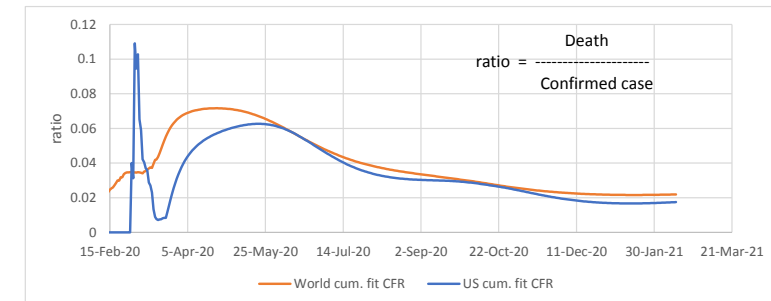
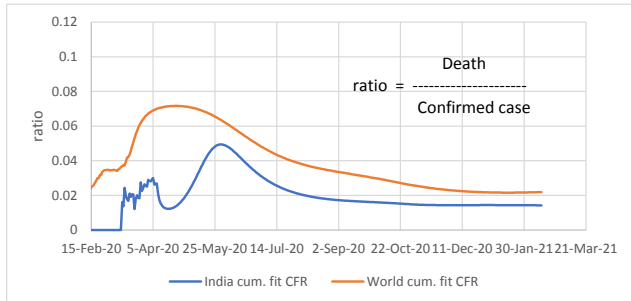
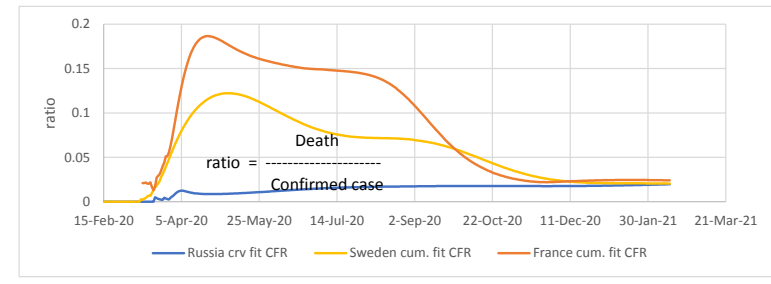
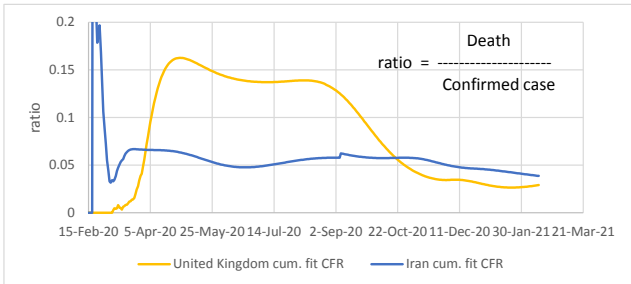
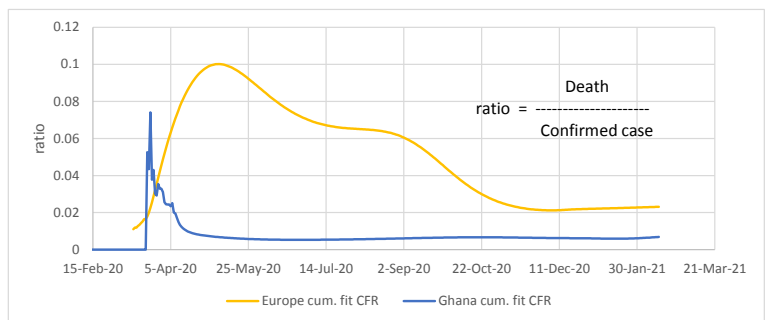
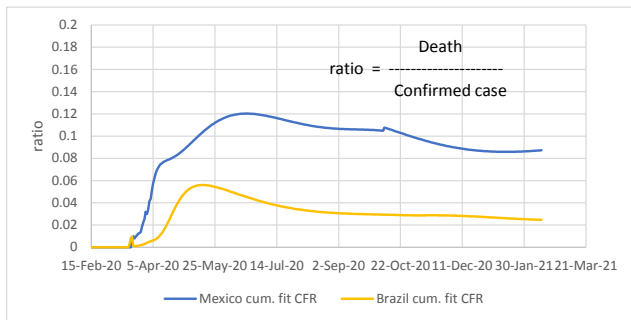
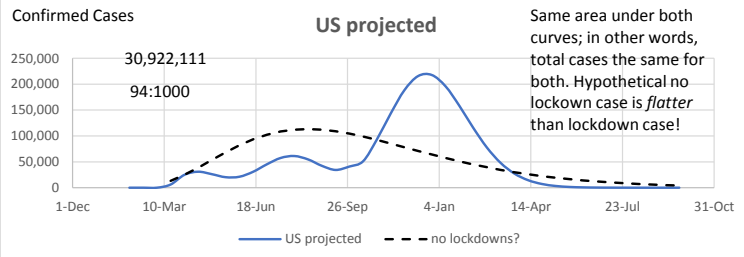
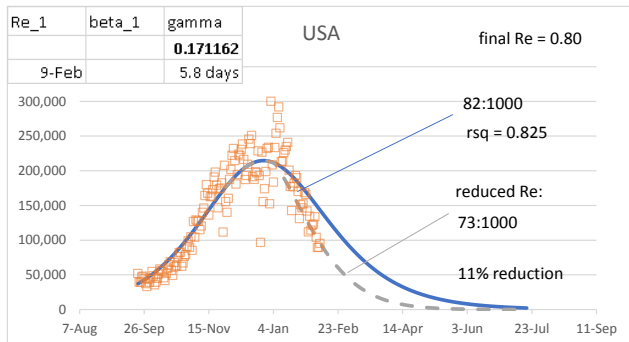


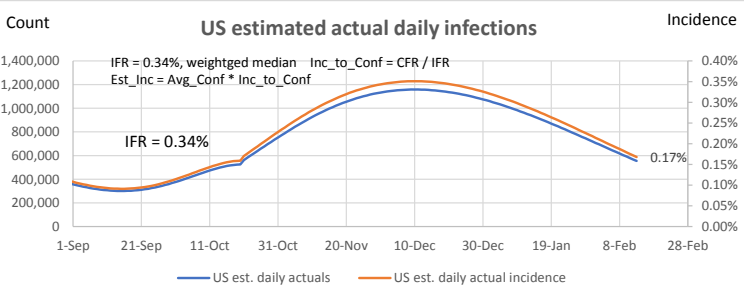
Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)



Demonstration of SIR model where R_e is linearly reduced to 0.80 at the end of the sequence:



Reducing the R_e while keeping gamma constant is the same as reducing contact rate. Contact rate is reduced through isolation, lockdowns, and vaccinations. Seems to indicate timing of start of measures is a big factor. The orange data taken as without measures, but we know certain measures were taken. Hard to determine effect, without a basis of comparison.



False Positives Demonstration

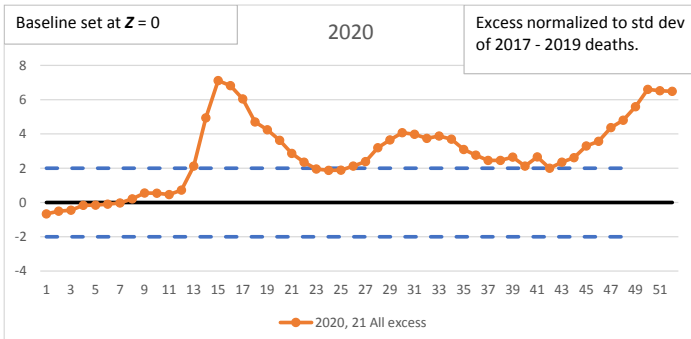
Use 0.17% from US est. incidence above as estimated daily incidence
Prevalence estimated as avg. infected period of 2 weeks X incidence

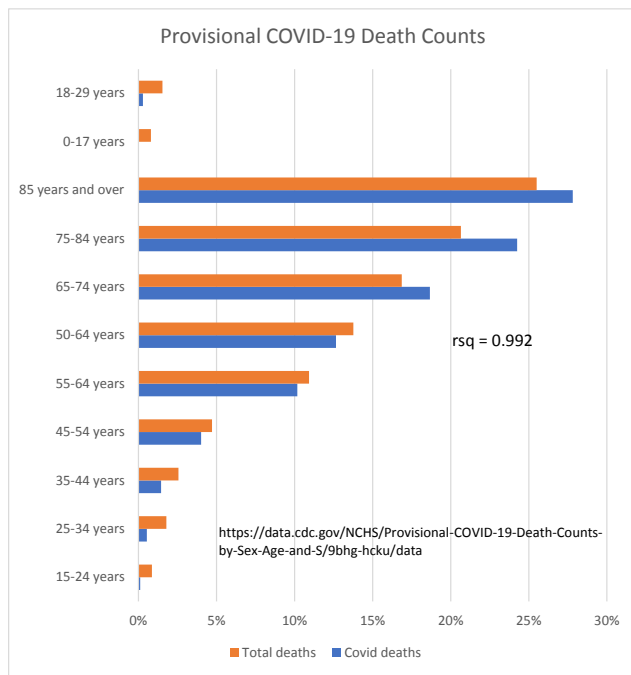
| 99% accuracy of test | | |
|----------------------|----------|---------|
| Positive | Negative | |
| test pos | 2.356% | 0.976% |
| test neg | 0.024% | 96.644% |
| | 2.380% | 97.620% |
| | | 100.00% |

False pos. is more than a 1/4 of total positives.

| | | |
|---------|--------------|---------|
| TRUE + | 2.356%/3.33% | 70.7% |
| FALSE + | 0.976%/3.33% | 29.3% |
| 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 | 1009:100,000 | 899:100,000 | - |
| Diff. | 150:100,000 | 40:100,000 | 110:100,000 |

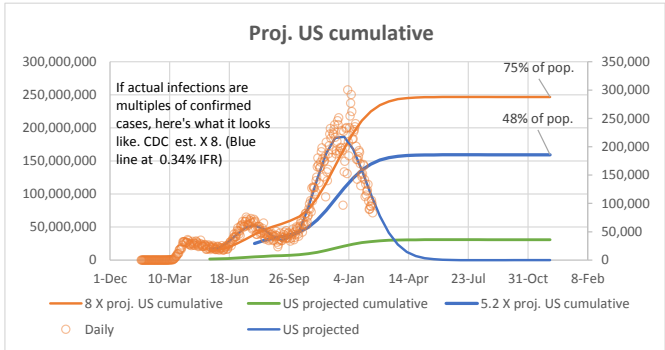
| |
|--------------|
| 3 yr average |
| 859:100,000 |

27% of All-Cause excess deaths are non-CV19

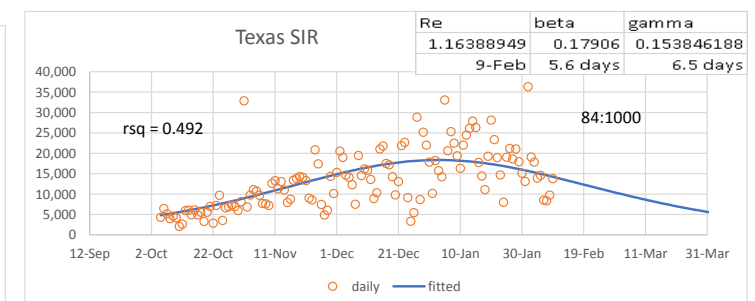
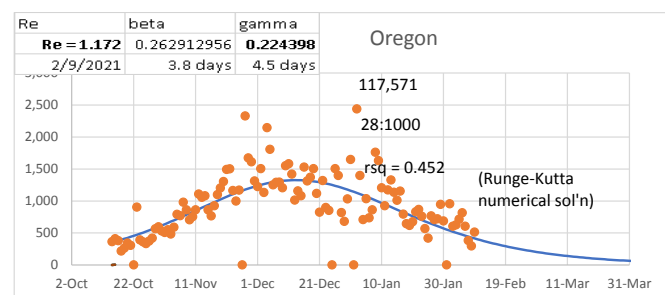
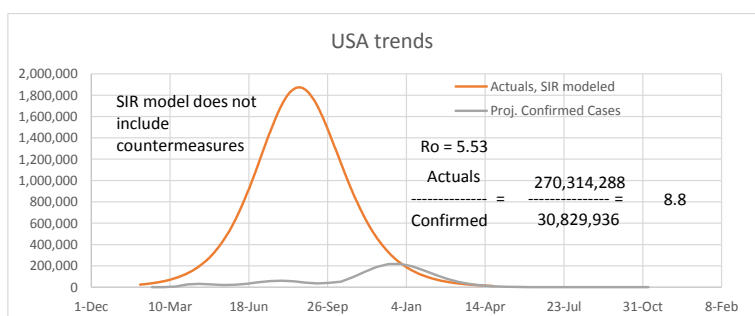
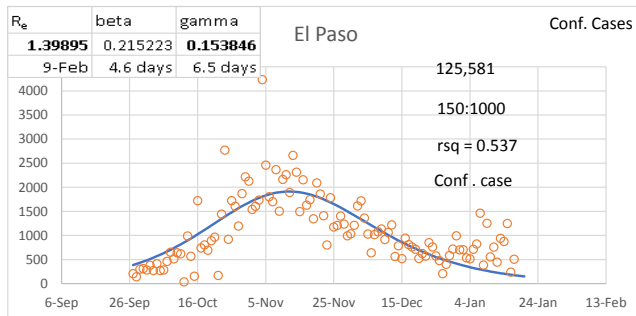
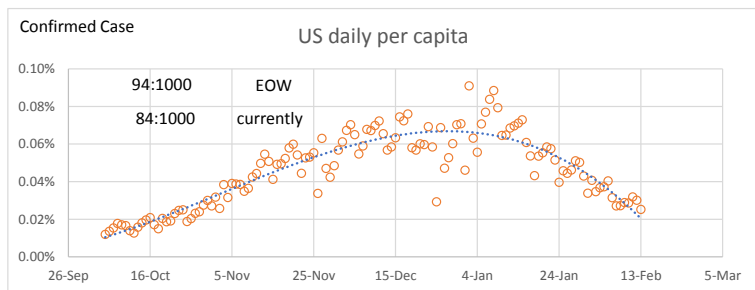
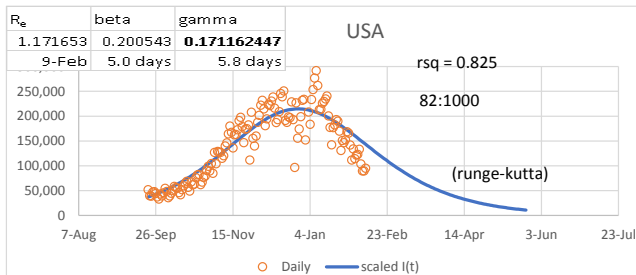
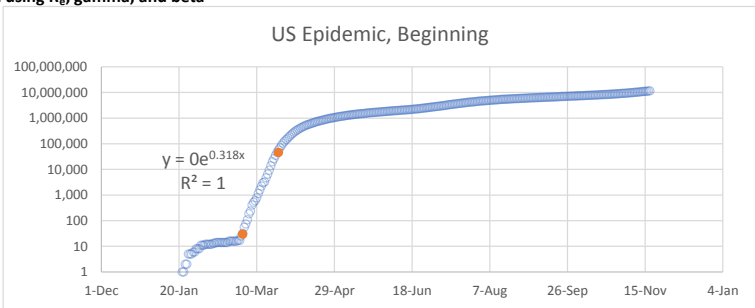
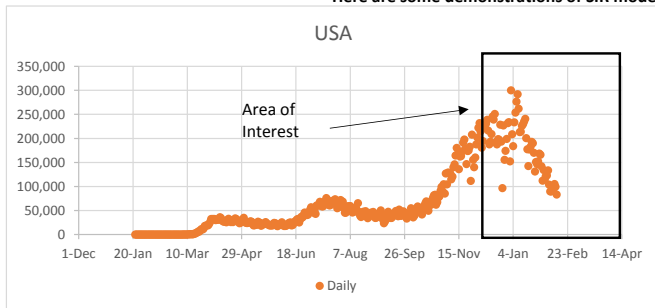
<https://data.cdc.gov/NCHS/Excess-Deaths-Associated-with-COVID-19/xkxf-xrst/data>

$K = 0.318$
 $\gamma = 0.171$ $R_o = \exp(K/\gamma) = 6.42$ 84% <= Herd immunity
 $\gamma = 0.286$ $R > [1 - 1/R_o] / N = 3.04$ 67%

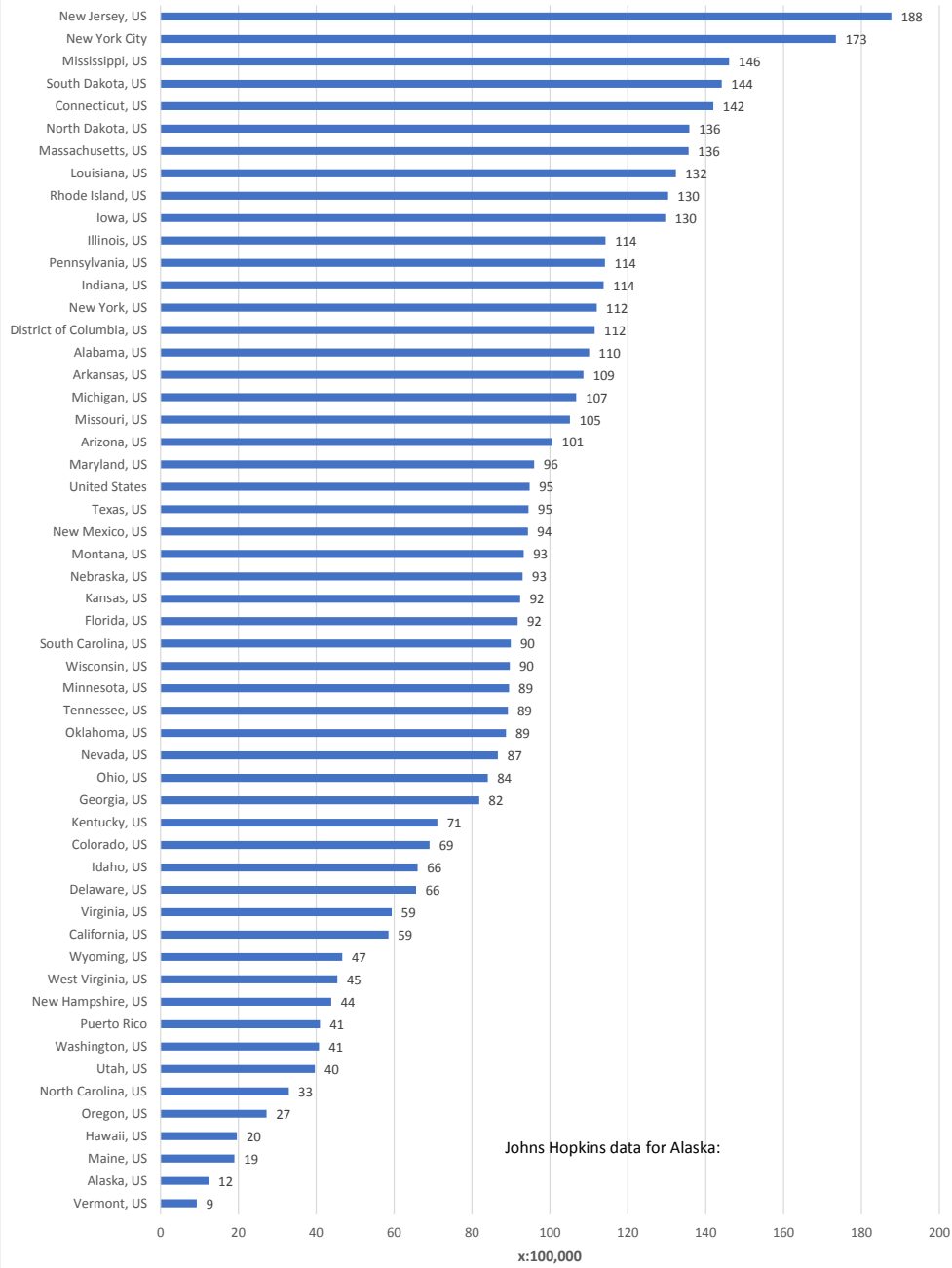
R is recovered variable.



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



2020 CV19 death incidence



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