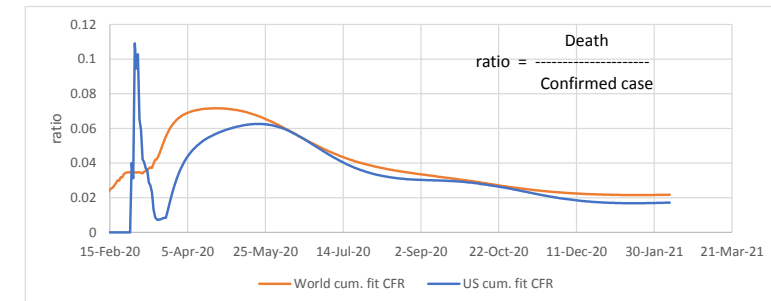
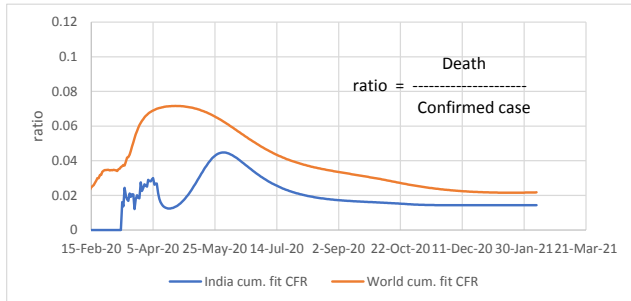
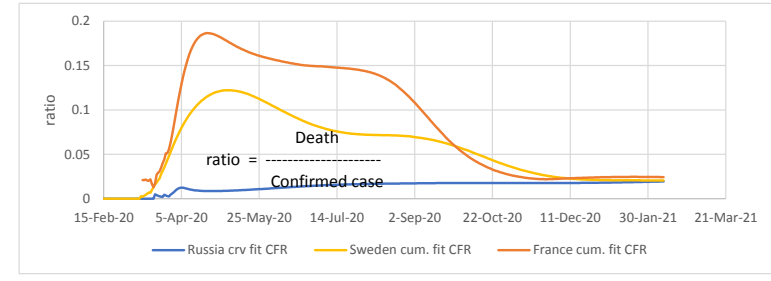
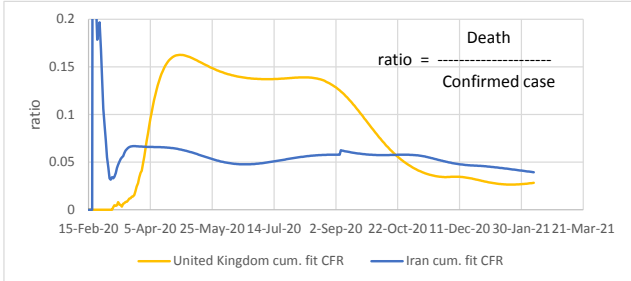
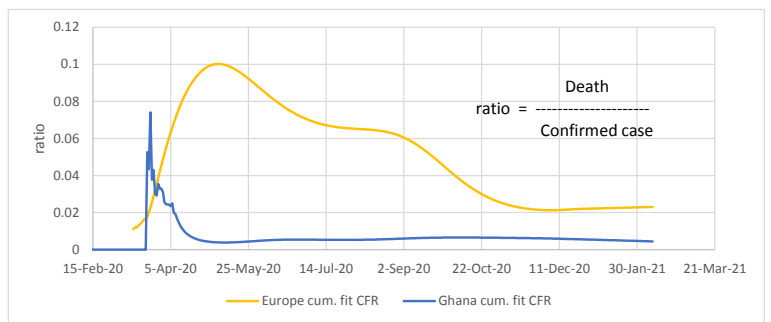
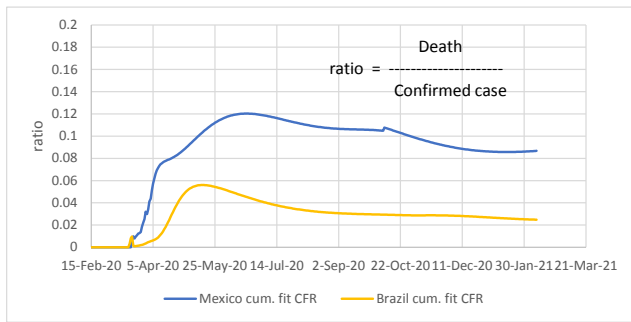
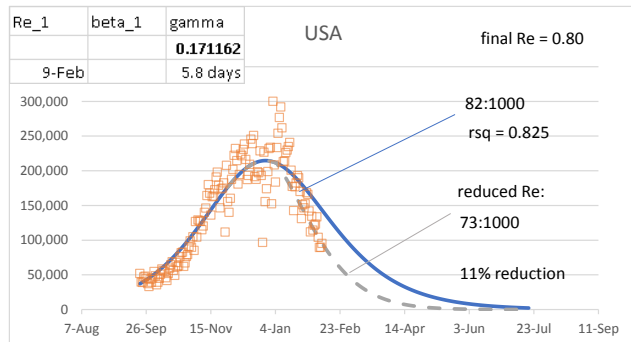


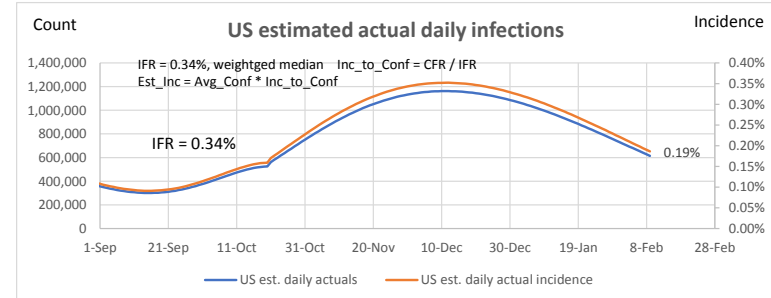
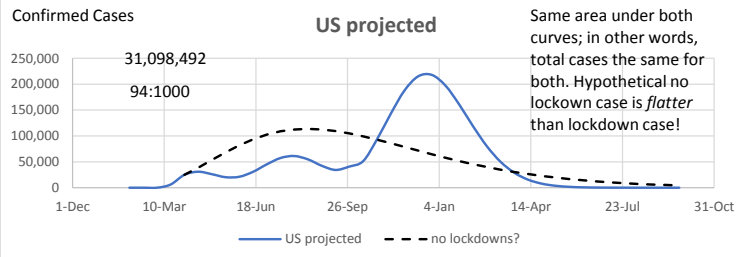
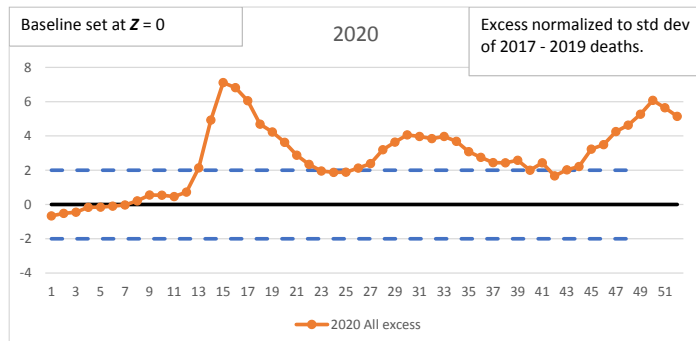
## Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)



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

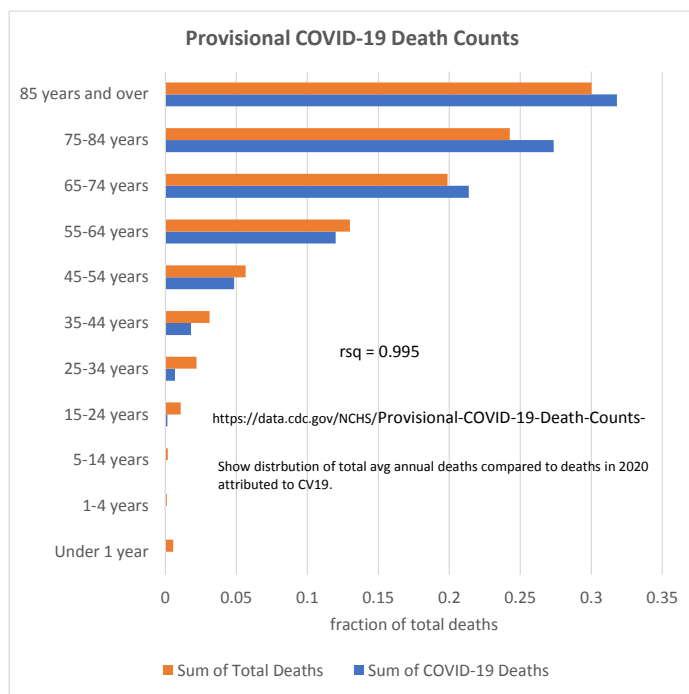
Use 0.19% from US est. incidence above as estimated daily incidence  
Prevalence estimated as avg. infected period of 2 weeks X incidence

99% accuracy of test		
Positive	Negative	
test pos	2.633%	0.973%
test neg	0.027%	96.367%
2.660%		97.340%
		100.00%

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

TRUE +	2.633%/3.61%	73.0%
FALSE +	0.973%/3.61%	27.0%
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	1004:100,000	898:100,000	-
Diff.	148:100,000	39:100,000	109:100,000

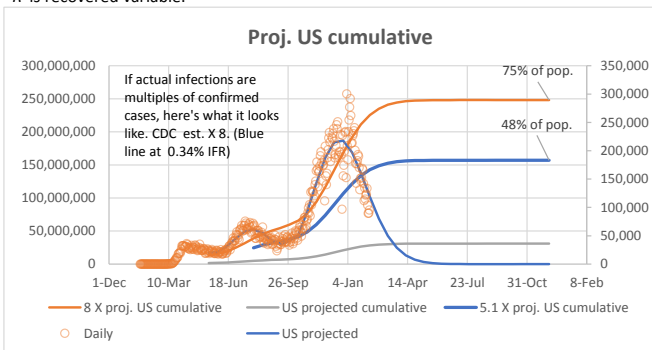
3 yr average
859:100,000

26% of All-Cause excess deaths are non-CV19

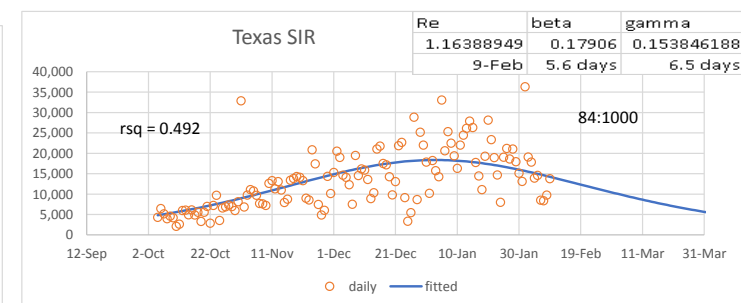
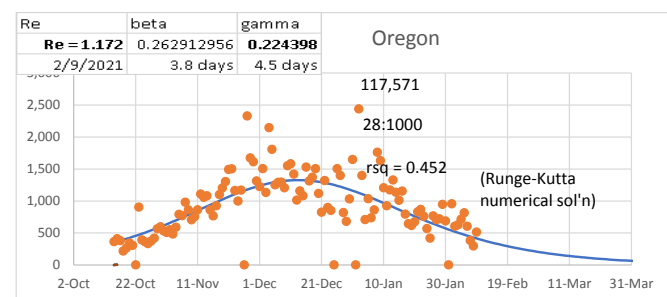
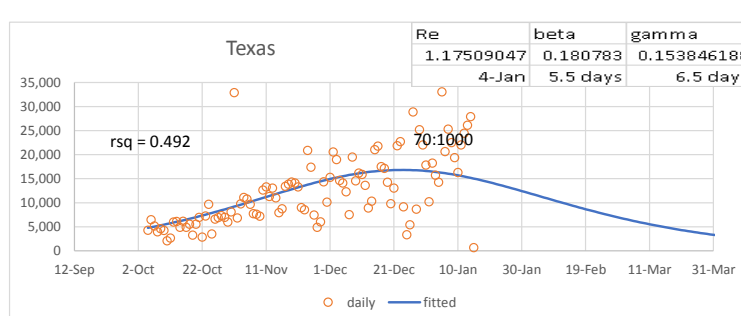
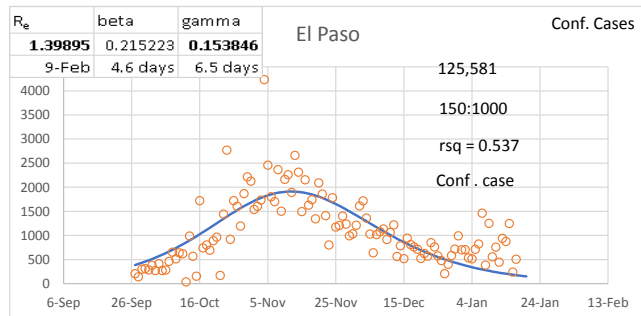
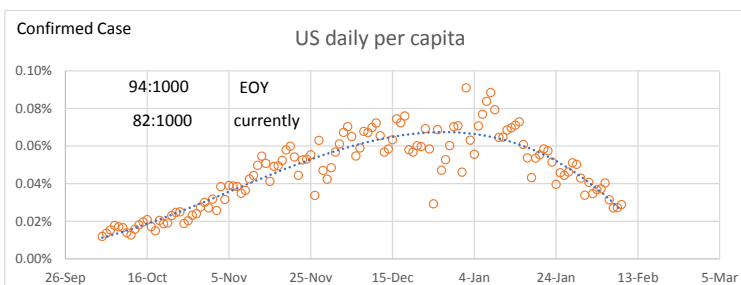
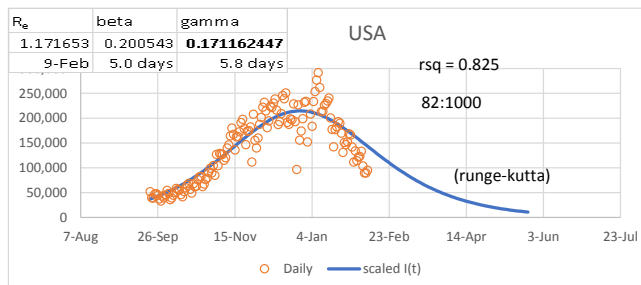
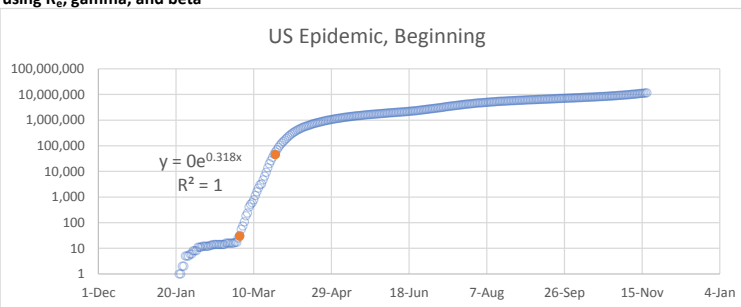
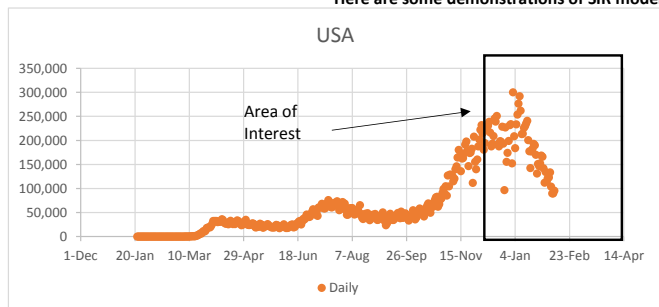
<https://data.cdc.gov/NCHS/Excess-Deaths-Associated-with-COVID-19/xkxf-xrst/data>

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

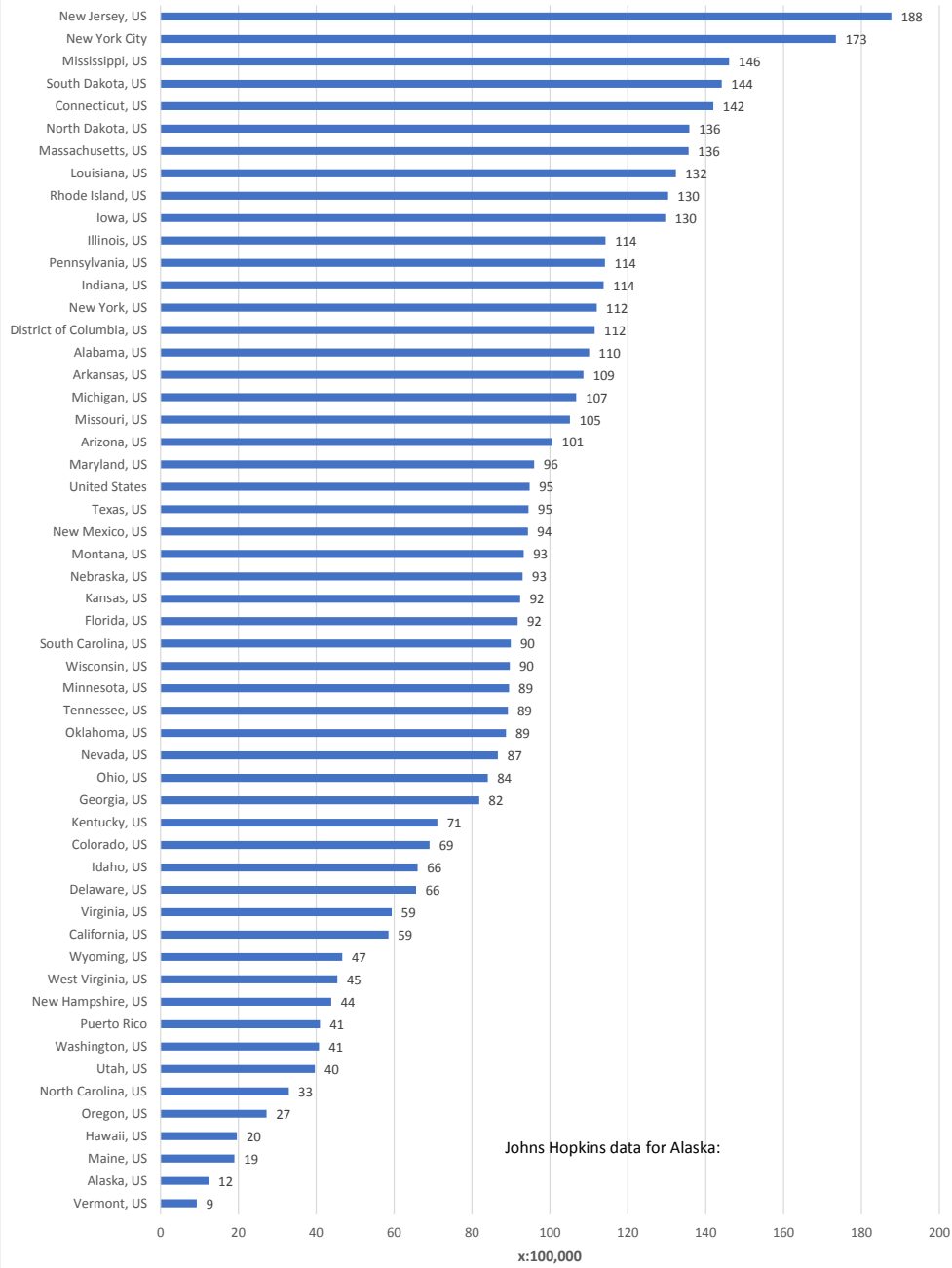
R is recovered variable.



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



2020 CV19 death incidence



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