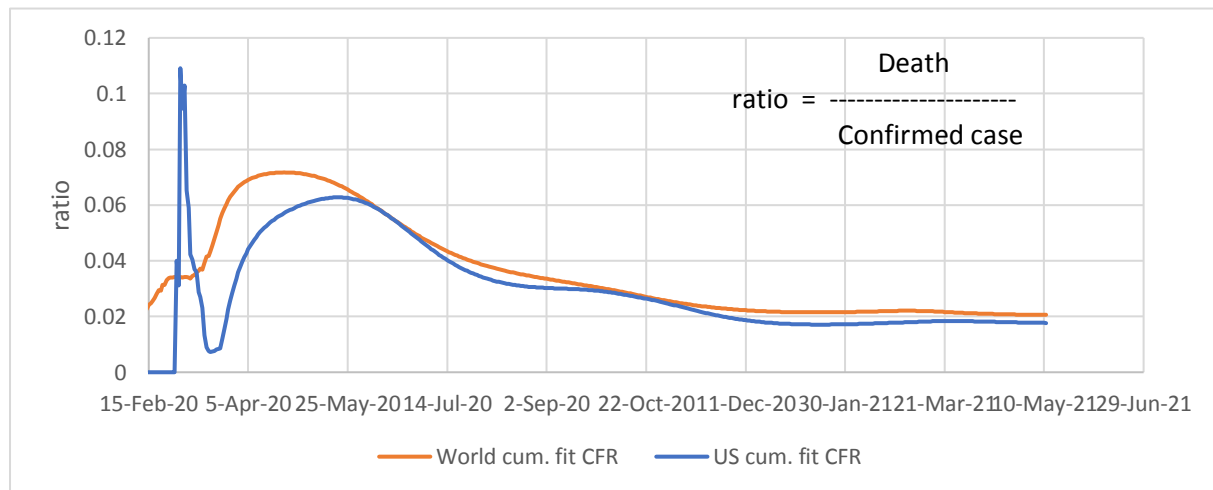
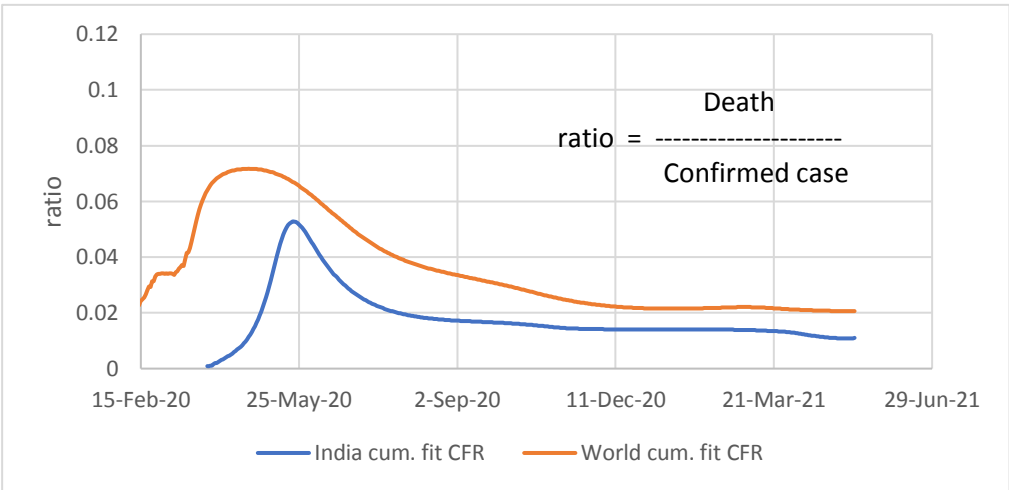
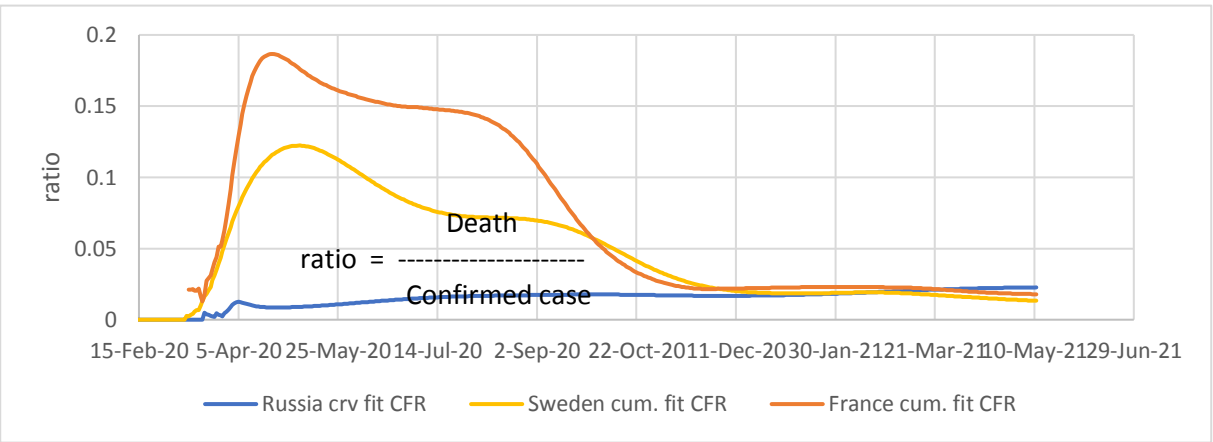
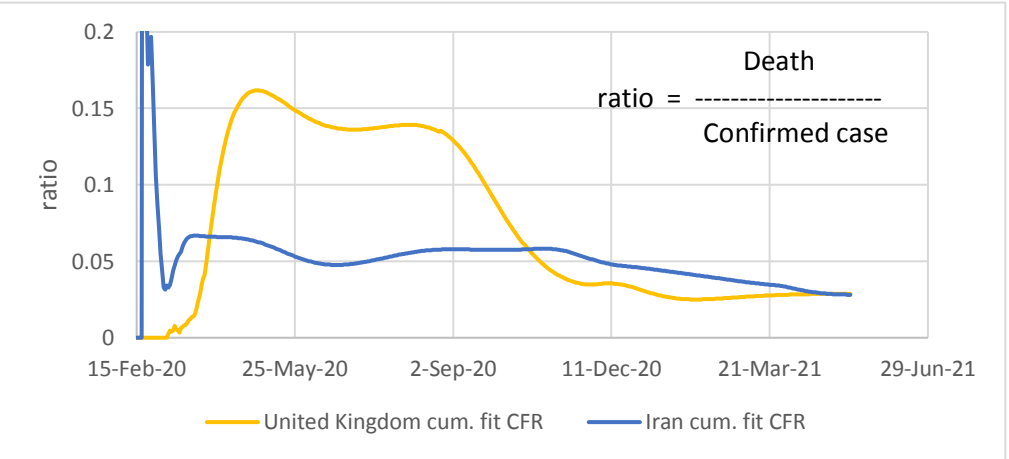
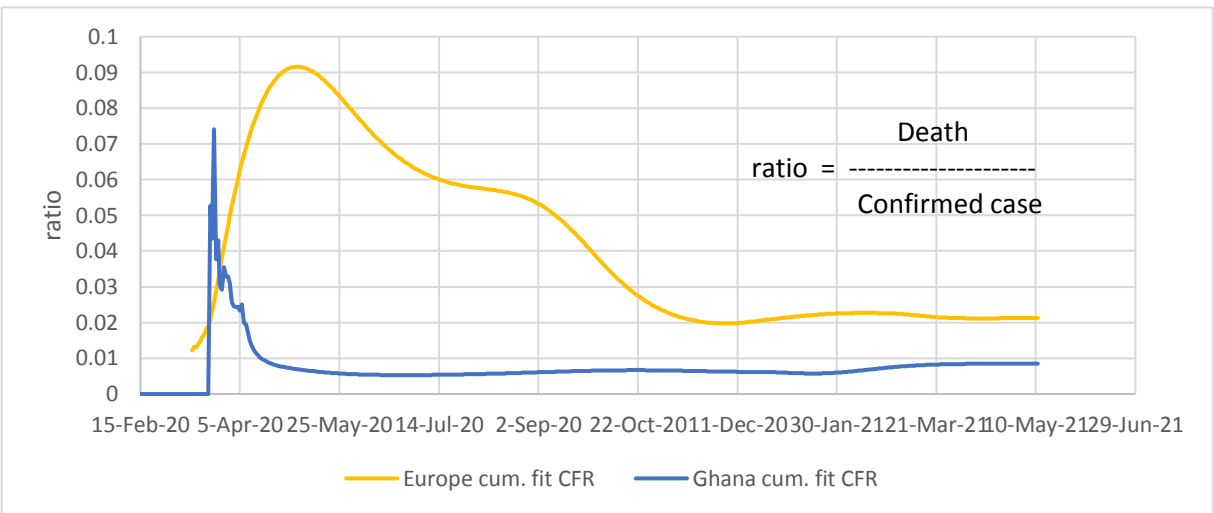
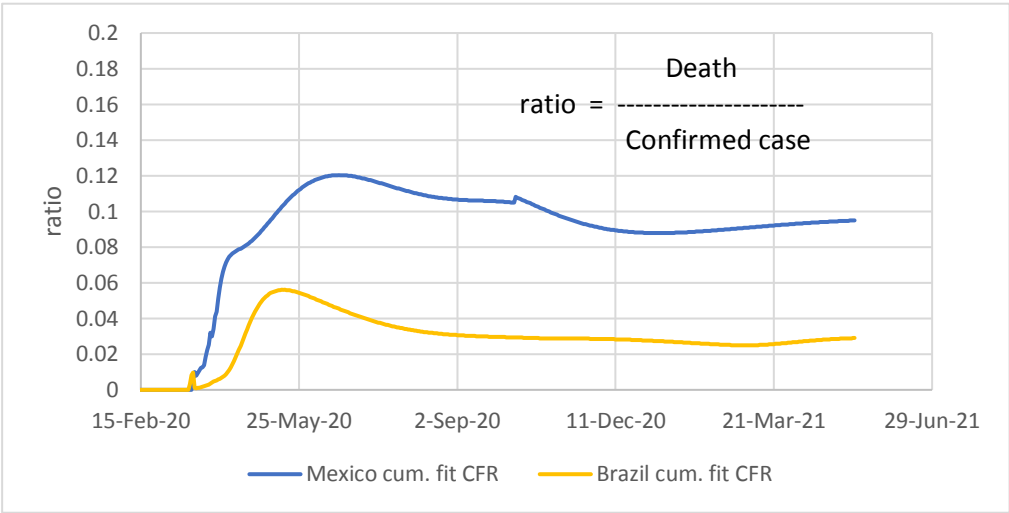
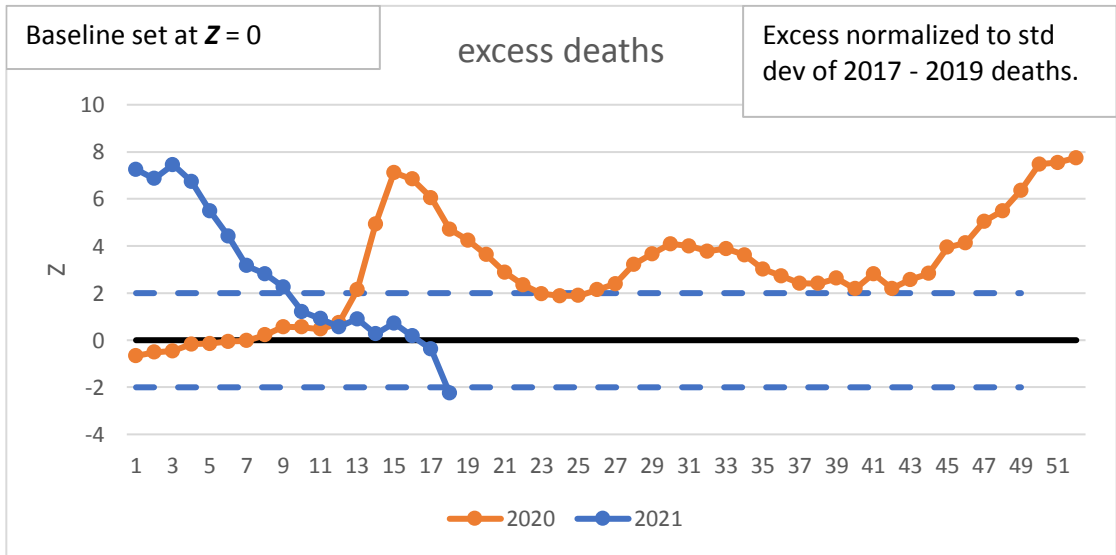


Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)

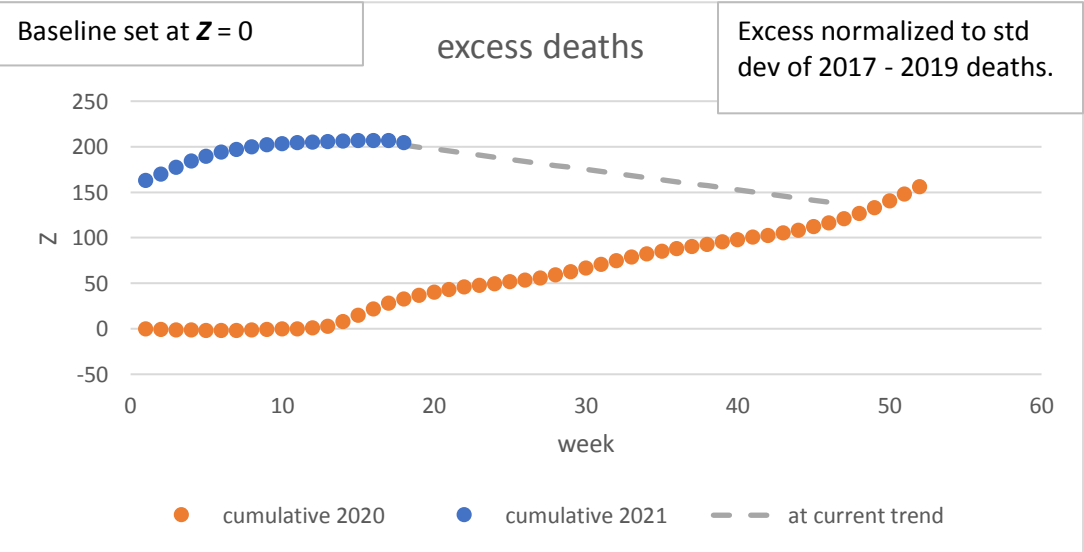


Excess deaths as a Z score:



Above based on Z score of three year standard deviation from 2017-2019. What follows is cumulative plot of same.

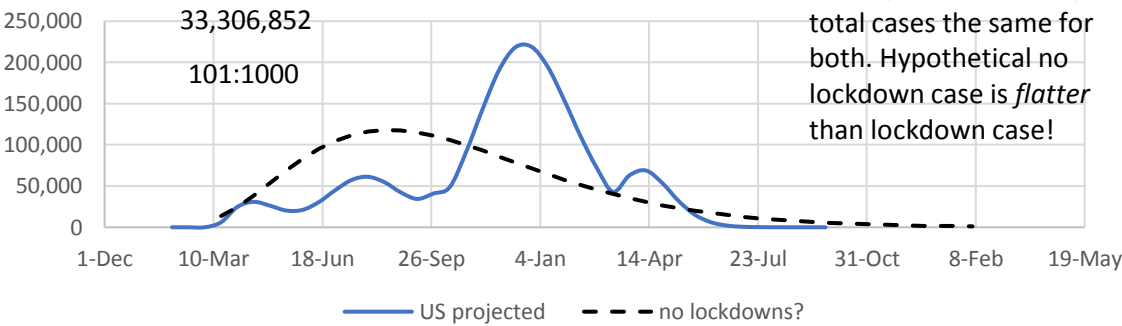
Data in recent weeks are incomplete. Only 60% of death records are submitted to NCHS within 10 days of the date of death, and completeness varies by jurisdiction. Data are not weighted and counts are likely



Confirmed Cases

US projected

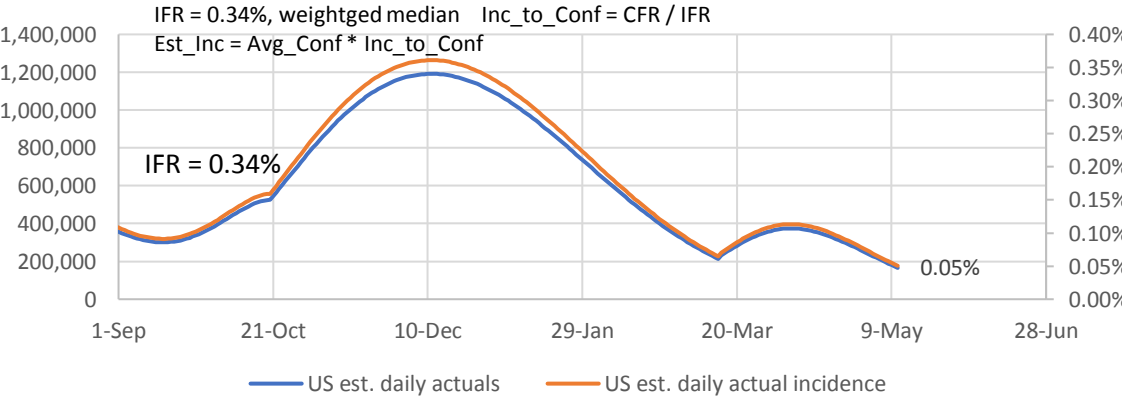
Same area under both curves; in other words, total cases the same for both. Hypothetical no lockdown case is flatter than lockdown case!



Count

US estimated actual daily infections

Incidence



False Positives Demonstration

Use 0.05% from US est. incidence above as estimated daily incidence

Prevalence estimated as avg. infected period of 2 weeks X incidence

99% accuracy of test

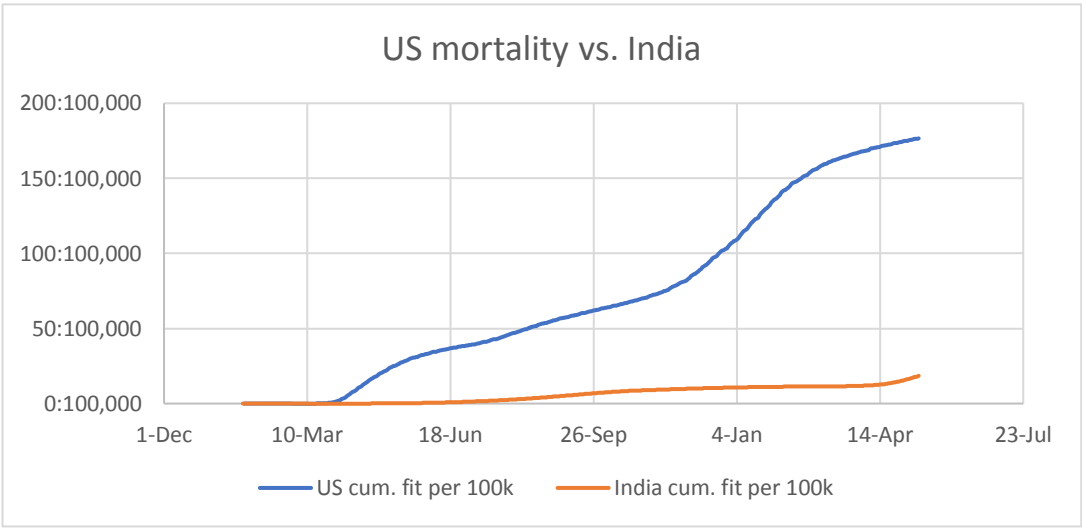
0.05% X 14 = 0.700%

| | Positive | Negative | |
|----------|----------|----------|---------|
| test pos | 0.693% | 0.993% | 1.69% |
| test neg | 0.007% | 98.307% | 98.31% |
| | 0.700% | 99.300% | 100.00% |

False pos. is more than half of total positives.

| | | |
|---------|--------------|---------|
| TRUE + | 0.693%/1.69% | 41.1% |
| FALSE + | 0.993%/1.69% | 58.9% |
| Total | ----- | 100.00% |

Counter-act this tendency by increasing test sensitivity. However this may increase false negatives, the recipients of which may be positive, think they're negative, and go spread it around some more.



USA Excess Deaths (from CDC data):

| Annualized on 52 weeks | | | |
|--------------------------|--------------|-----------------------|-------------|
| | All Cause | All Cause, excl. CV19 | CV19 |
| 3 yr average before 2020 | 859:100,000 | 859:100,000 | - |
| 2020 | 1016:100,000 | 905:100,000 | - |
| Diff. | 157:100,000 | 46:100,000 | 111:100,000 |

| | |
|--------------|---|
| 3 yr average | 29% of All-Cause excess deaths are non-CV19 |
| 859:100,000 | |

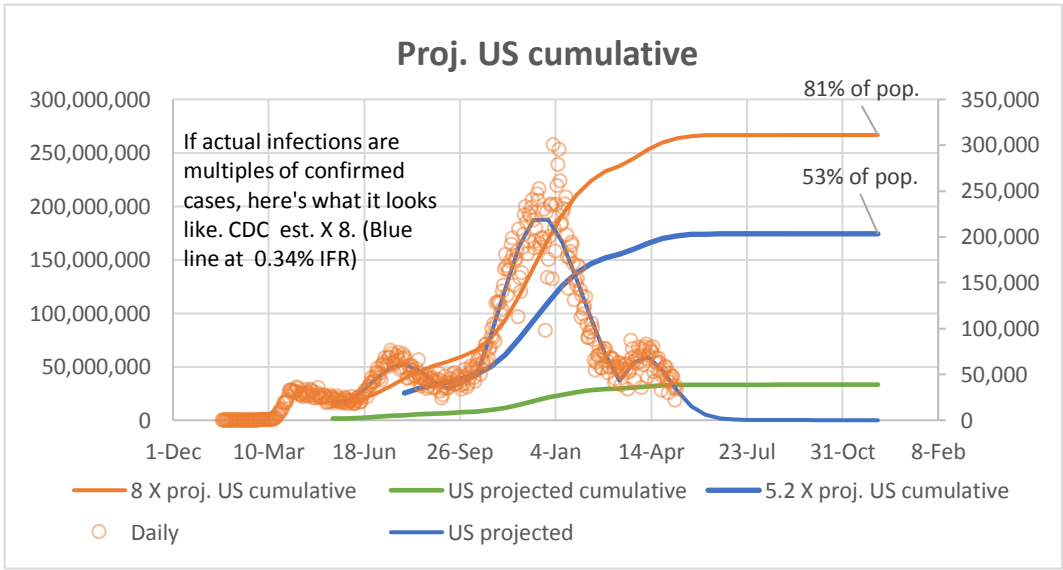
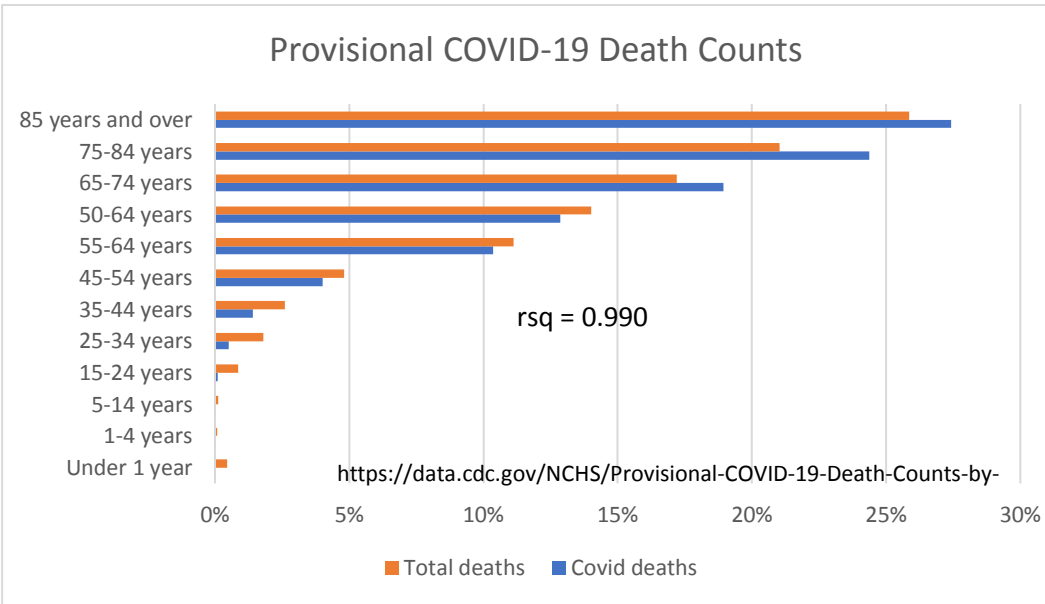
<https://data.cdc.gov/NCHS/Excess-Deaths-Associated-with-COVID-19/xkxf-xrst/data>

$K = 0.318$ $R_o :$ $R :$

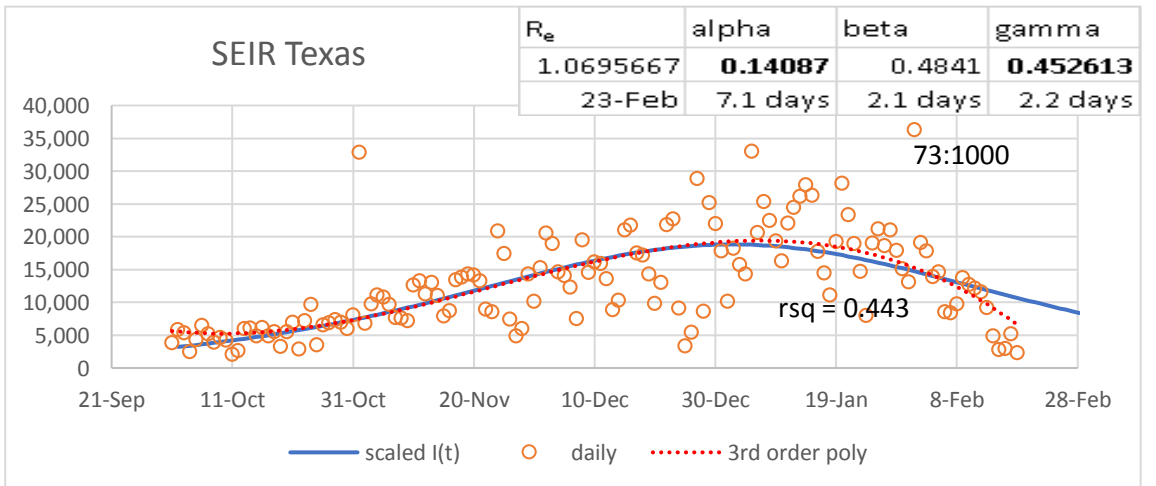
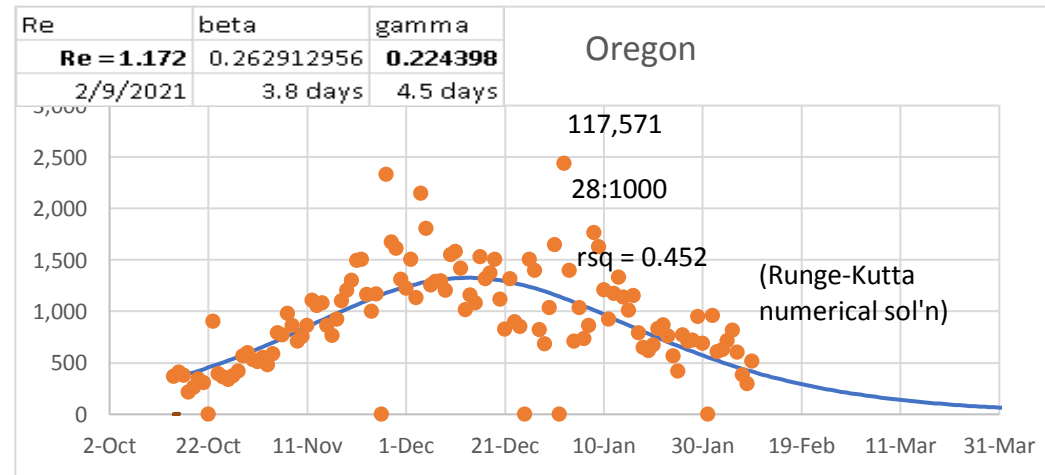
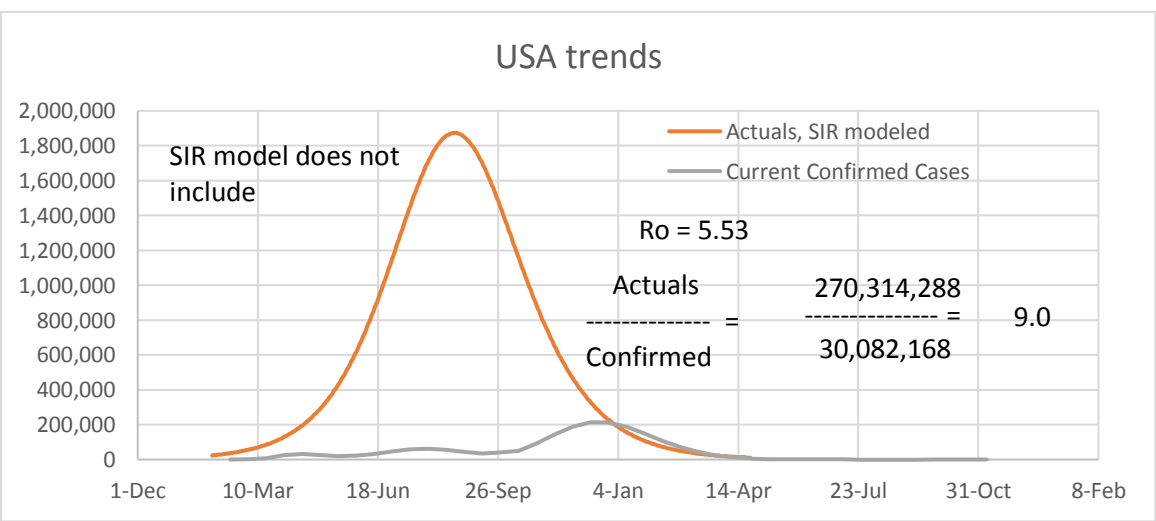
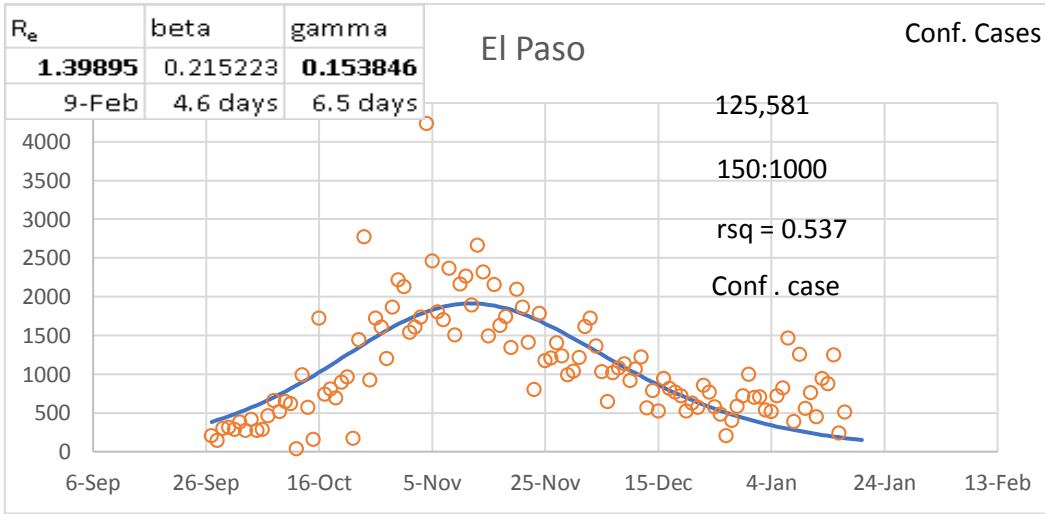
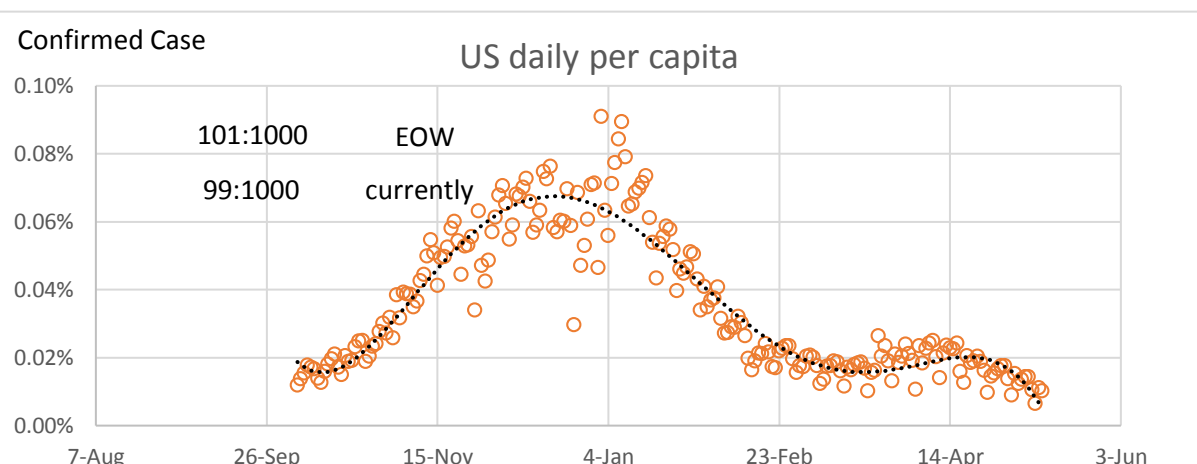
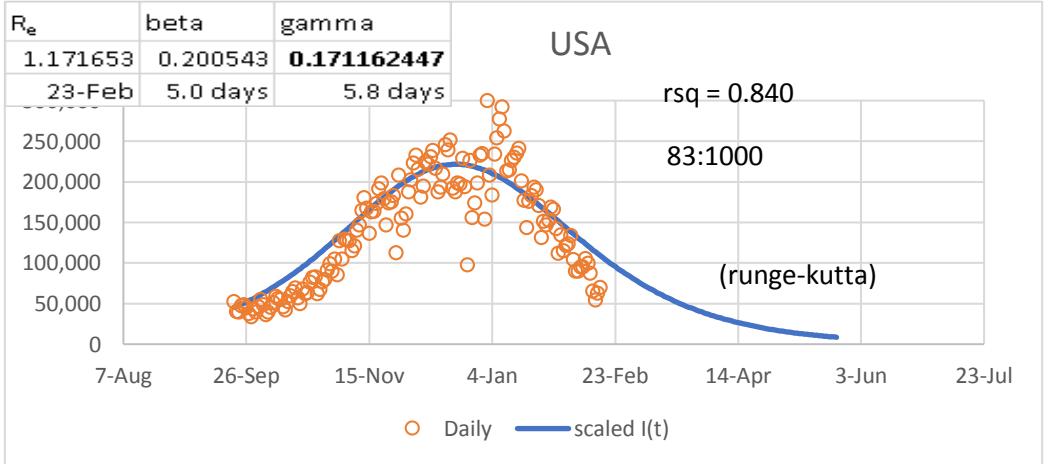
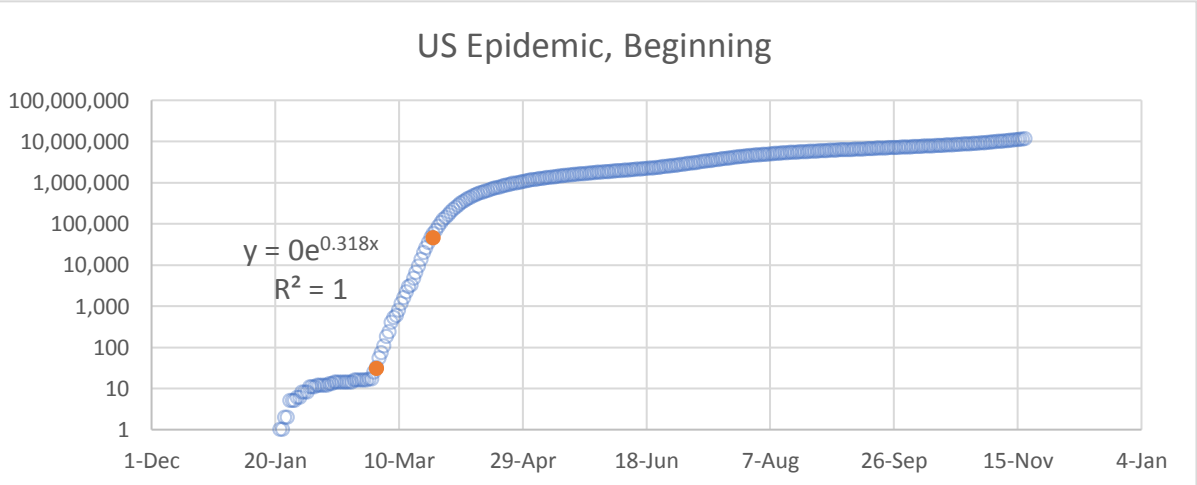
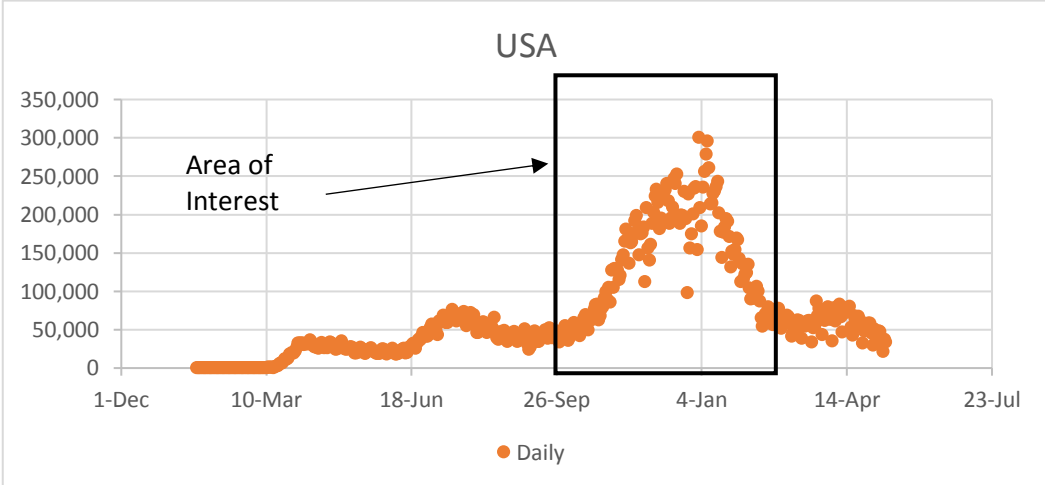
$\gamma = 0.171$ $R_o = \exp(K/\gamma) = 6.42$ 84%

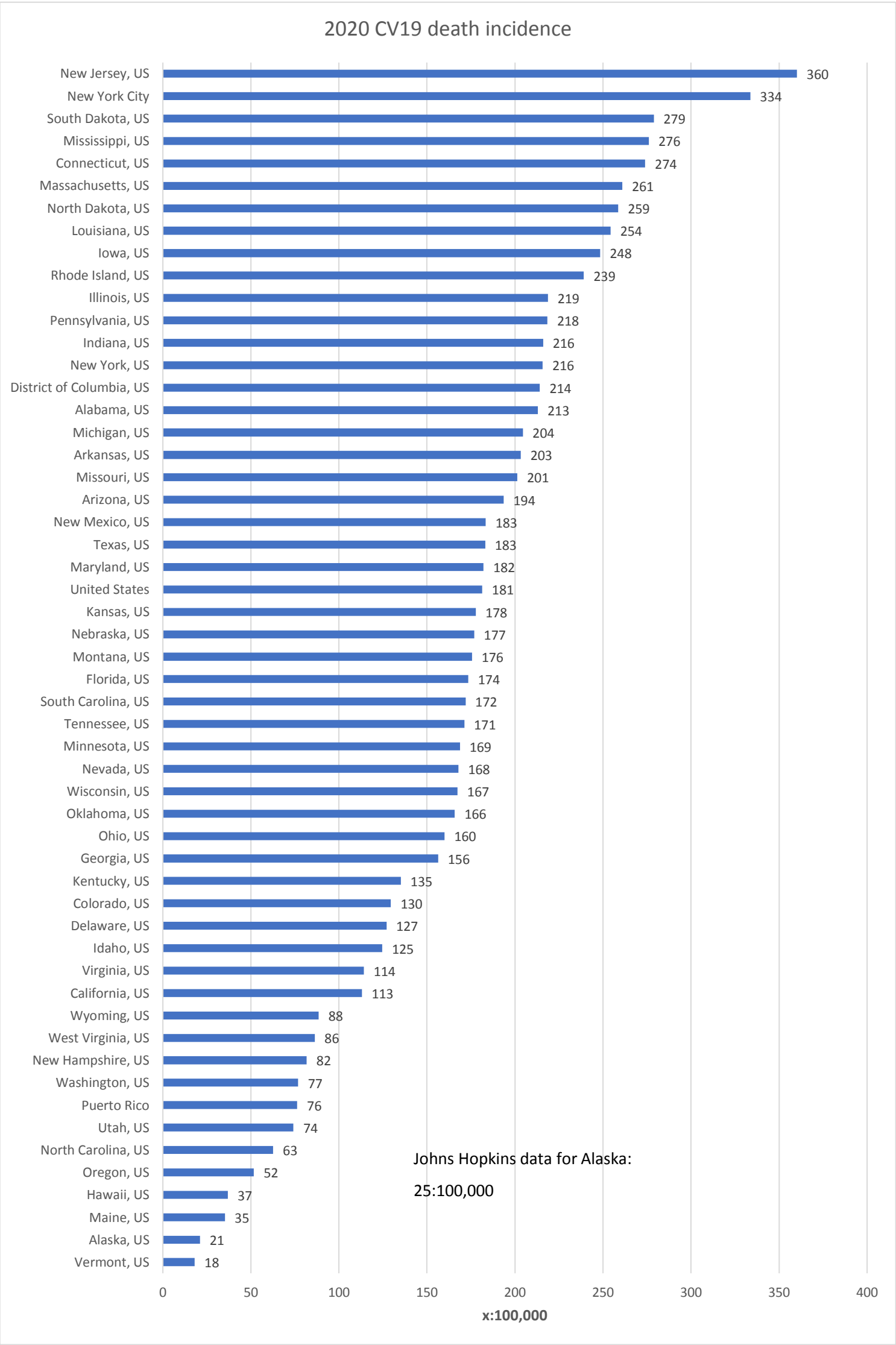
$\gamma = 0.286$ $R > 1 - 1/R_o = 3.04$ 67% \leq Herd immunity

R is recovered variable.



Here are some demonstrations of SIR model, using R_e , γ , and β





<https://data.cdc.gov/NCHS/Weekly-Counts-of-Deaths-by-State-and-Select-Causes/muzy-ite6/data>