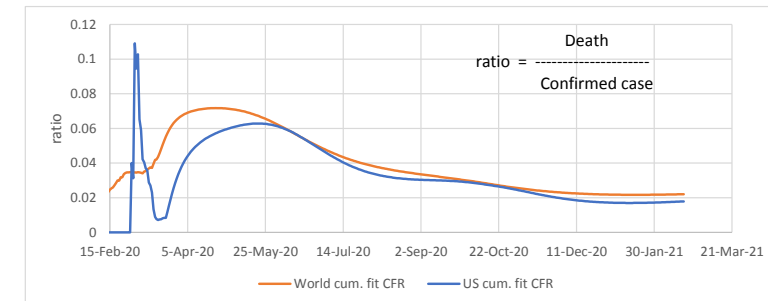
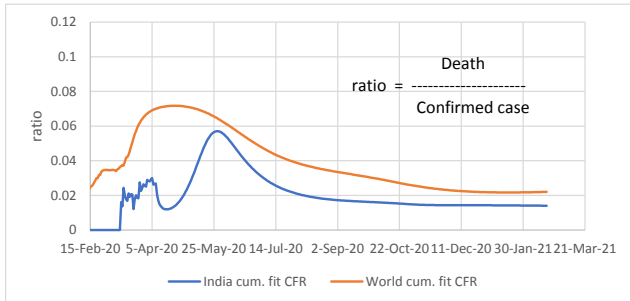
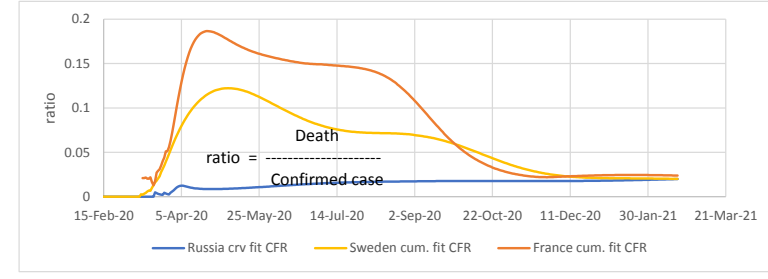
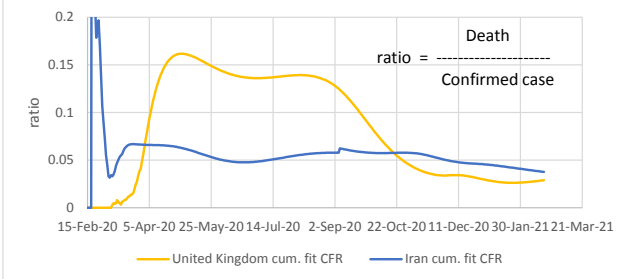
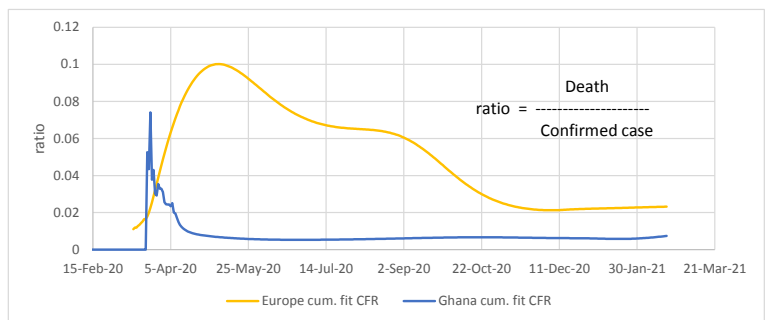
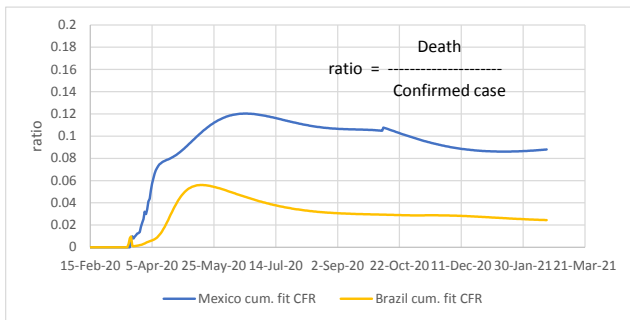
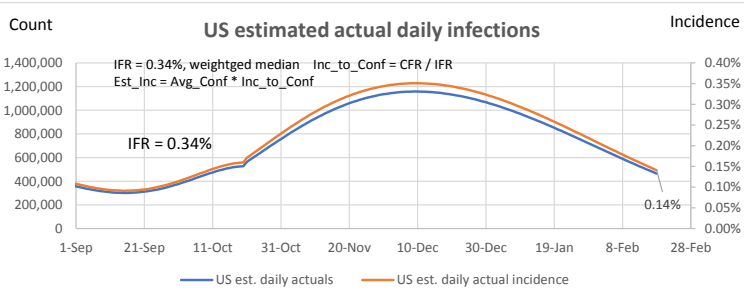
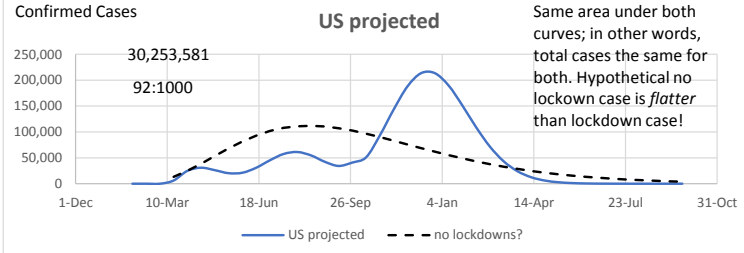
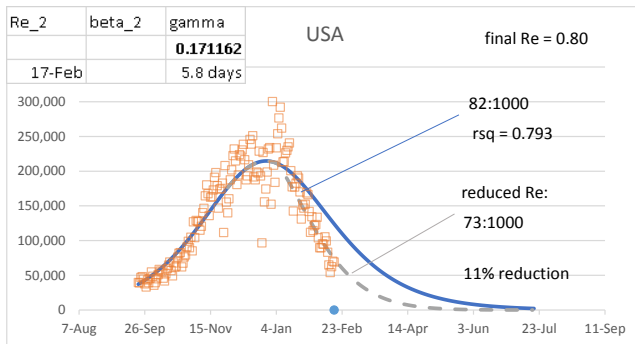


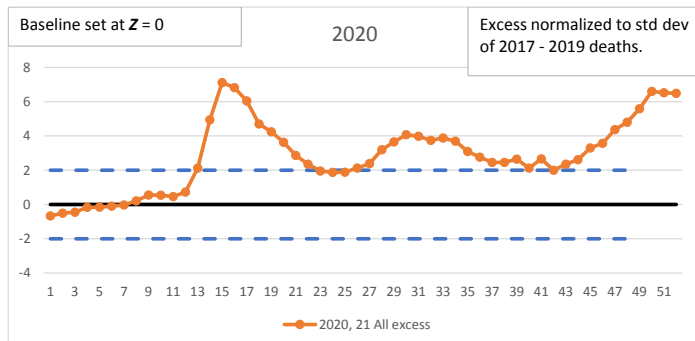
## Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)



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

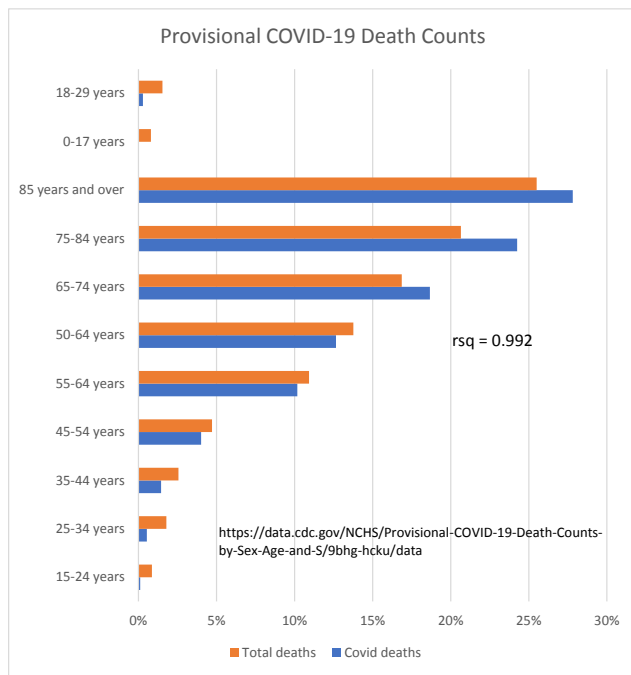
Use 0.14% from US est. incidence above as estimated daily incidence  
Prevalence estimated as avg. infected period of 2 weeks X incidence

99% accuracy of test		0.14% X 14 = 1.960%	
	Positive	Negative	
test pos	1.940%	0.980%	2.92%
test neg	0.020%	97.060%	97.08%
	1.960%	98.040%	100.00%

False pos. is 1/3 of total positives.

TRUE +	1.94%/2.92%	66.4%
FALSE +	0.98%/2.92%	33.6%
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

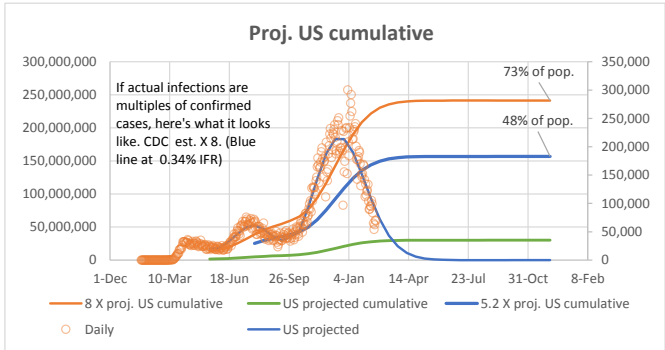
3 yr average
859:100,000

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

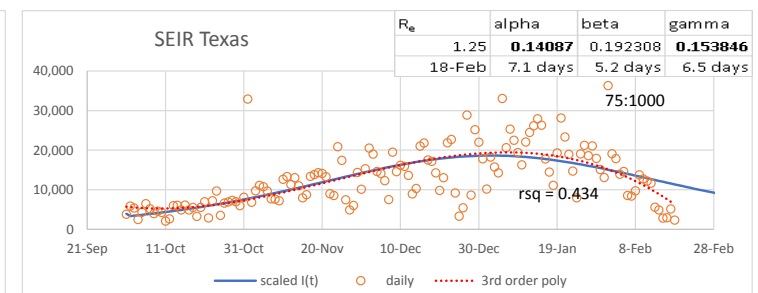
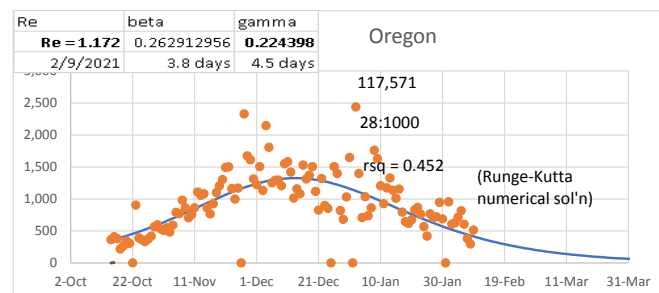
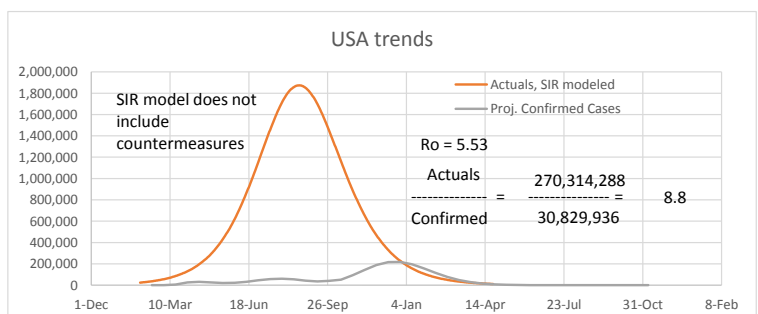
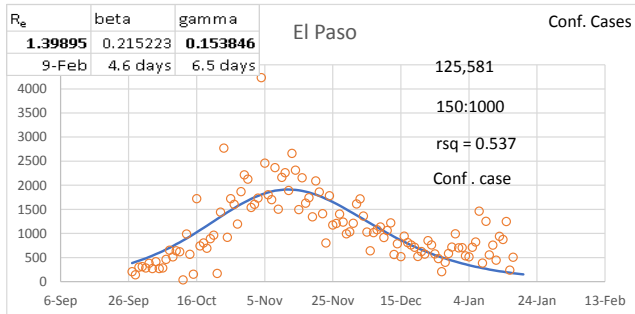
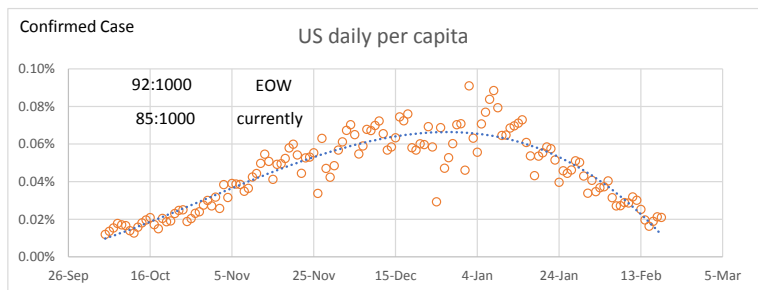
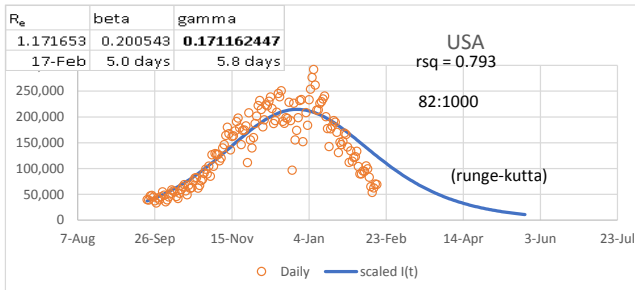
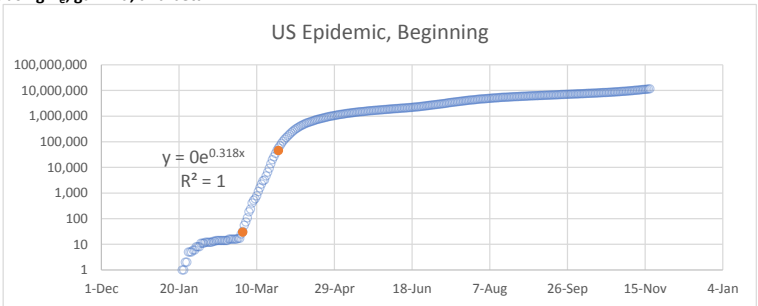
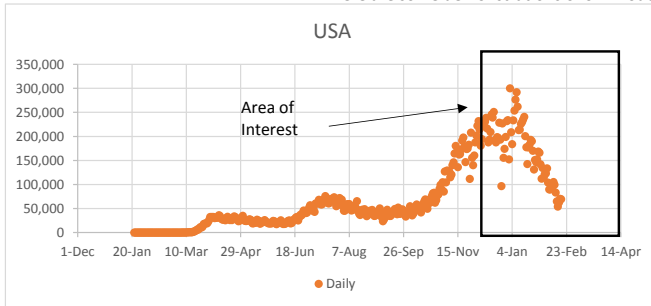
<https://data.cdc.gov/NCHS/Excess-Deaths-Associated-with-COVID-19/xkxf-xrst/data>

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

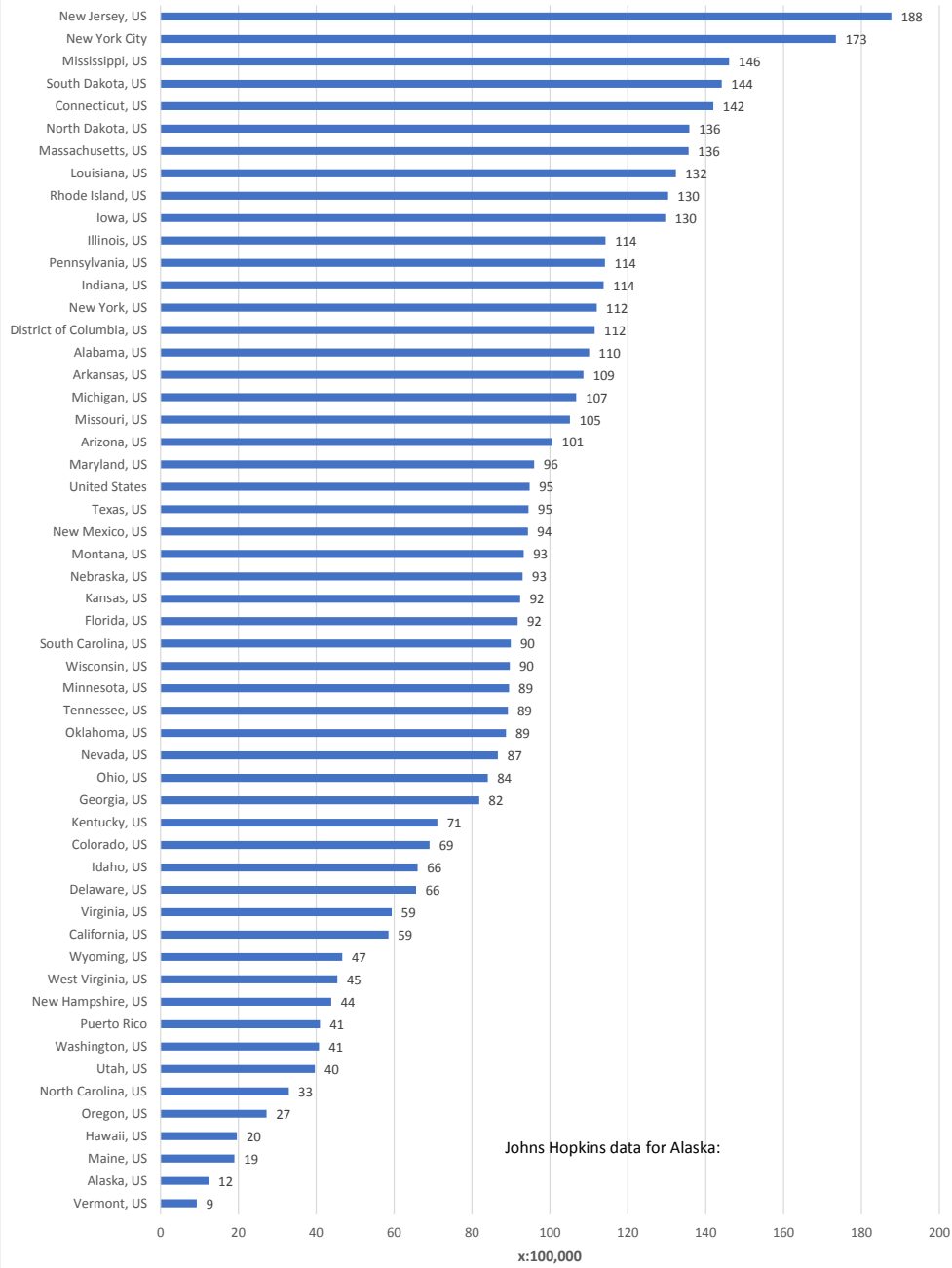
$R$  is recovered variable.



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



2020 CV19 death incidence



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