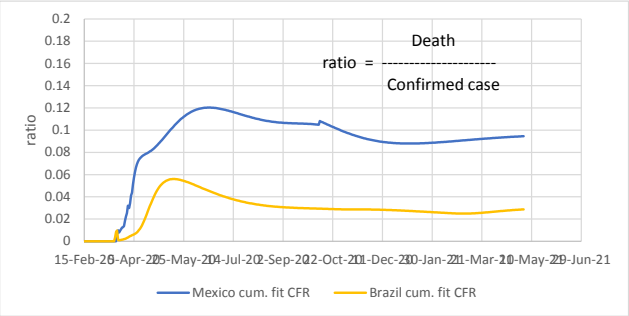
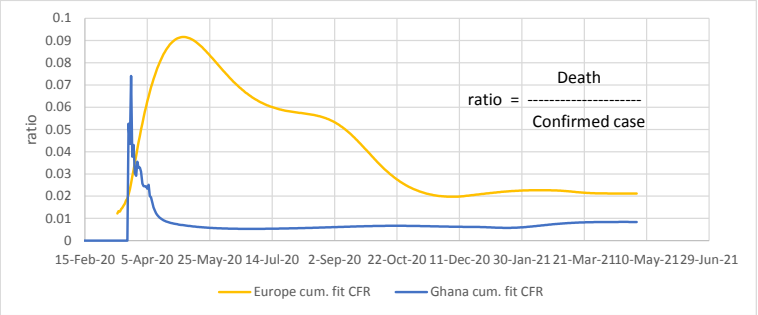
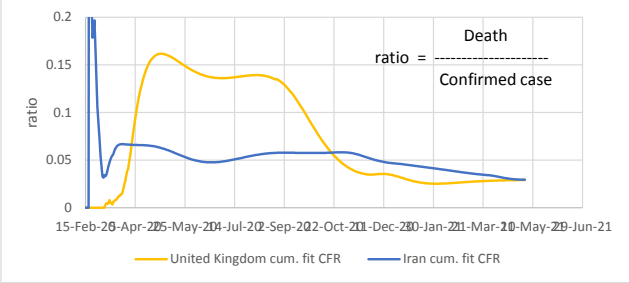
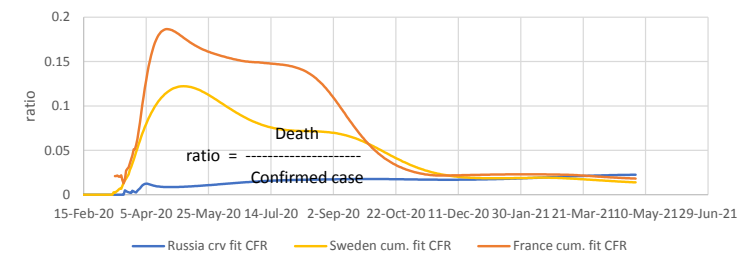
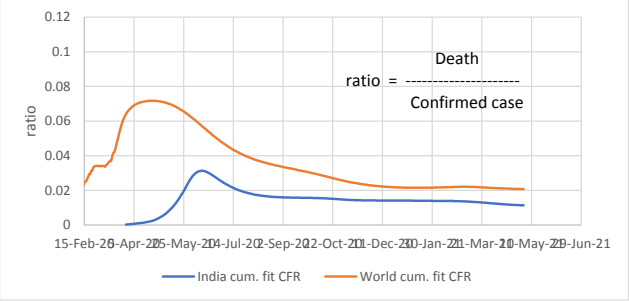
Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)

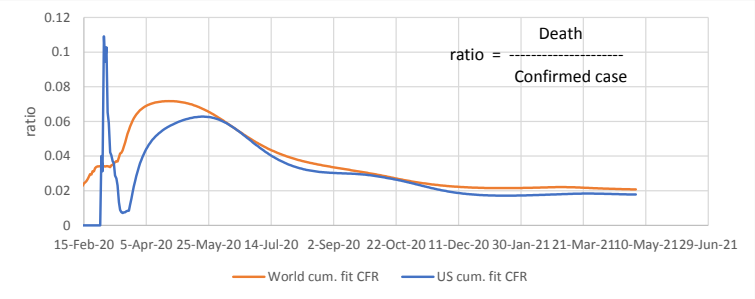




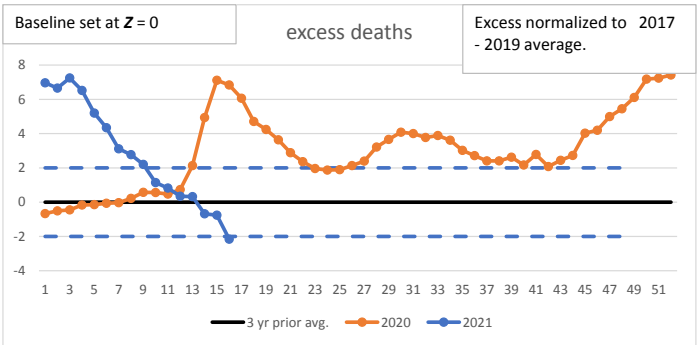


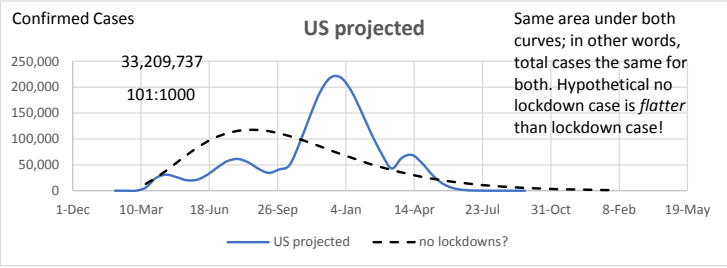




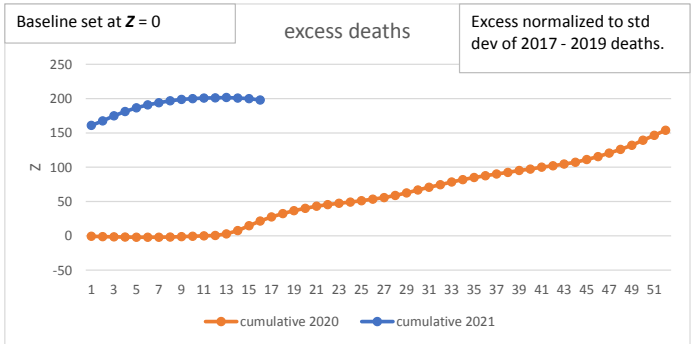


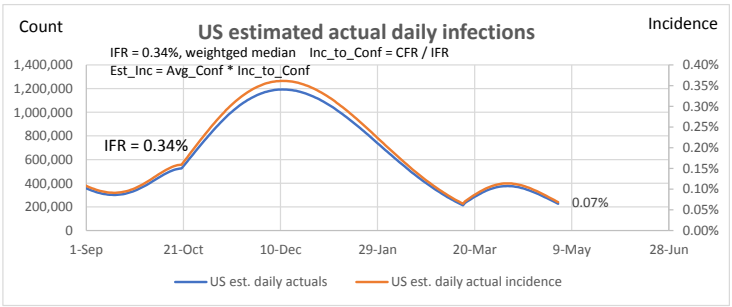
Excess deaths as a Z score:





Above based on Z score of three year standard deviation from 2017-2019. What follows is cumulative plot of same. Although it's not likely, if the blue line gets back to zero within 2021, it would mean the excess people who died in 2020, probably would have died in 2021 anyway. This is very unlikely.





<u>False Positives Demonstration</u>

Use 0.07% from US est. incidence above as estimated daily incidence

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

99% accuracy of test 0.07% X 14 = 0.980%

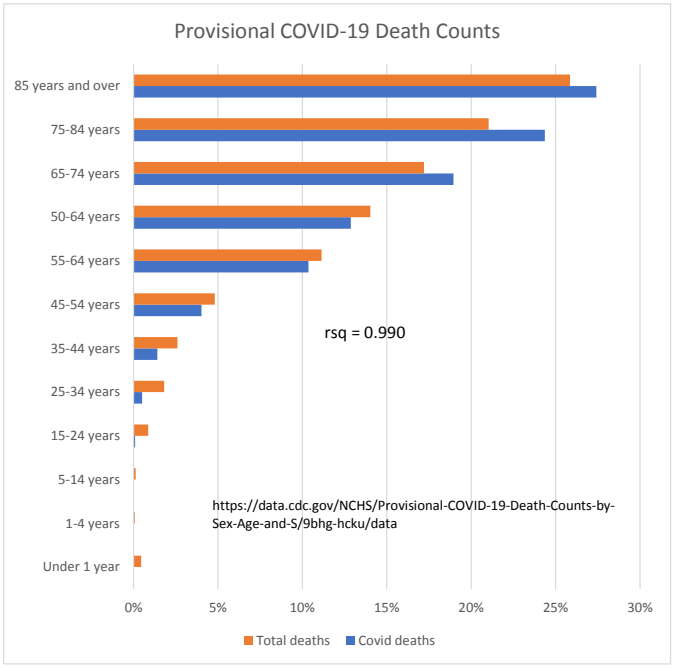
	Positive	Negative	
test pos	0.970%	0.990%	1.96%
test neg	0.010%	98.030%	98.04%
	0.980%	99.020%	100.00%

False pos. is more than half of total positives.

TRUE +	0.97%/1.96%	49.5%
FALSE +	0.99%/1.96%	50.5%
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/xkkf-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/xkkf-xrst/data

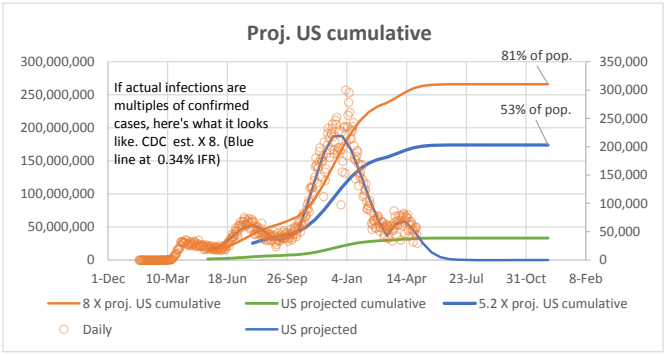
K = 0.318 R_o: R :

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

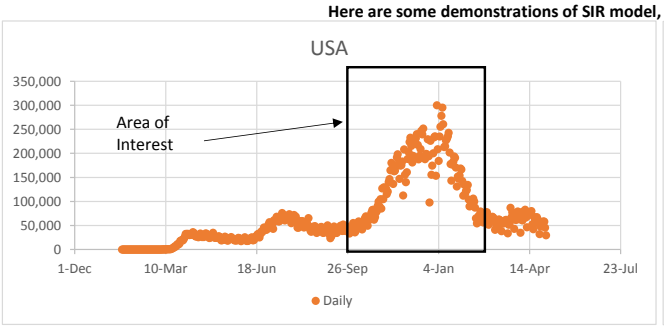
gamma = 0.286 $R > 1 - 1/R_o$ = 3.04 67%

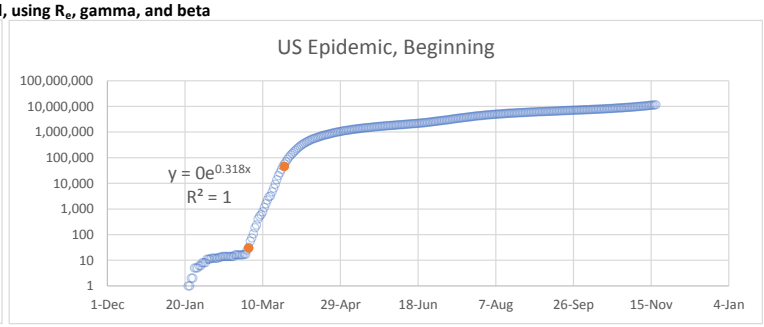
<=Herd immunity

R is *recovered* variable.

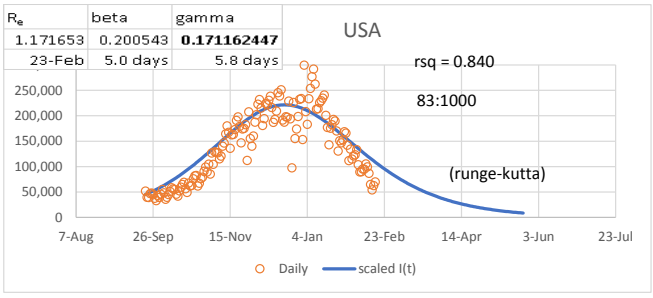


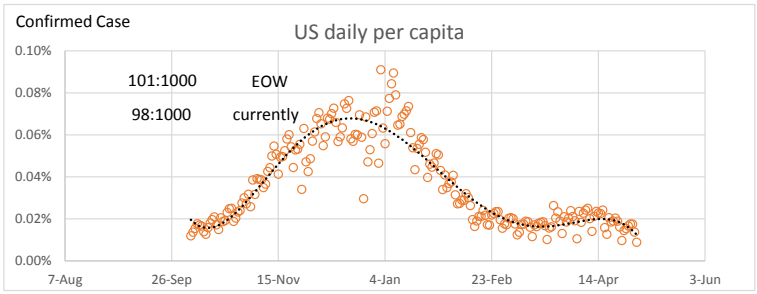
Here are some demonstrations of SIR model, using R_e, gamma, and beta



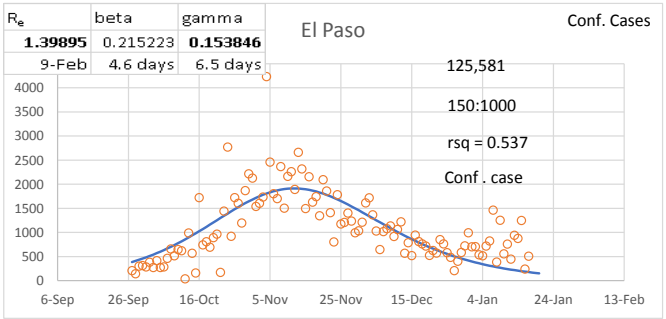


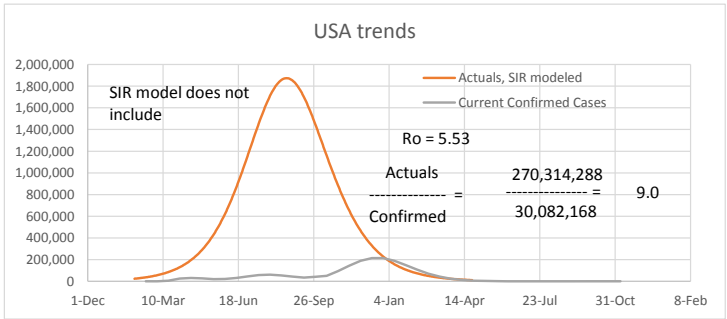
R_e	beta	gamma
1.171653	0.200543	**0.171162447**
23-Feb	5.0 days	5.8 days



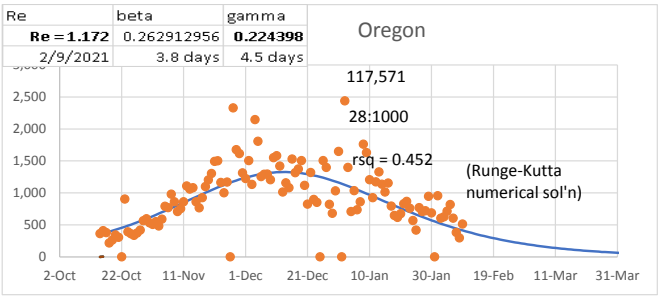


R_e	beta	gamma
1.39895	0.215223	**0.153846**
9-Feb	4.6 days	6.5 days

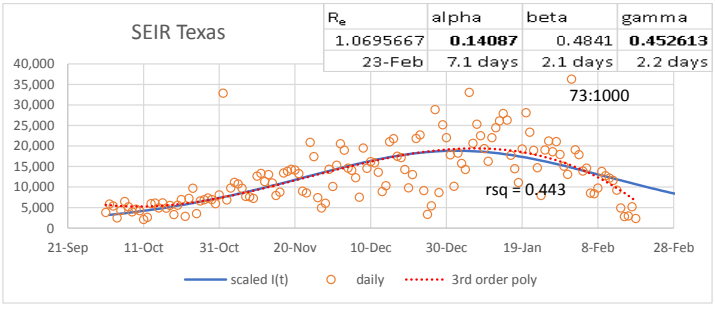


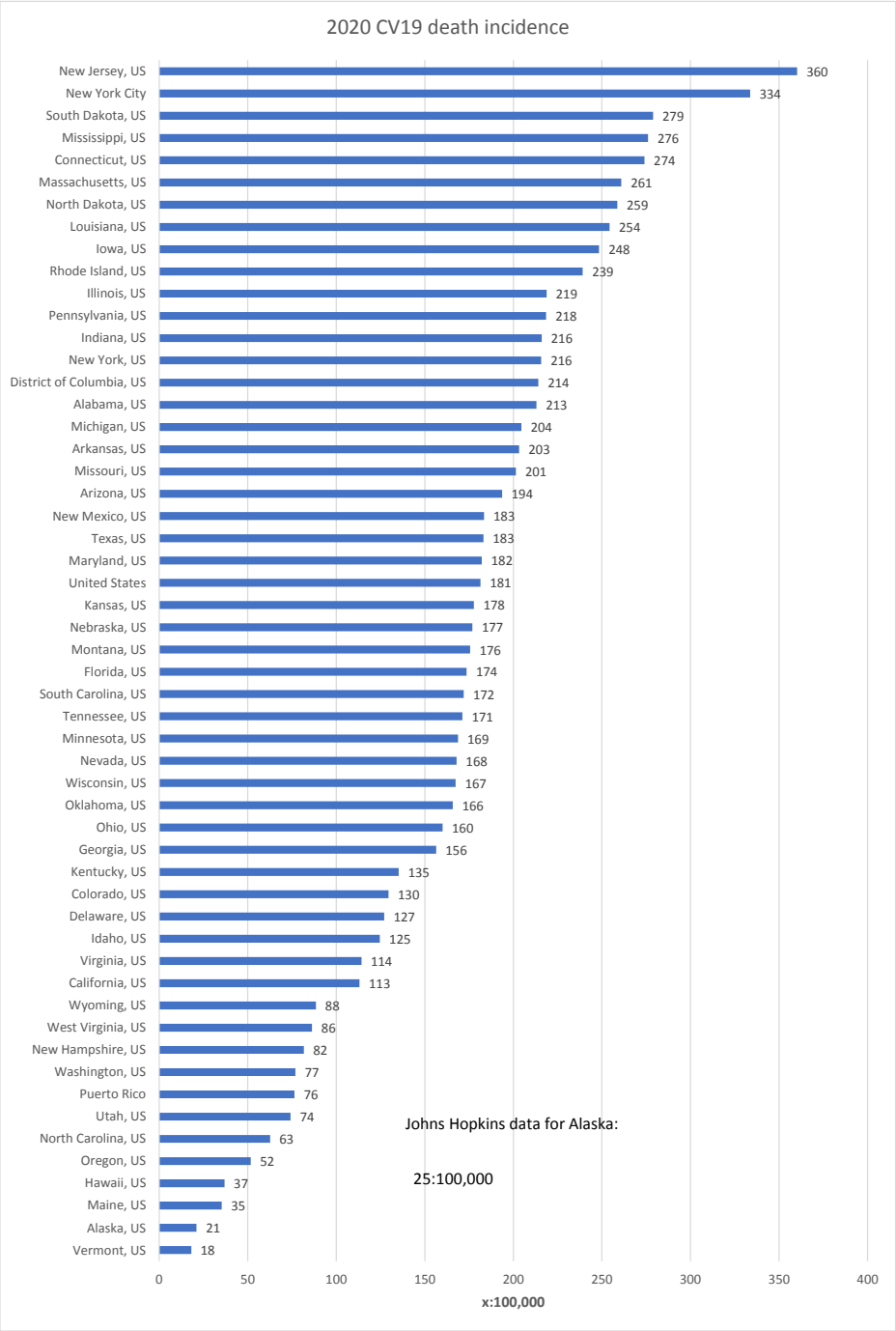


Re	beta	gamma
Re = 1.172	0.262912956	**0.224398**
2/9/2021	3.8 days	4.5 days



R_e	alpha	beta	gamma
1.0695667	**0.14087**	0.4841	**0.452613**
23-Feb	7.1 days	2.1 days	2.2 days





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