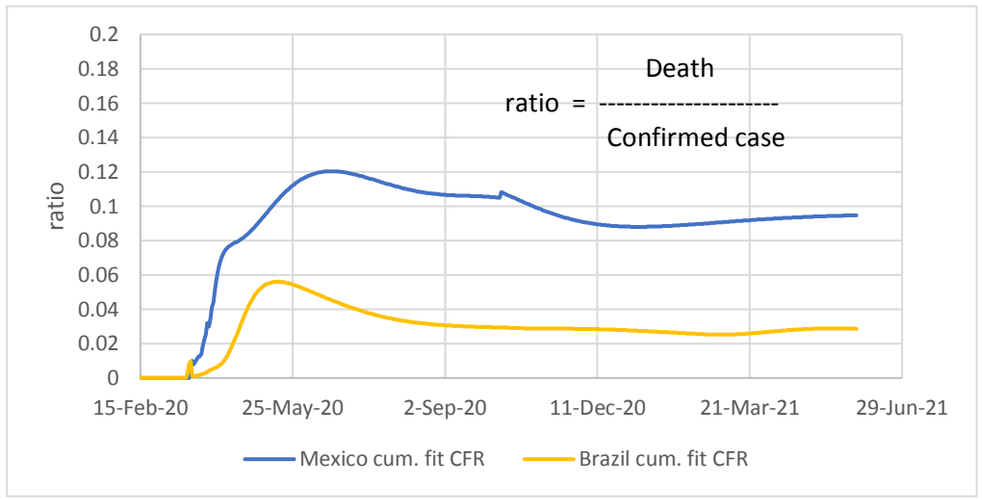
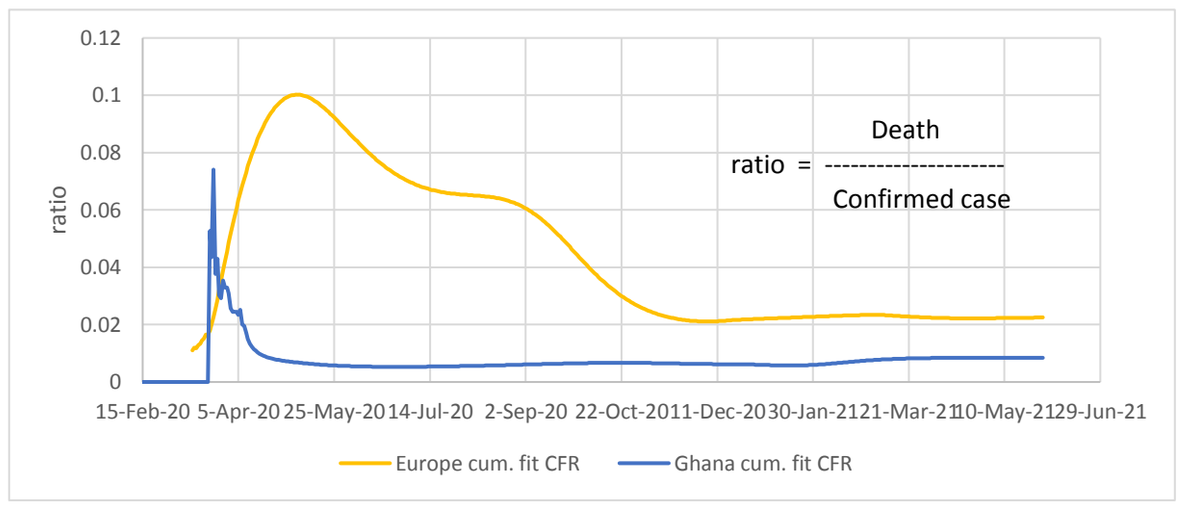
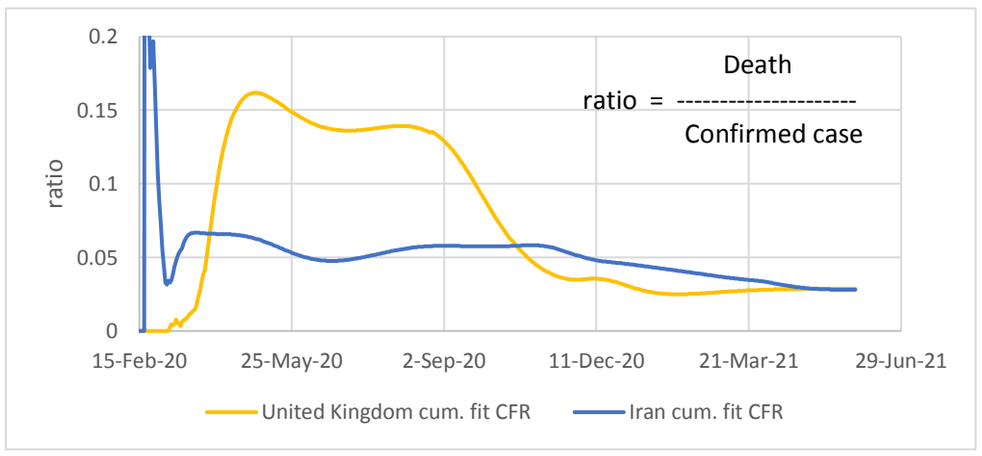
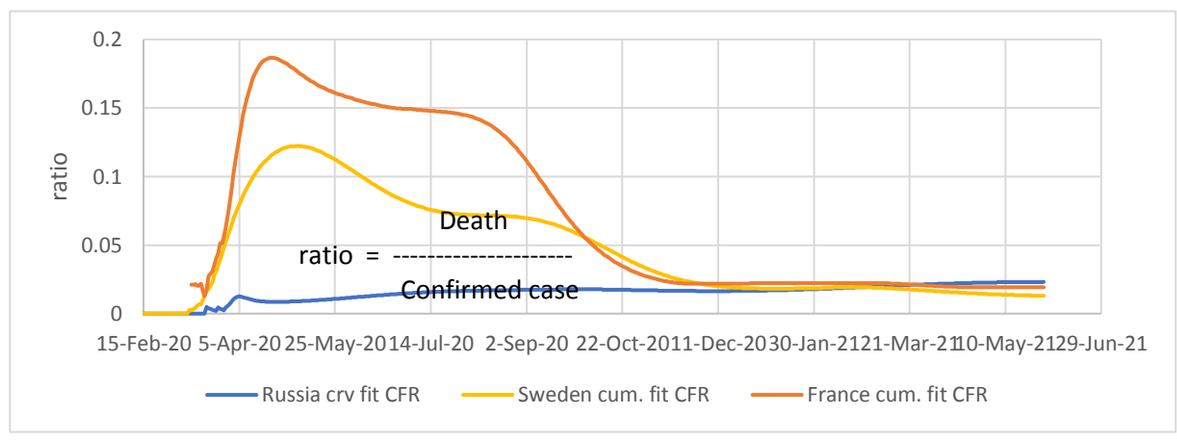
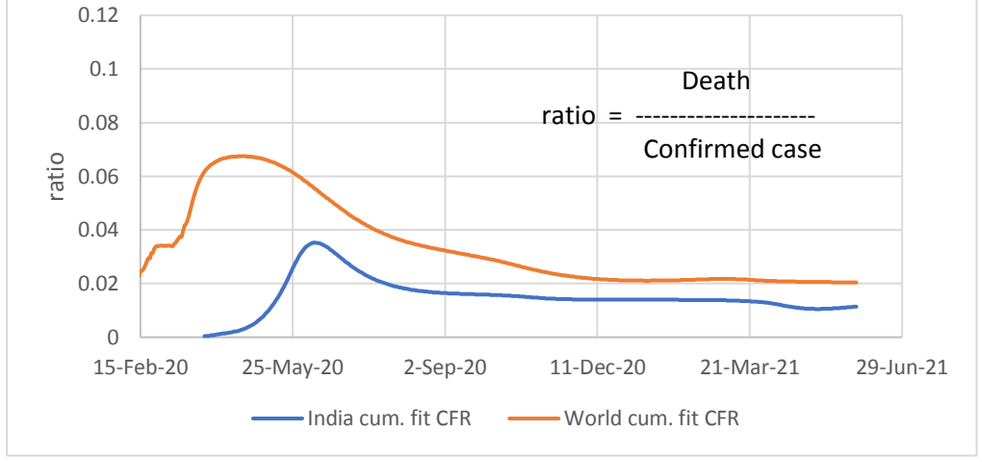
# Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)

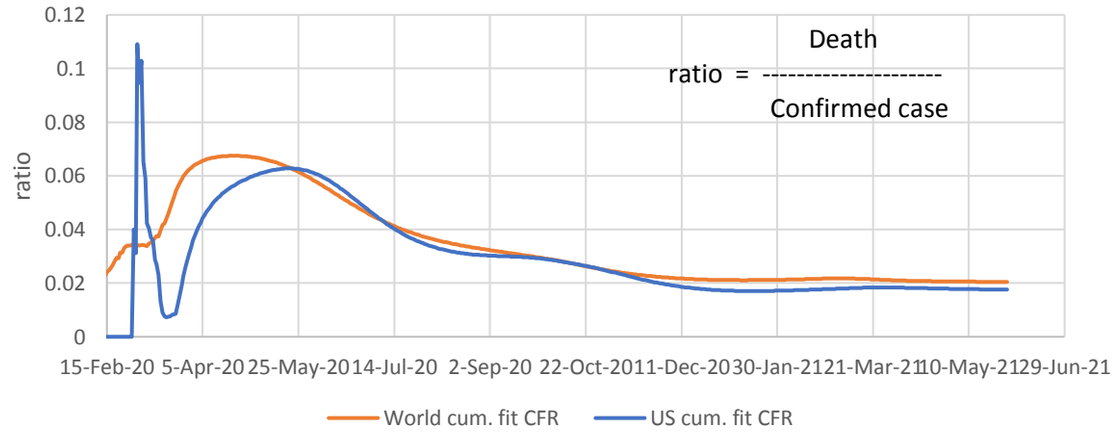


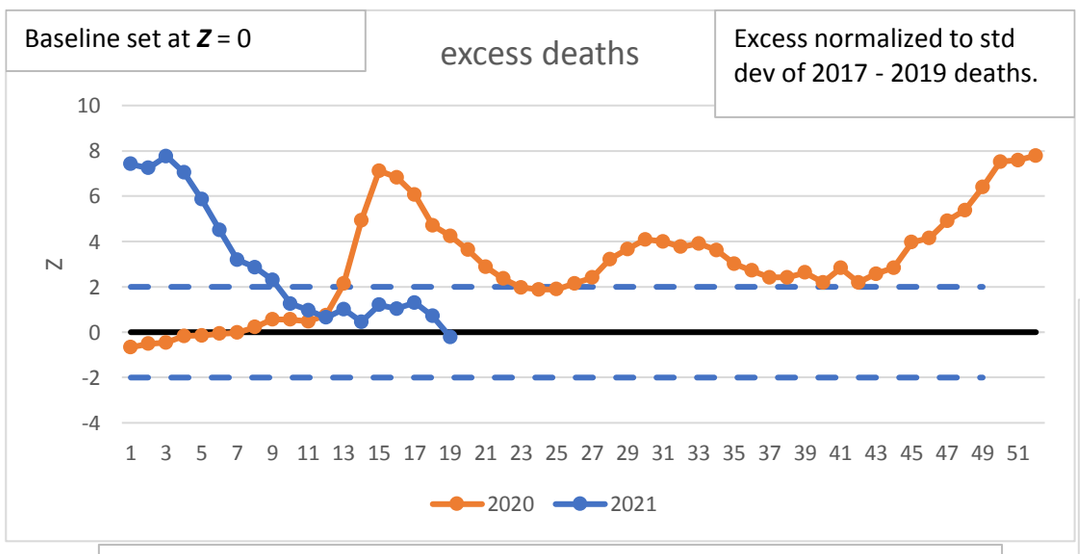



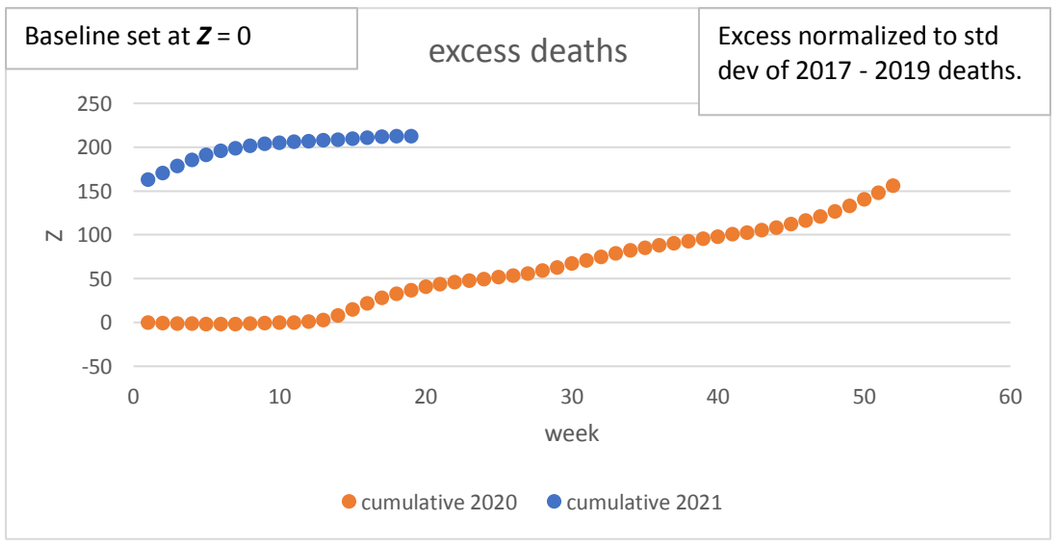




Excess deaths as a Z score:

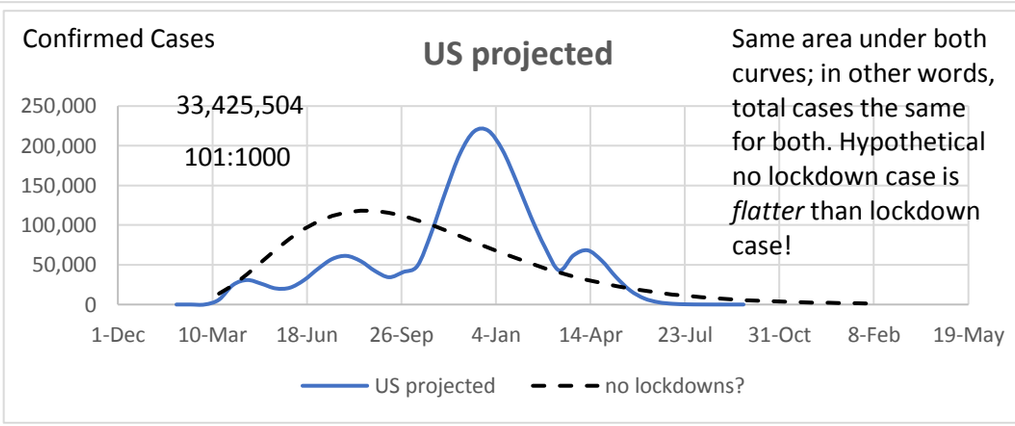



Above based on Z score of three year standard deviation from 2017-2019. What follows is cumulative plot of same.

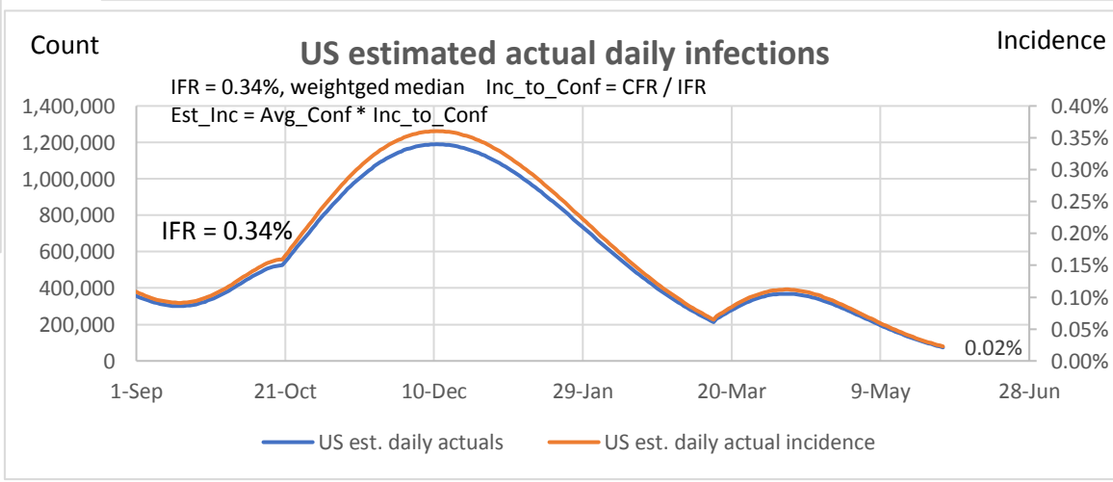
Data in recent weeks are incomplete. Only 60% of death records are submitted to NCHS within 10 days of the date of death, and completeness varies by jurisdiction. Data are not weighted and counts are likely




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




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




False Positives Demonstration

Use 0.04% as estimated daily incidence

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

0.04% X 14 = 0.560%

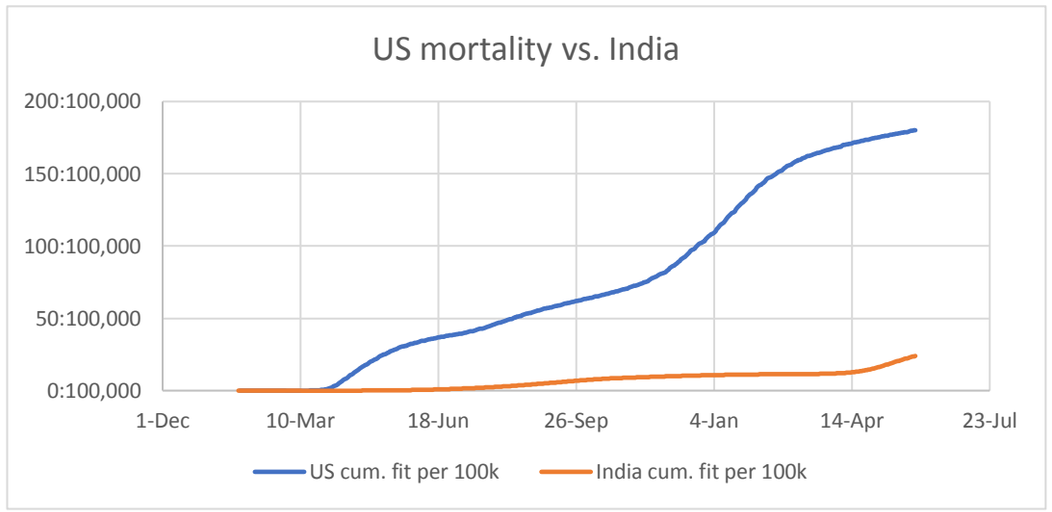
99% accuracy of test

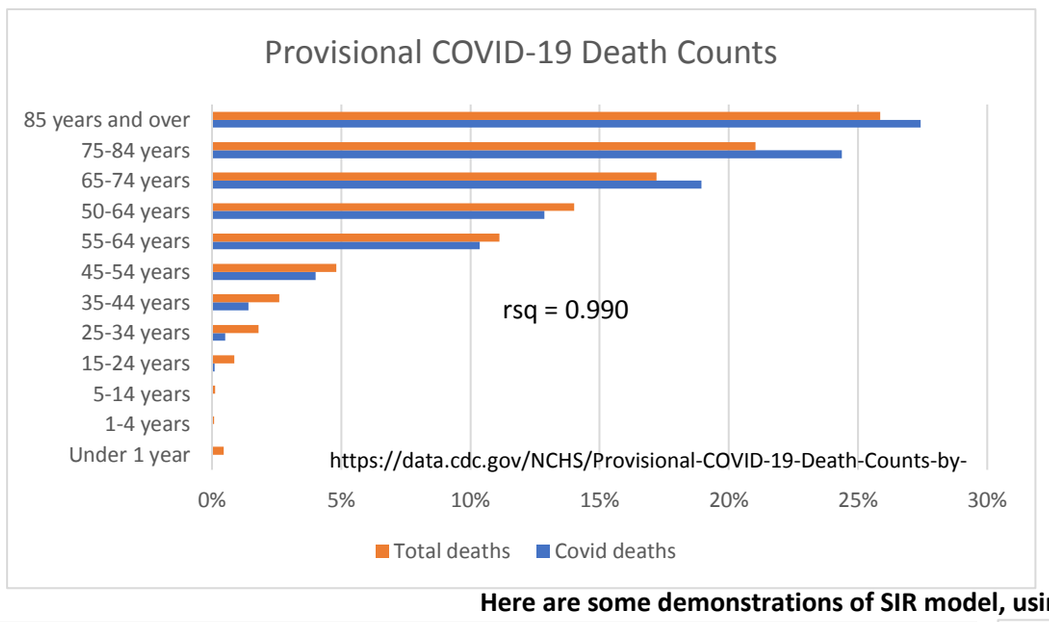
| | Positive | Negative | |
|---|---|---|---|
| test pos | 0.554% | 0.994% | 1.55% |
| test neg | 0.006% | 98.446% | 98.45% |
| | 0.560% | 99.440% | 100.00% |

False pos. is more than half of total positives.

| | | |
|---|---|---|
| TRUE + | 0.554%/1.55% | 35.8% |
| FALSE + | 0.994%/1.55% | 64.2% |
| 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 | 1017:100,000 | 905:100,000 | - |
| Diff. | 157:100,000 | 46:100,000 | 111:100,000 |

| 3 yr average |
|---|
| 859:100,000 |

29% of All-Cause excess deaths are non-CV19

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

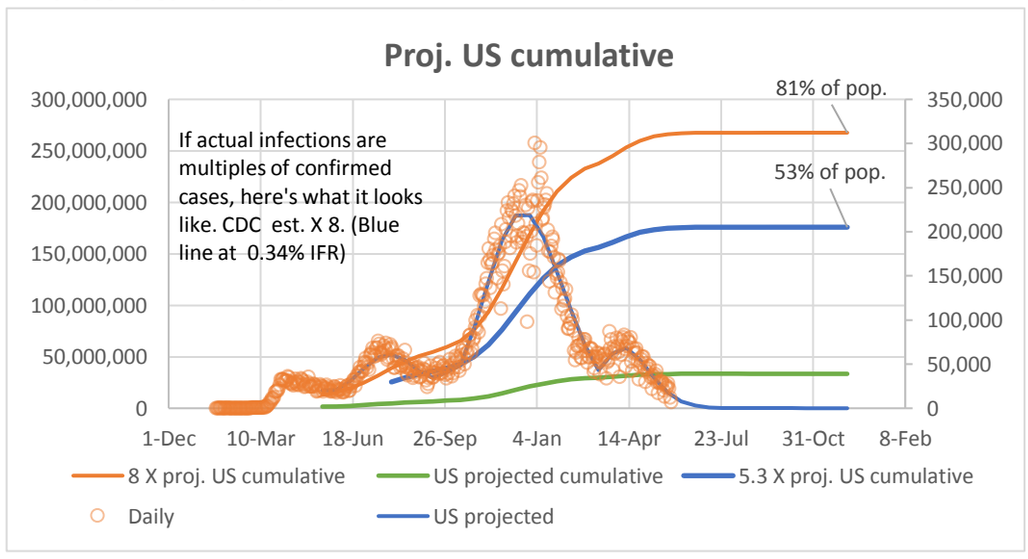
$K$ = 0.318 $R_o$: $R$ :

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

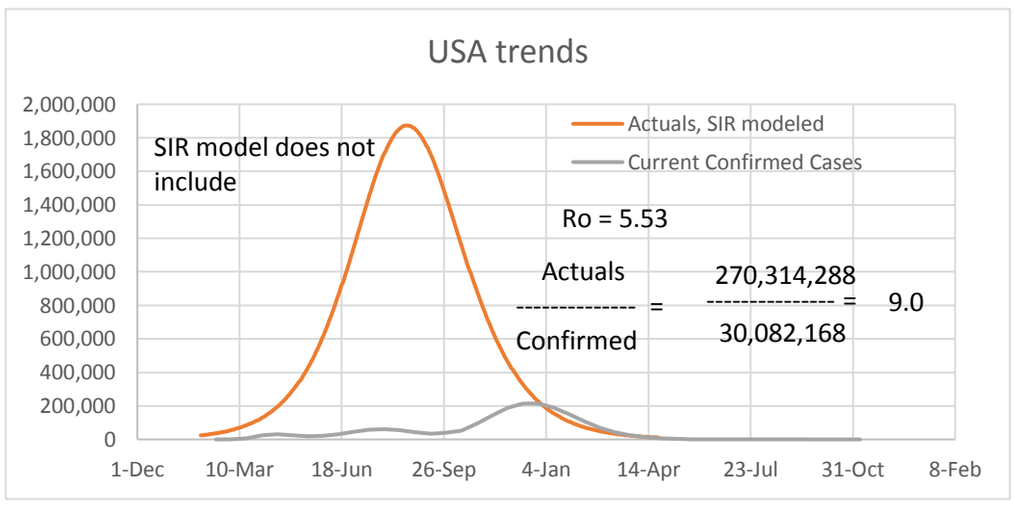
gamma = 0.286 $R$ > 1- 1/$R_o$ = 3.04 67%

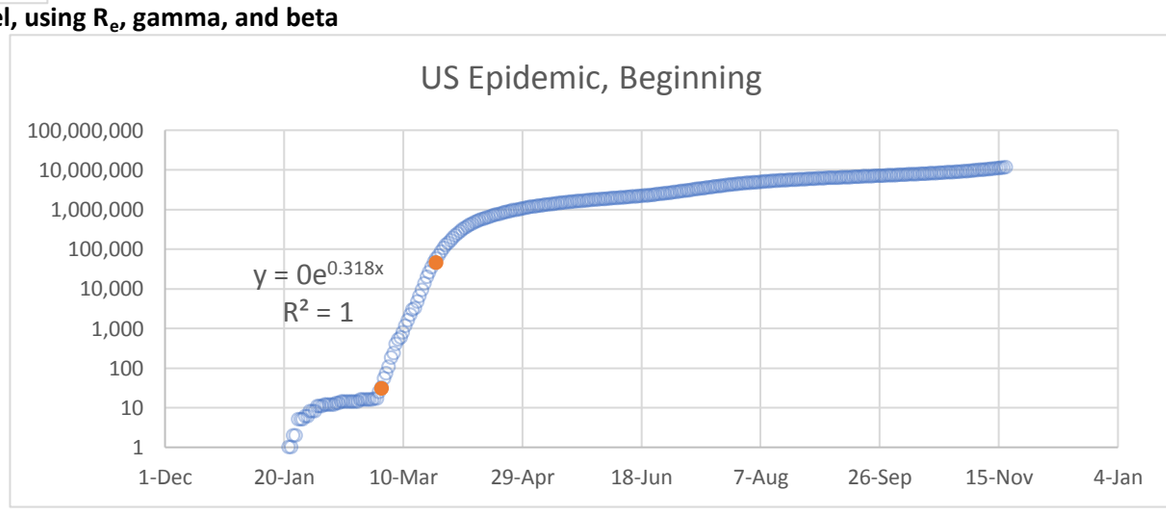
<=Herd immunity

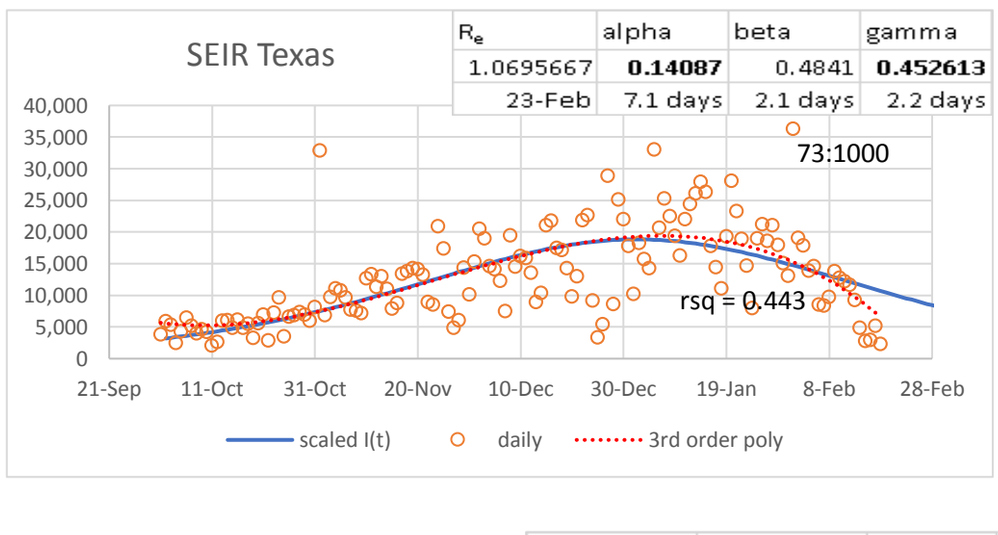
$R$ is *recovered* variable.

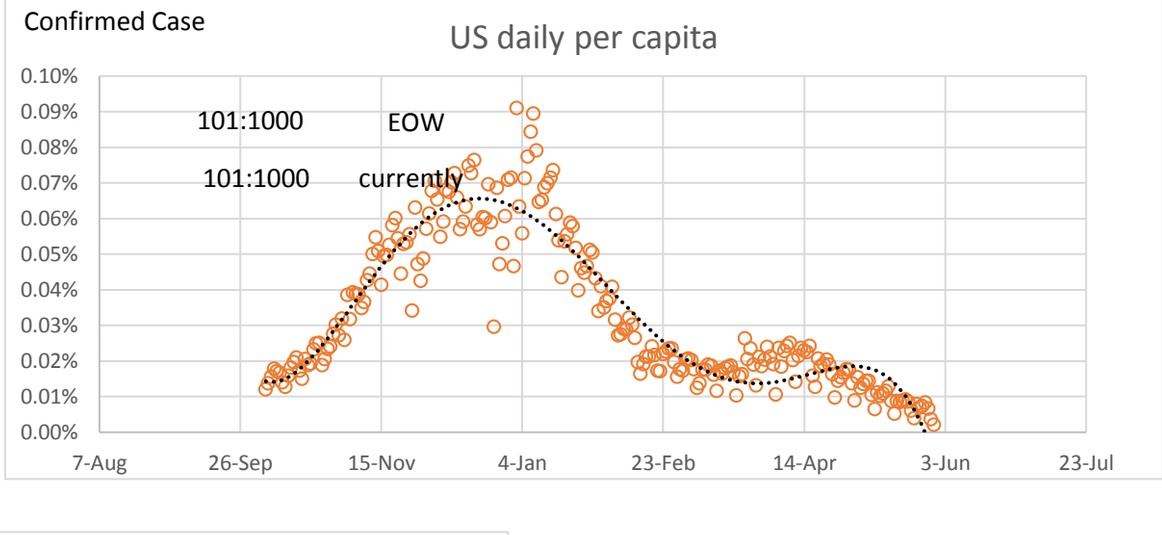


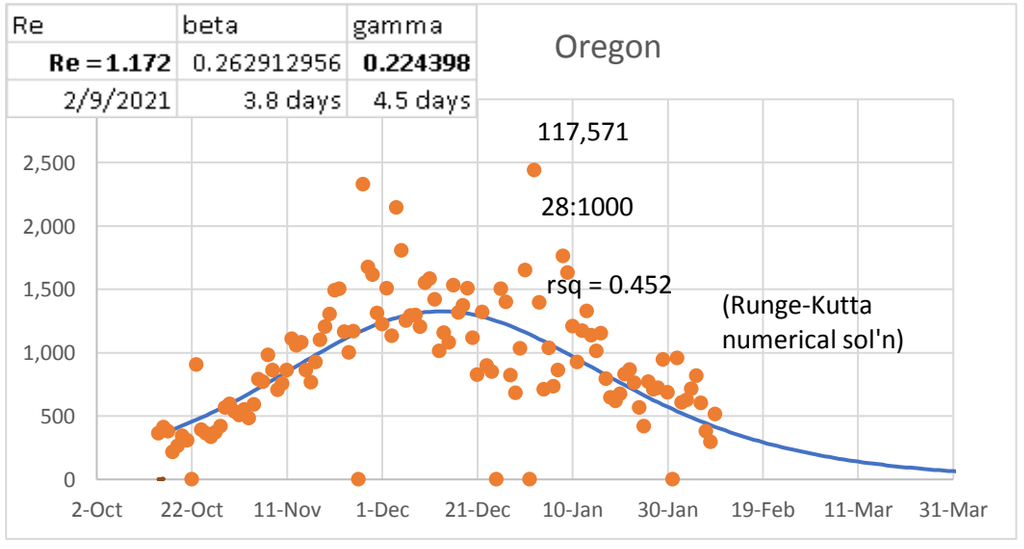

**Here are some demonstrations of SIR model, using $R_e$, gamma, and beta**

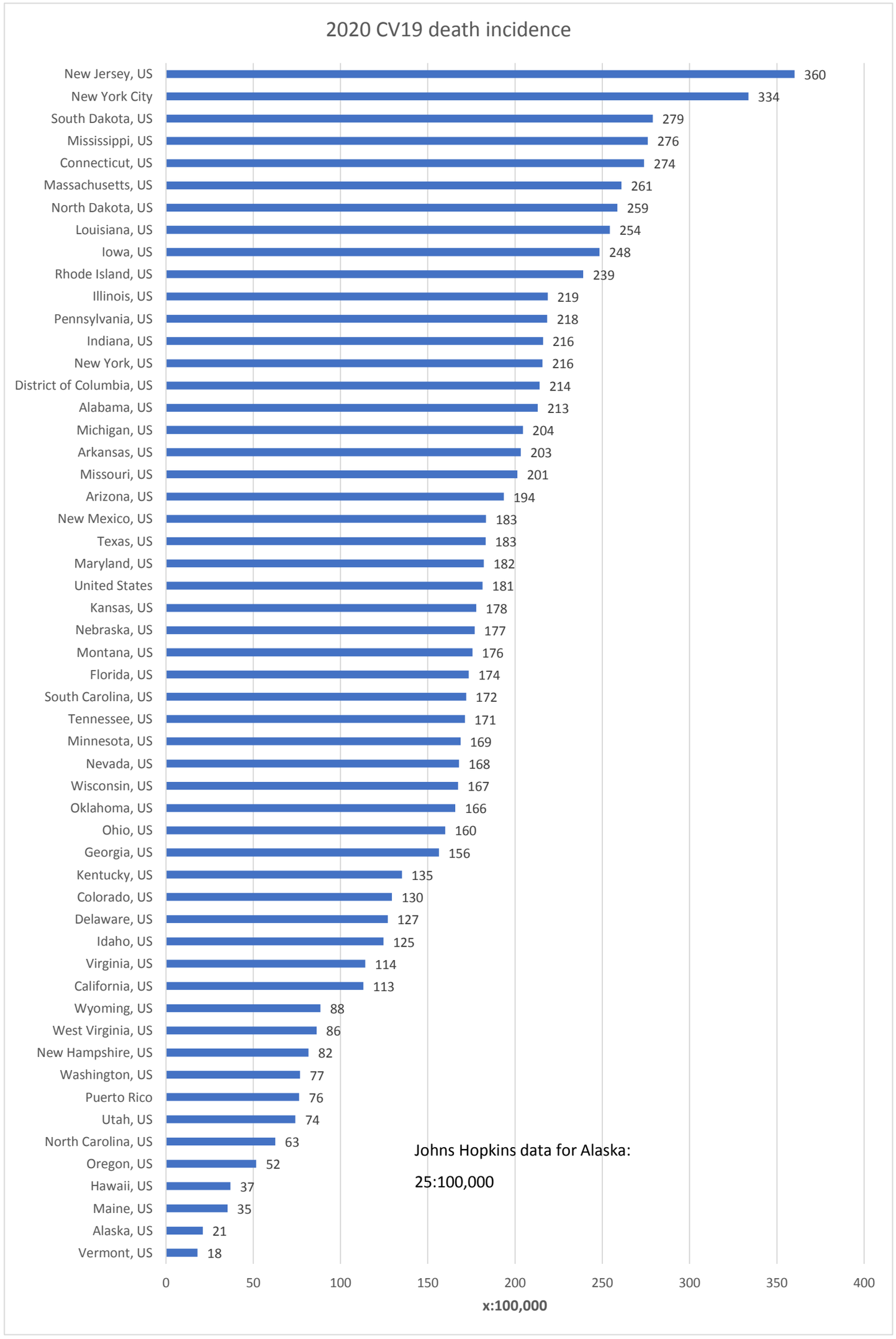





https://data.cdc.gov/NCHS/Weekly-Counts-of-Deaths-by-State-and-Select-Causes/muzy-jte6/data