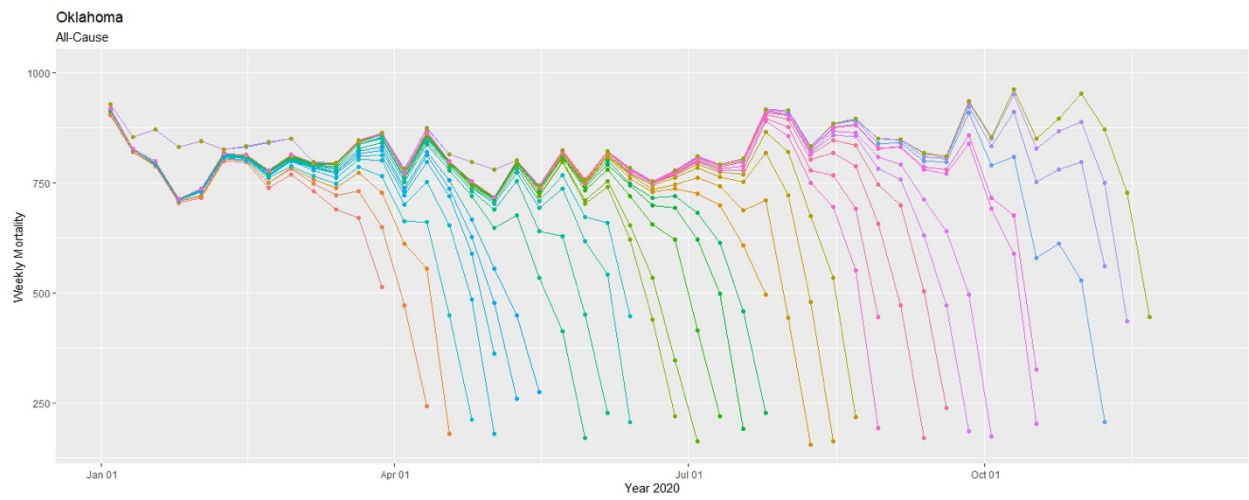
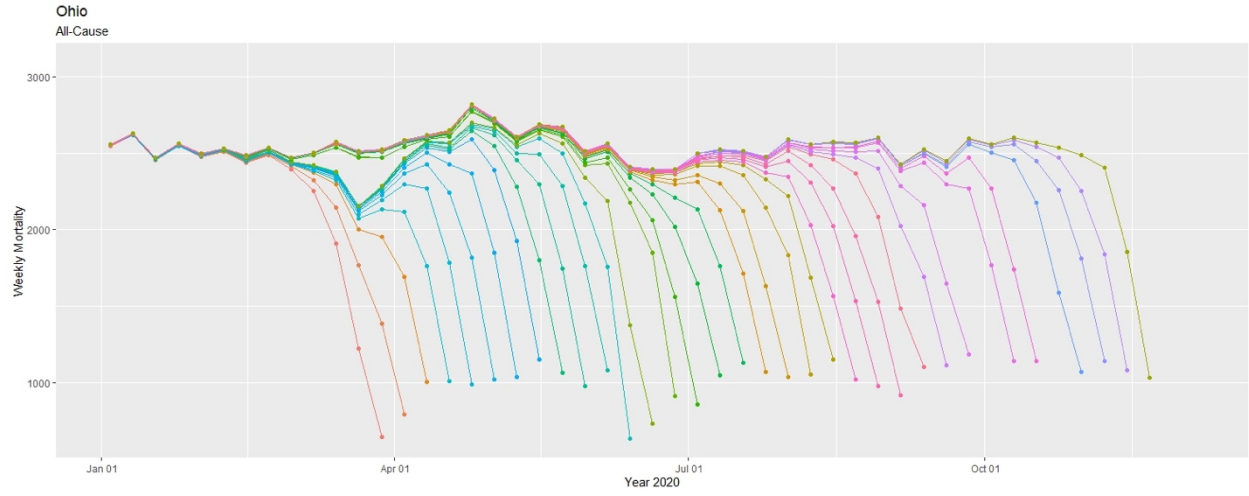
New Mexico
All-Cause



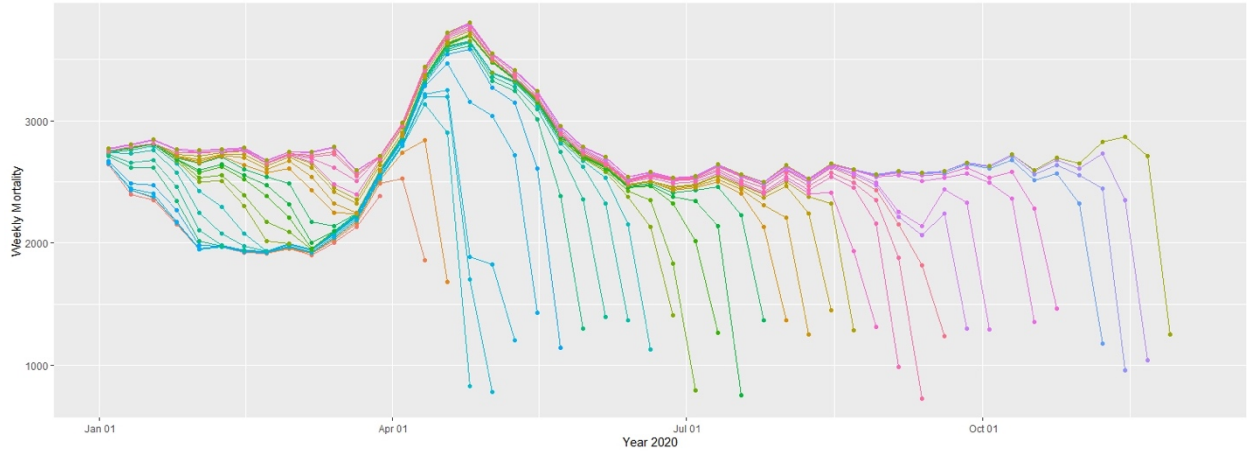
New York City
All-Cause



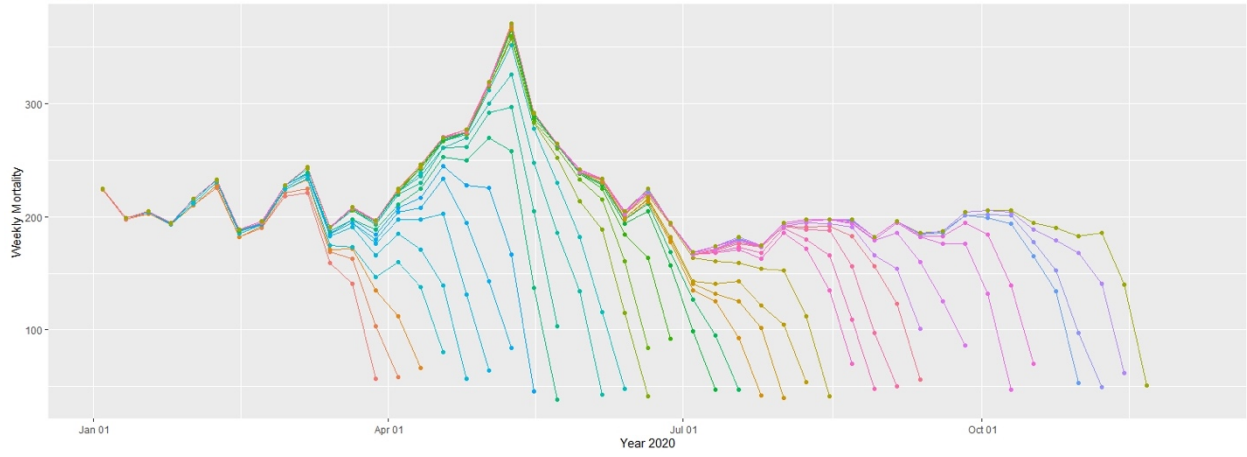




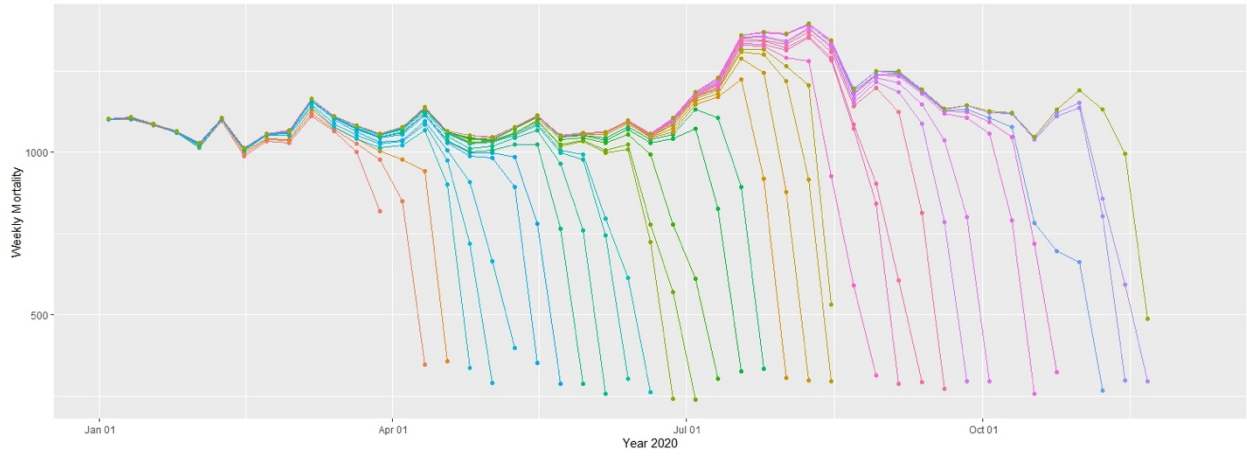
Pennsylvania
All-Cause

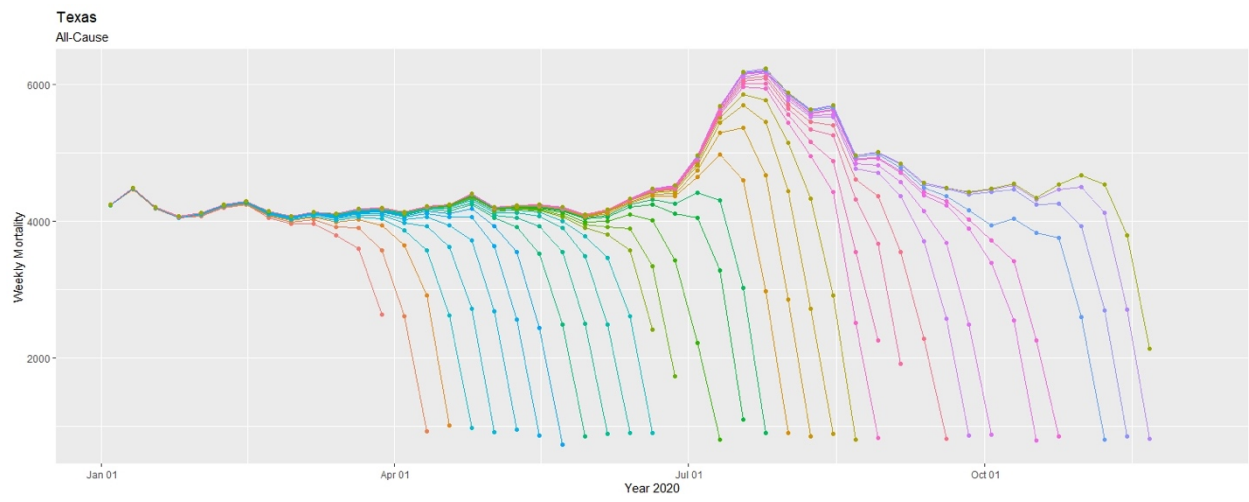
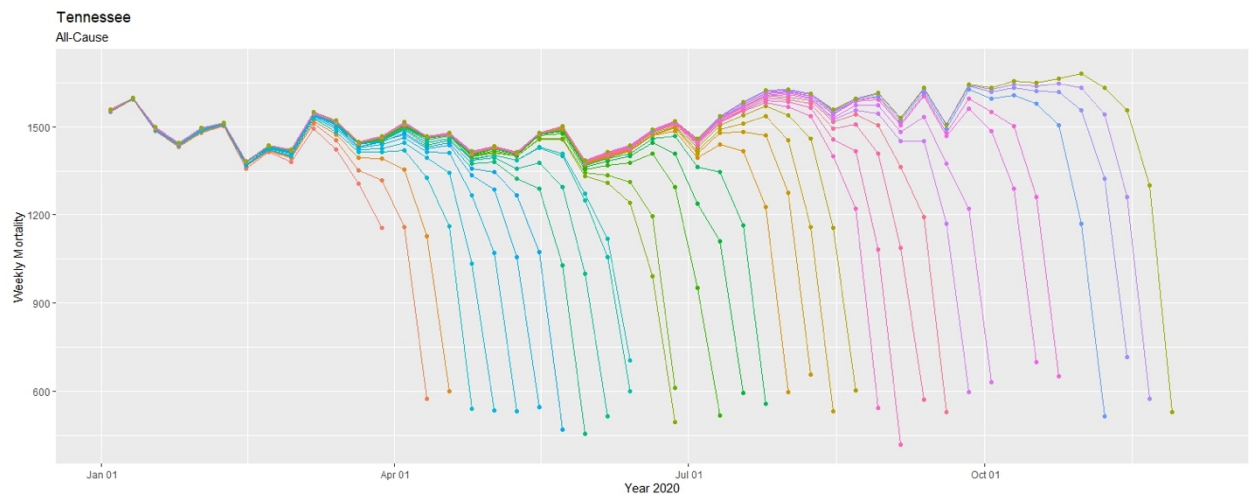
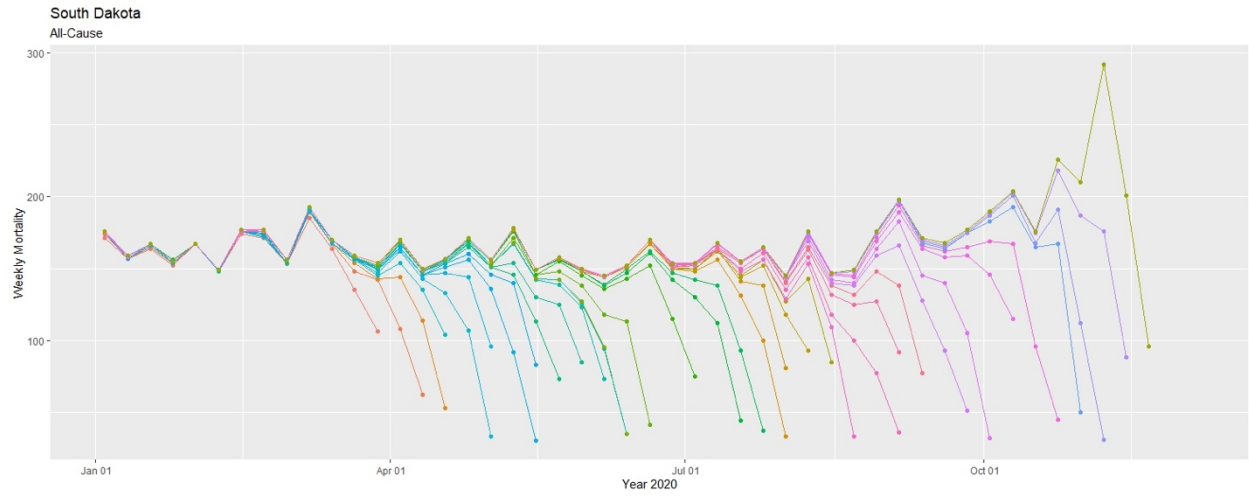


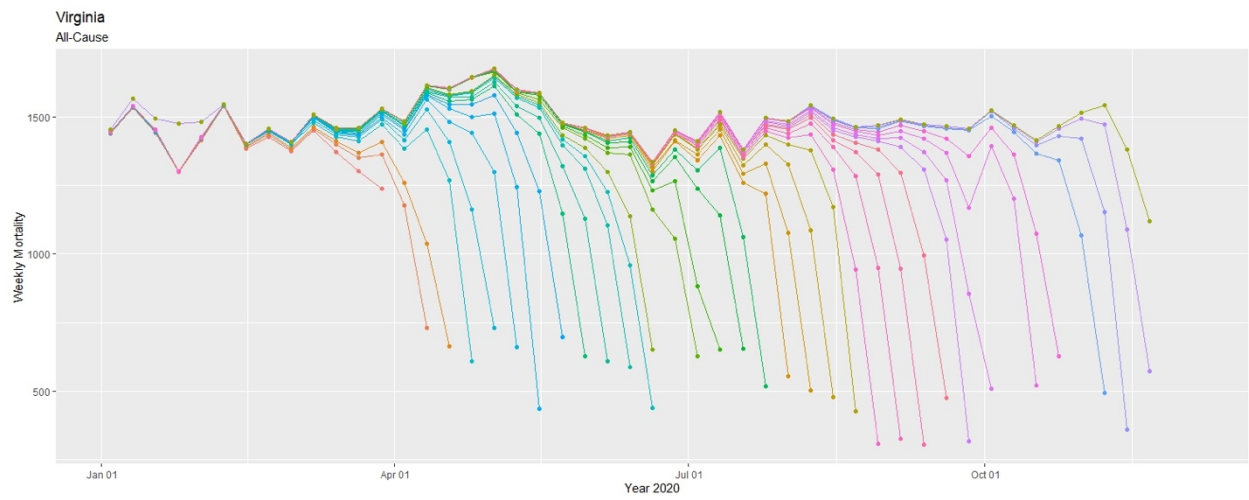
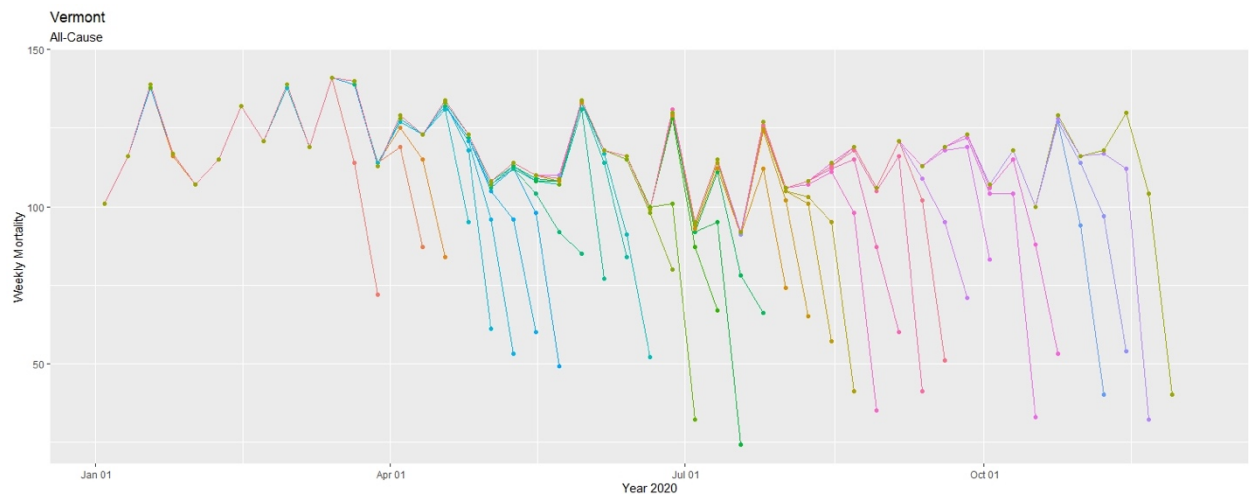
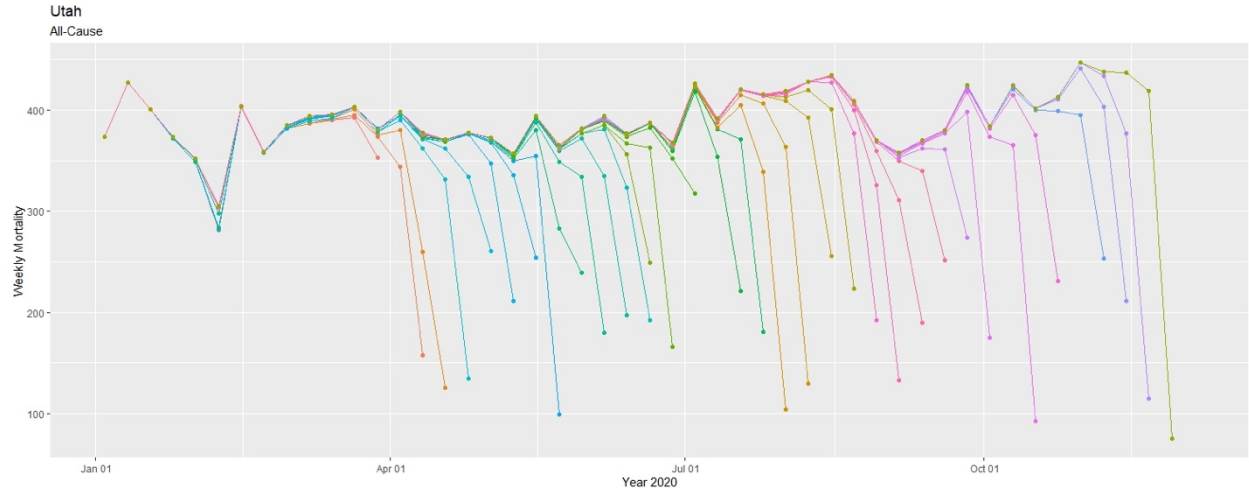
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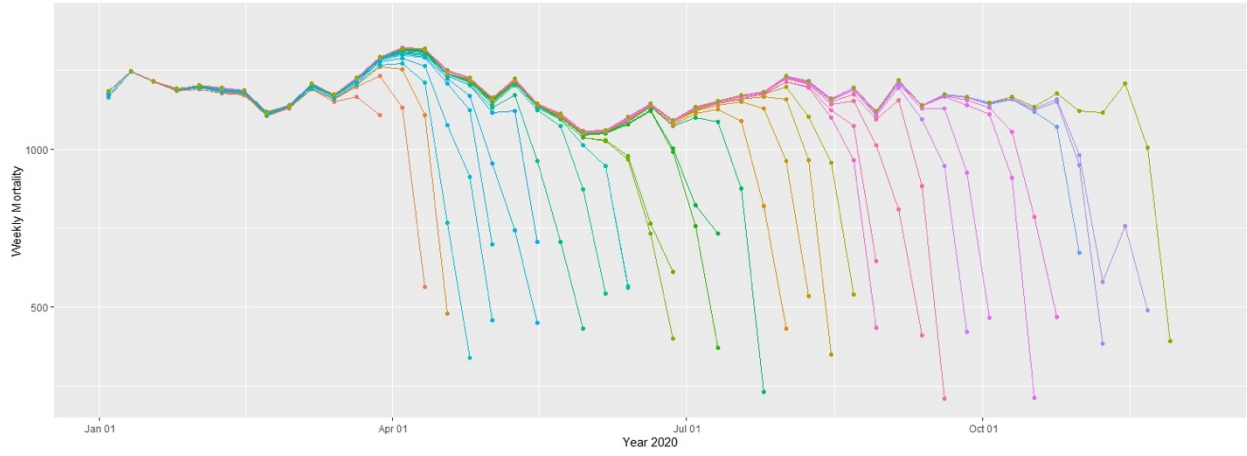
South Carolina
All-Cause







Washington
All-Cause



West Virginia
All-Cause

