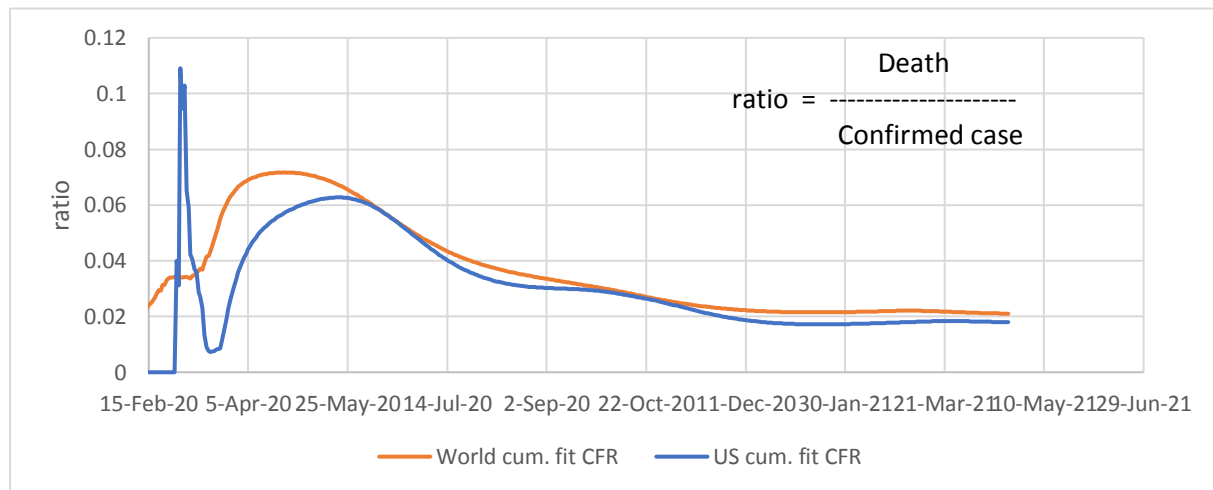
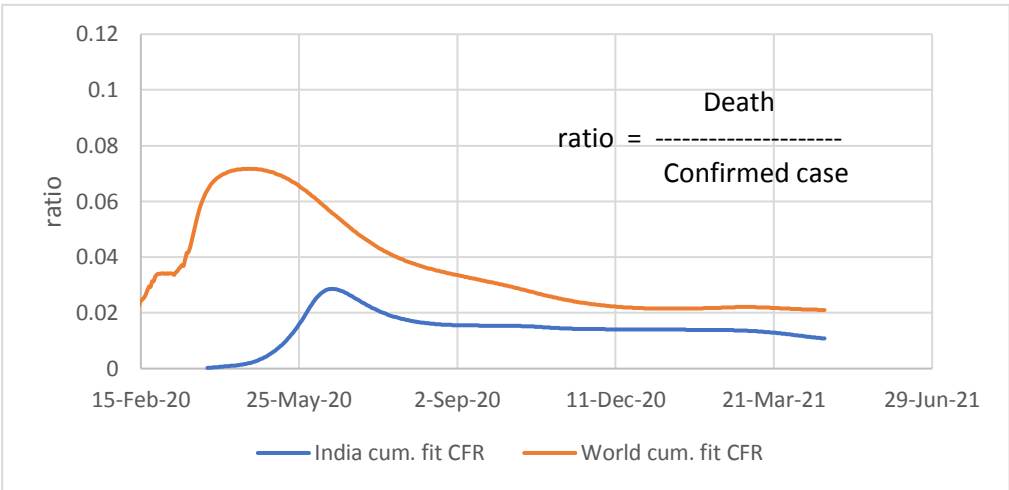
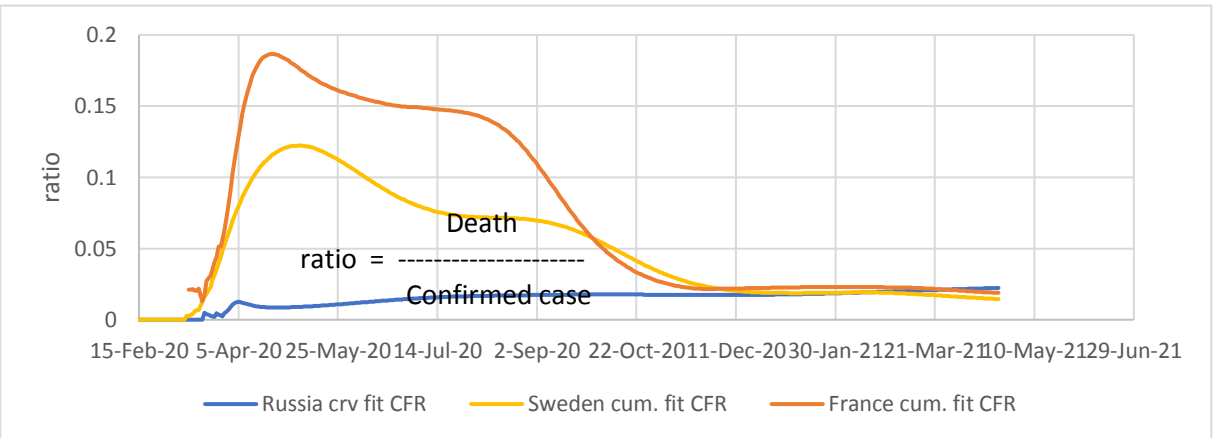
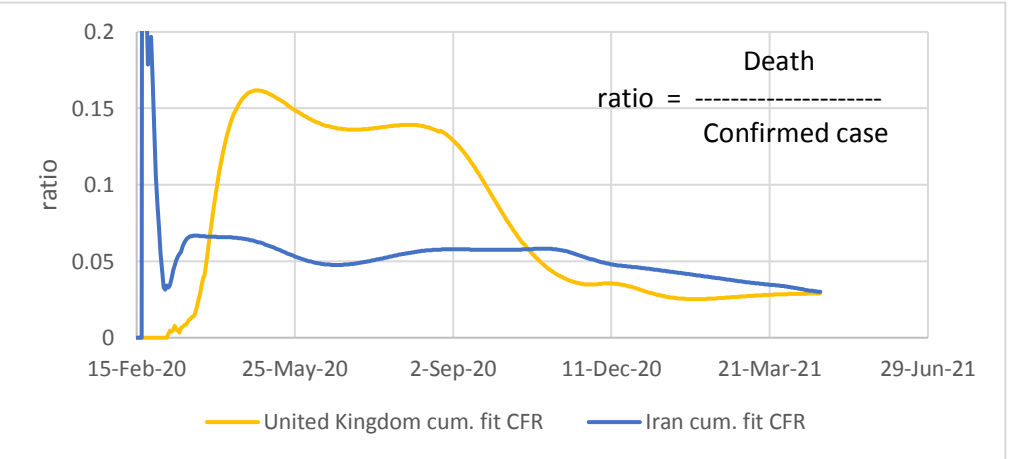
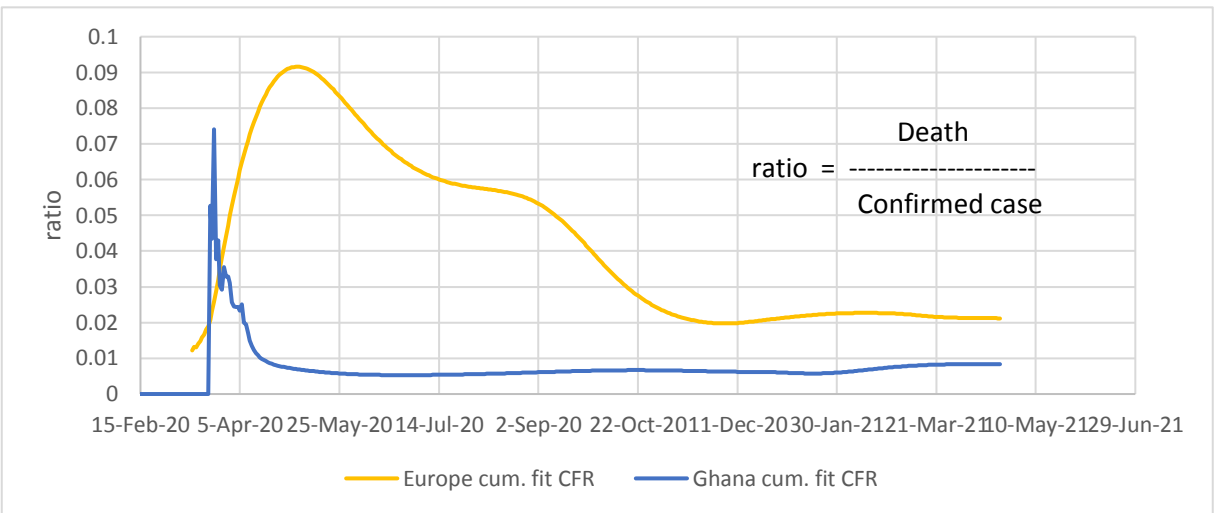
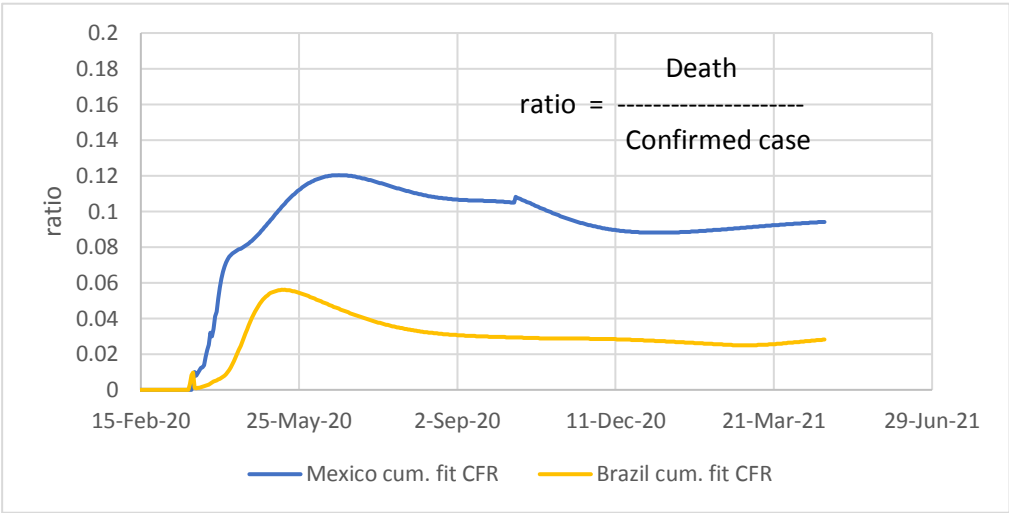
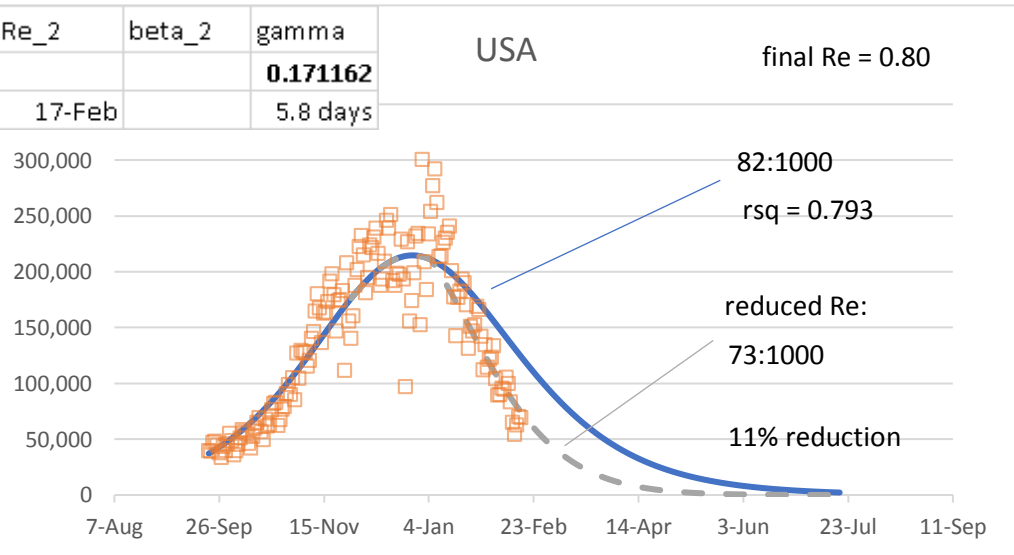


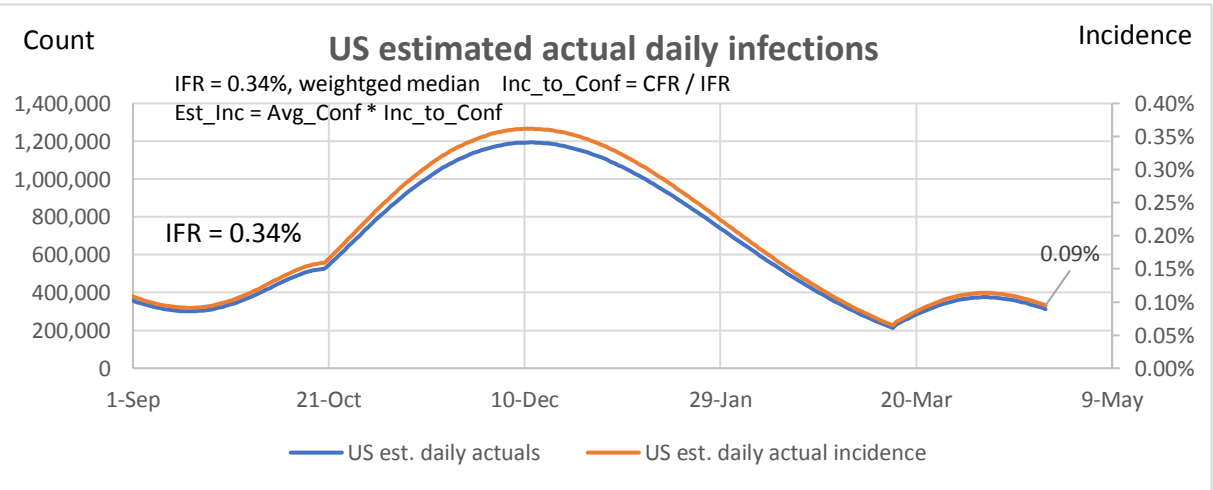
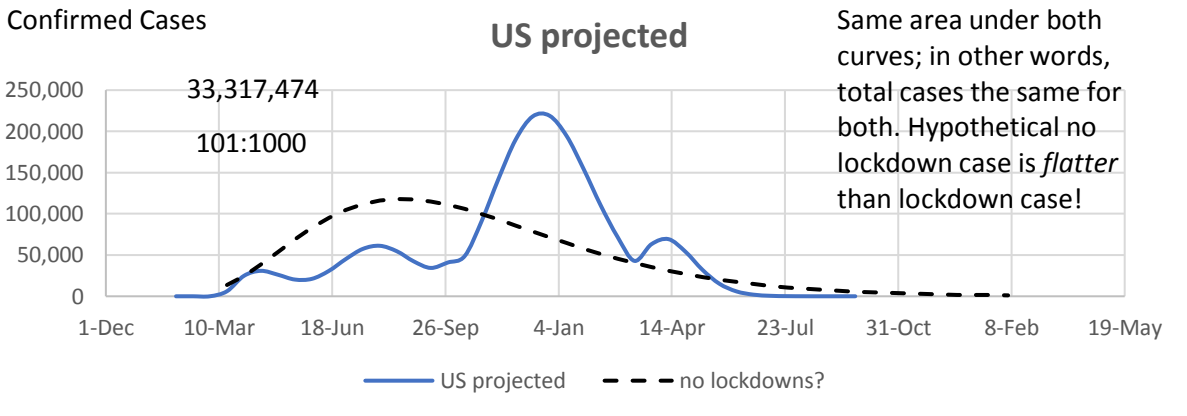
Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)



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.



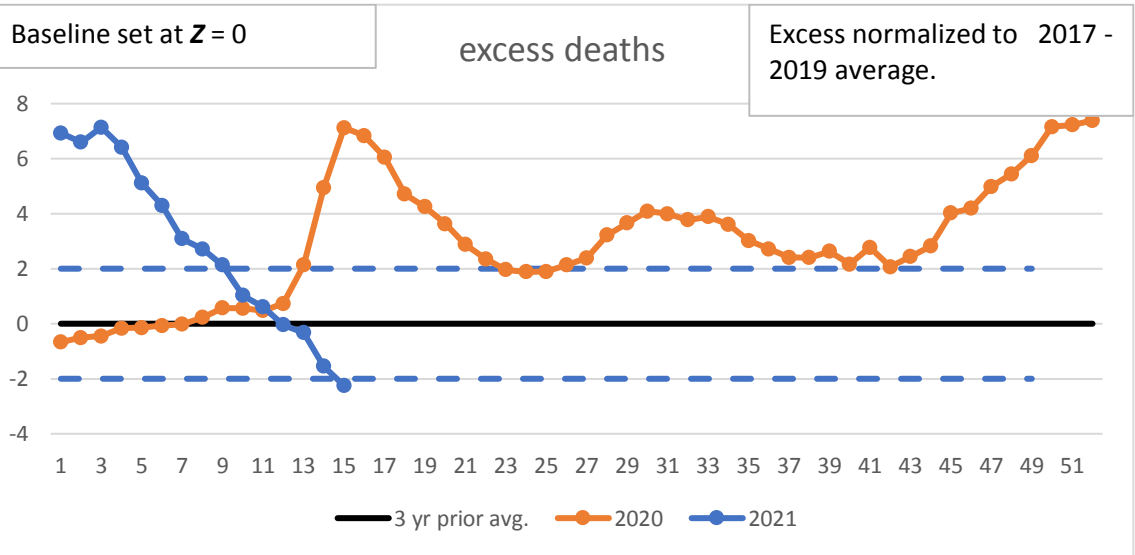
False Positives Demonstration

Use 0.09% from US est. incidence above as estimated daily incidence
Prevalence estimated as avg. infected period of 2 weeks X incidence
99% accuracy of test 0.09% X 14 = 1.260%

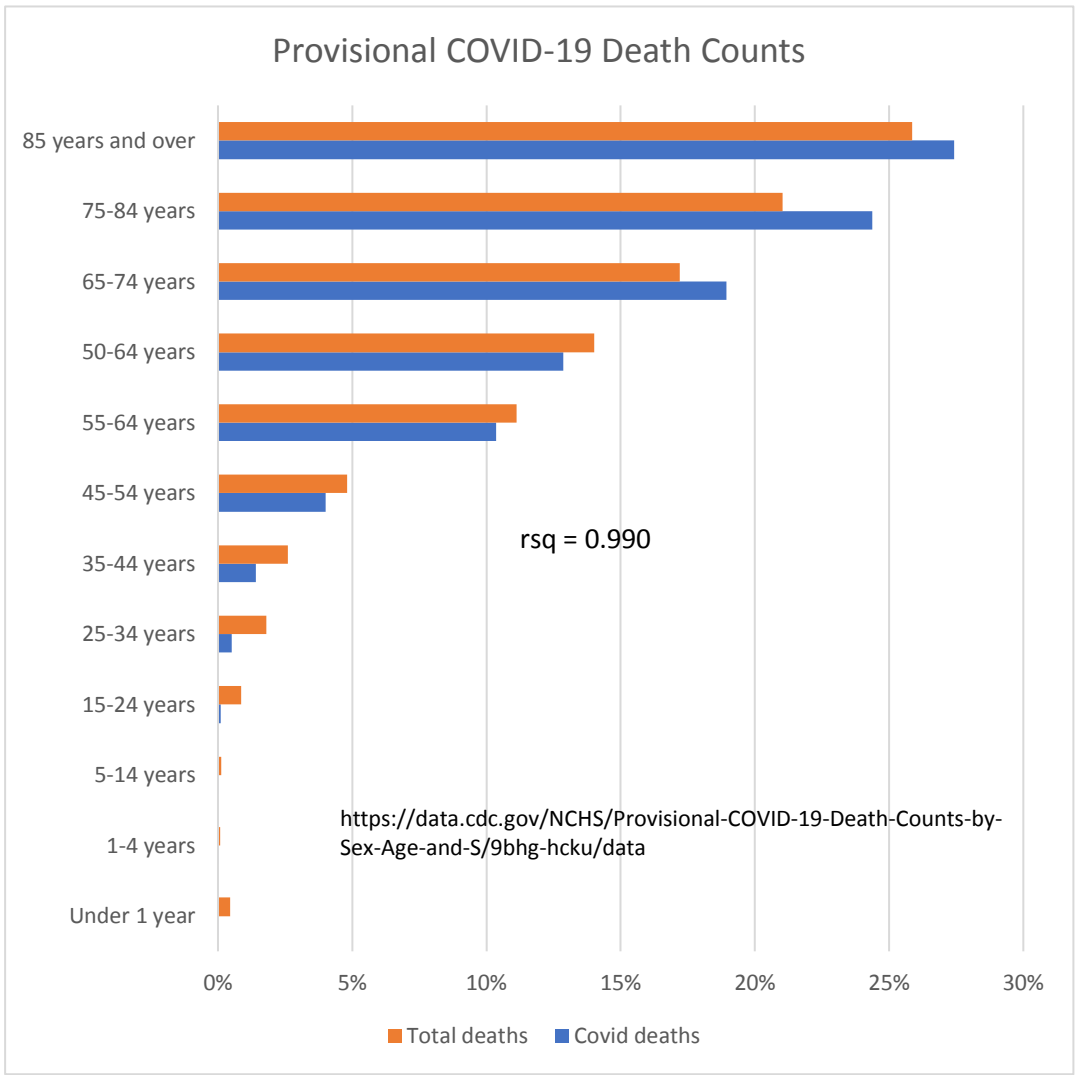
	Positive	Negative	
test pos	1.247%	0.987%	2.23%
test neg	0.013%	97.753%	97.77%
	1.260%	98.740%	100.00%

False pos. is less than half of total positives.
TRUE + 1.247%/2.23% 55.8%
FALSE + 0.987%/2.23% 44.2%
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.



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



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	1015:100,000	904:100,000	-
Diff.	156:100,000	45:100,000	111:100,000

3 yr average
859:100,000

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

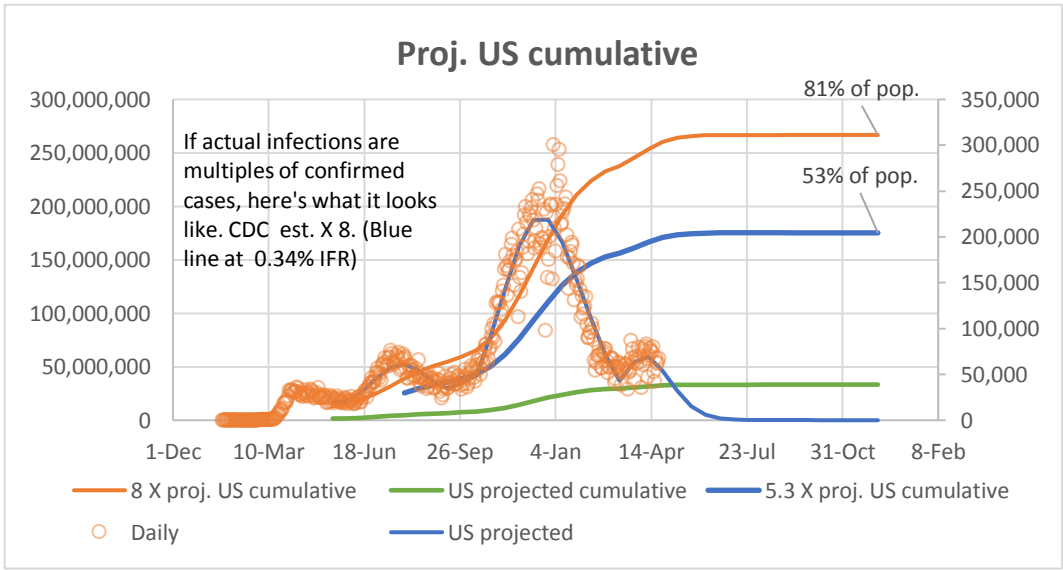
<https://data.cdc.gov/NCHS/Excess-Deaths-Associated-with-COVID-19/xkxf-xrst/data>

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

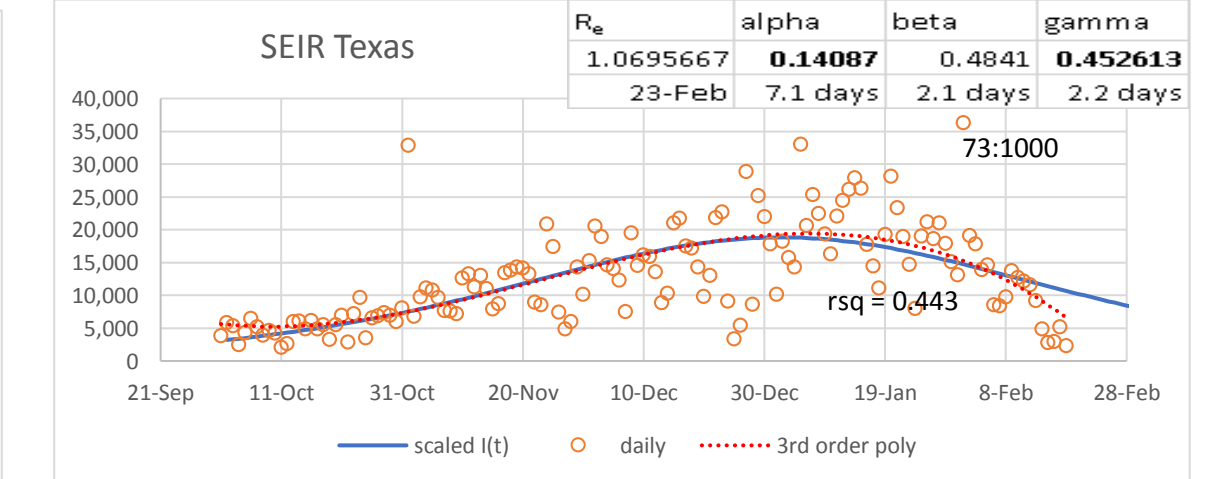
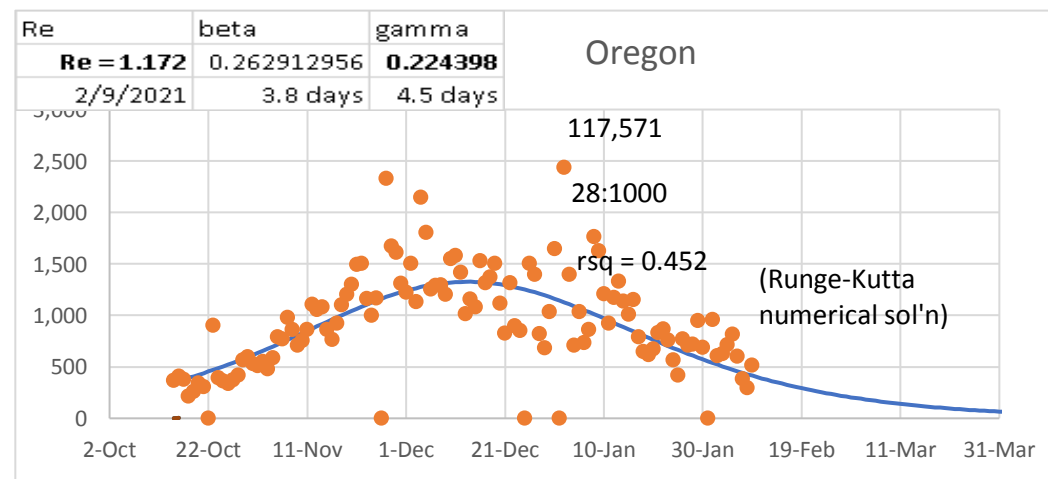
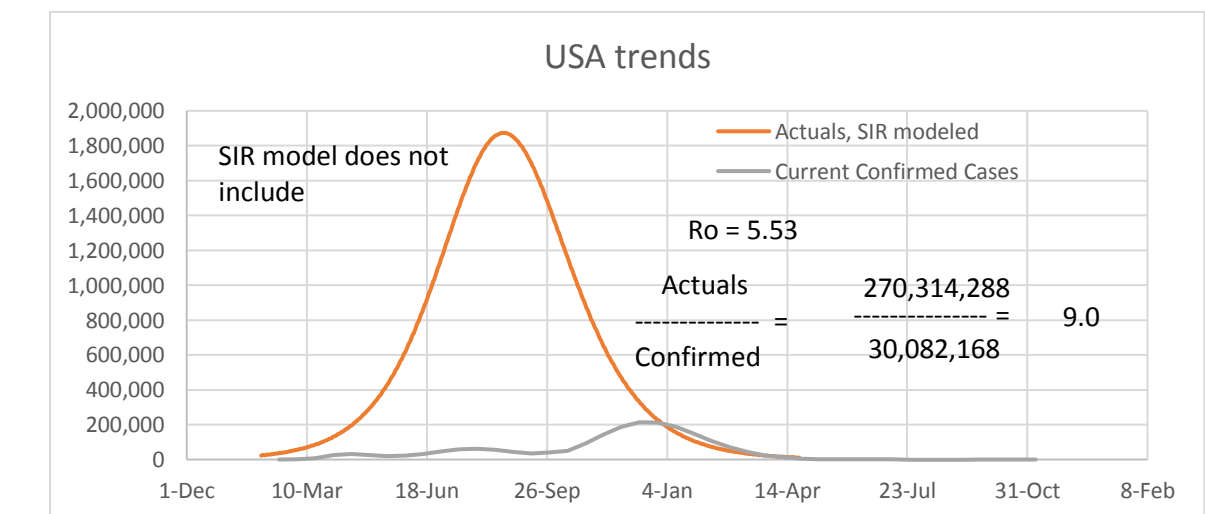
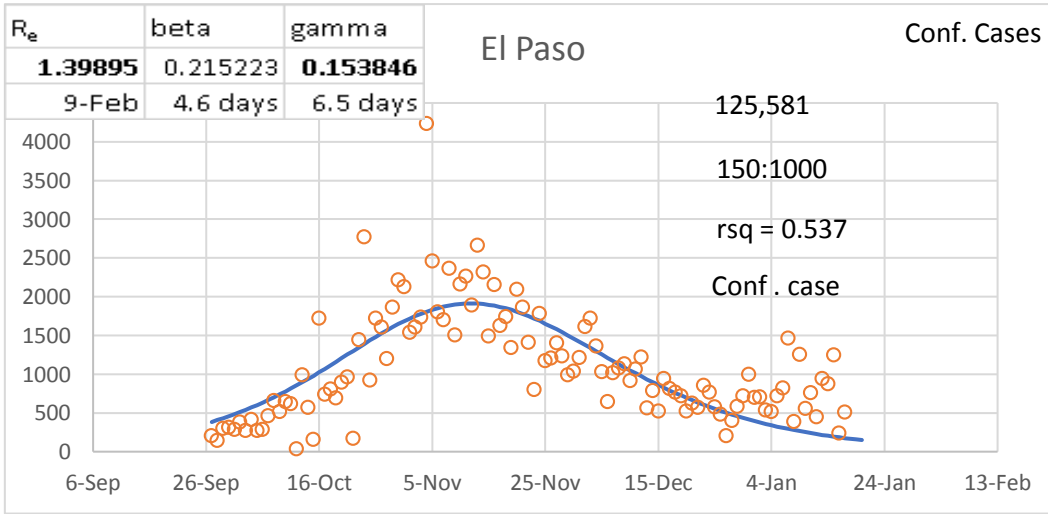
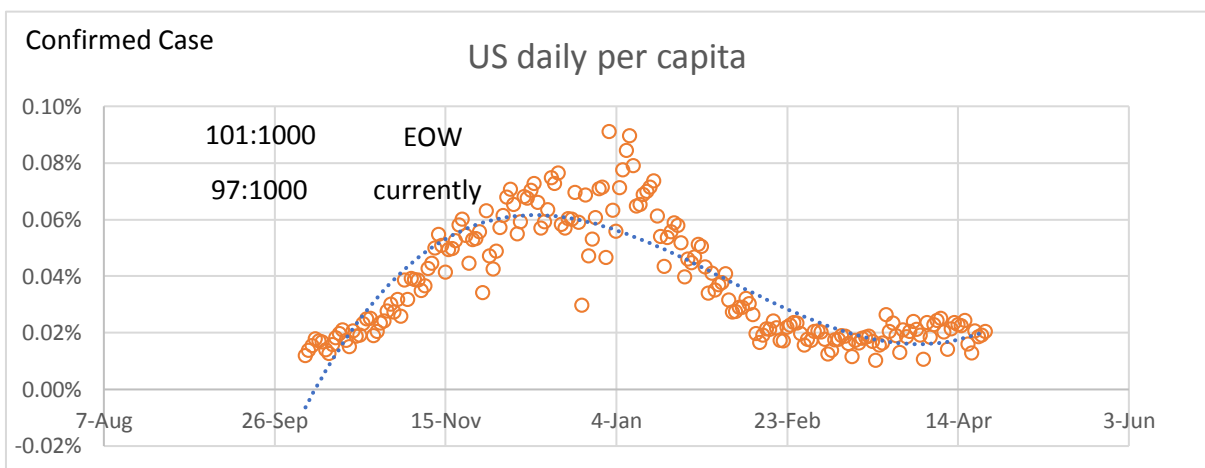
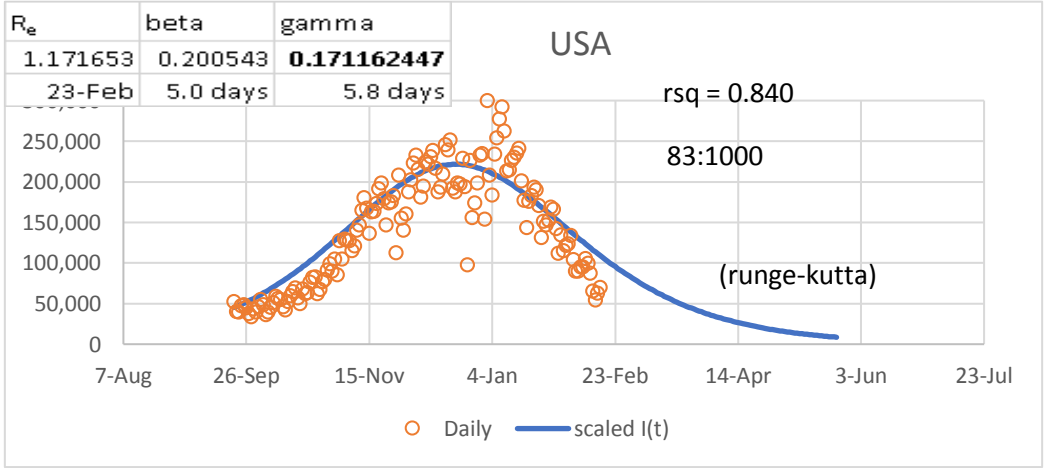
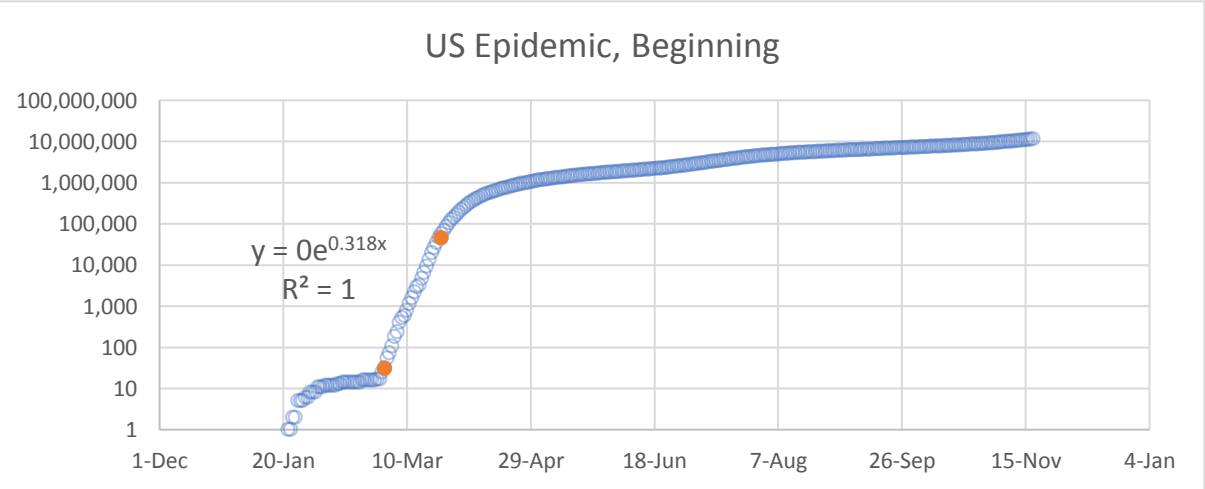
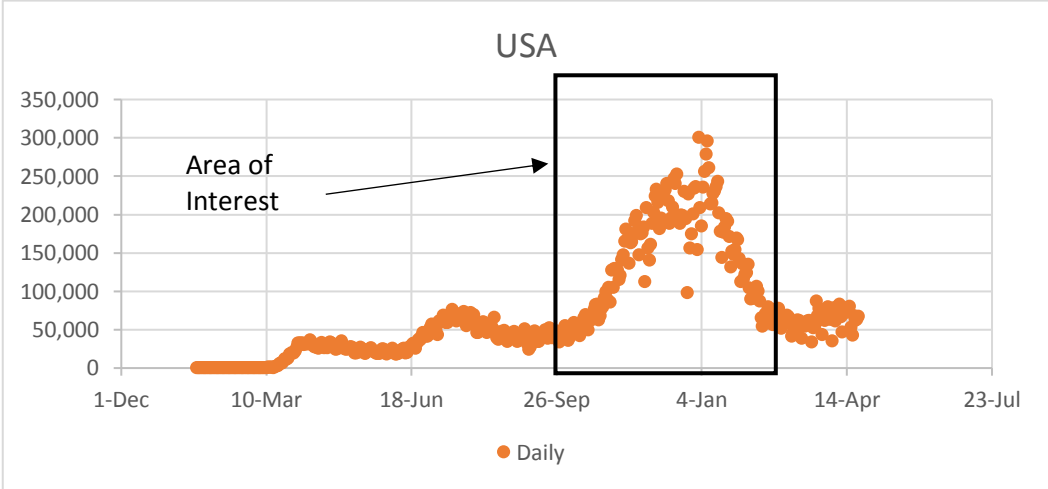
$\gamma = 0.171$ $R_o = \exp(K/\gamma) = 6.42$ 84%

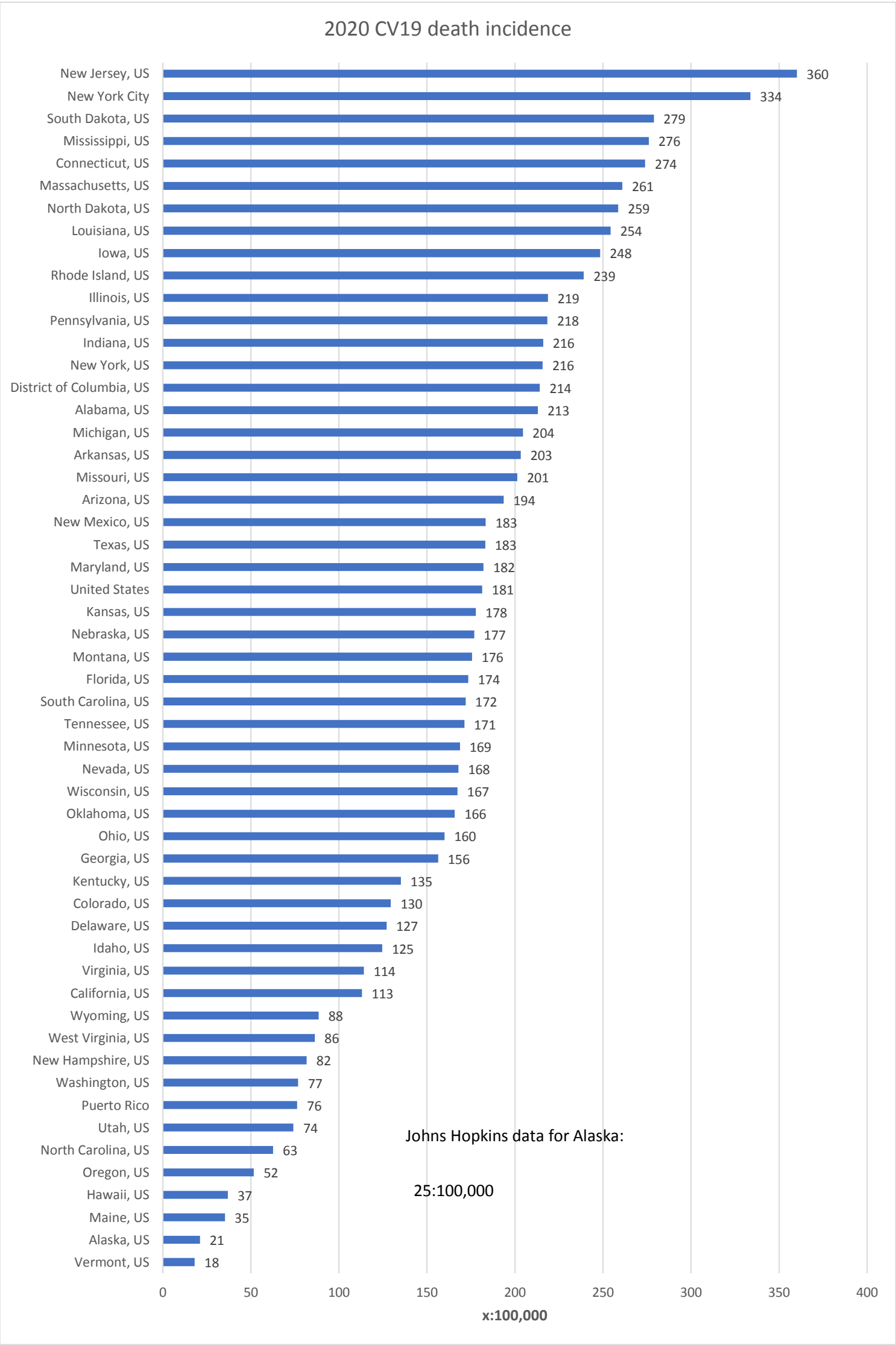
$\gamma = 0.286$ $R > 1 - 1/R_o = 3.04$ 67% \leq Herd immunity

R is recovered variable.



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





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