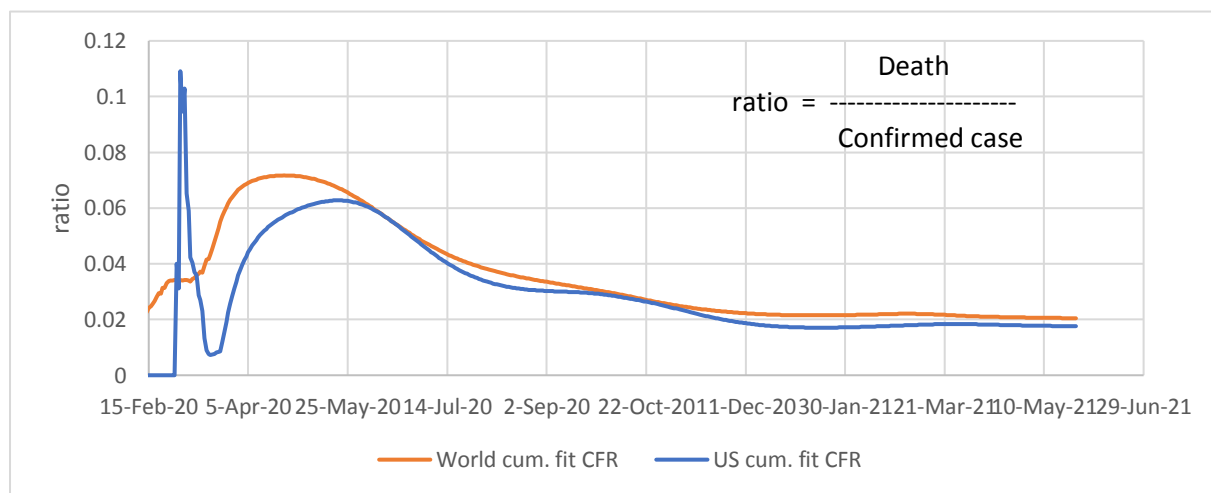
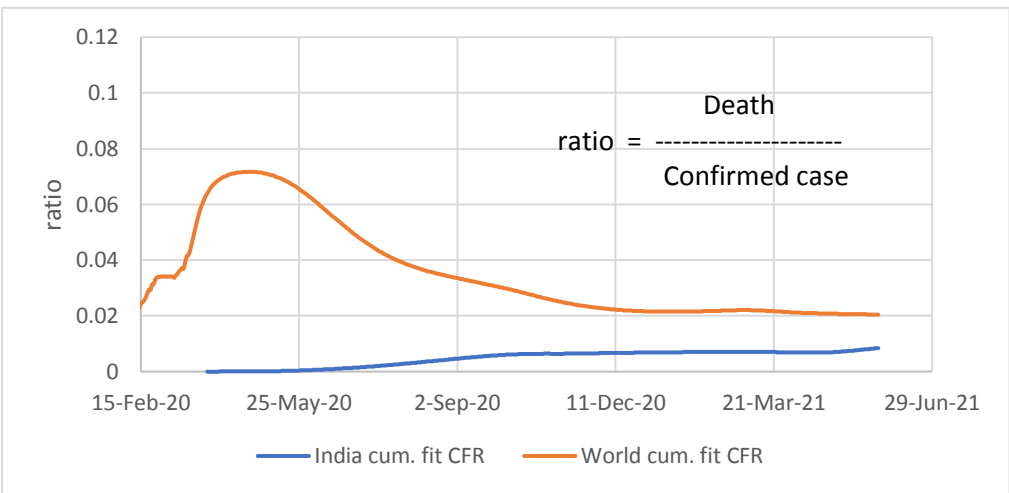
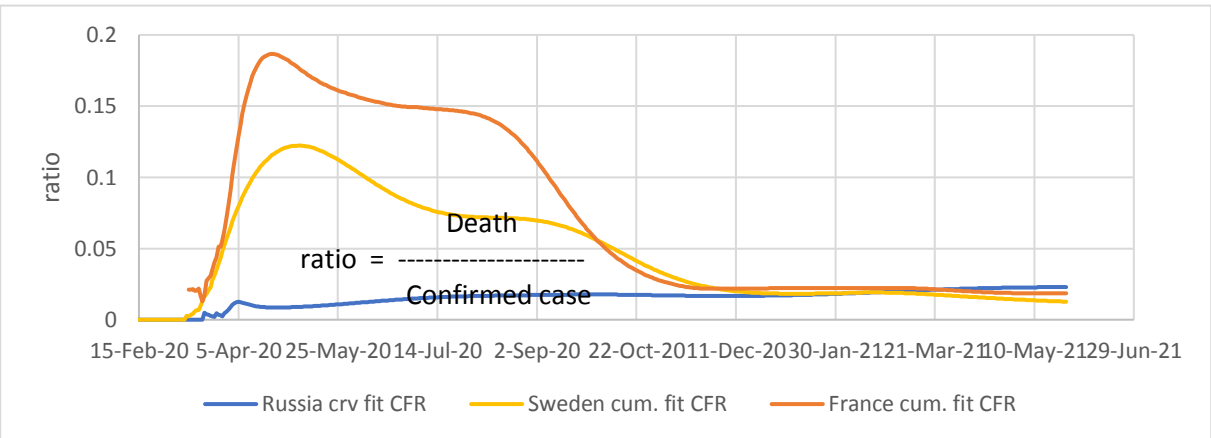
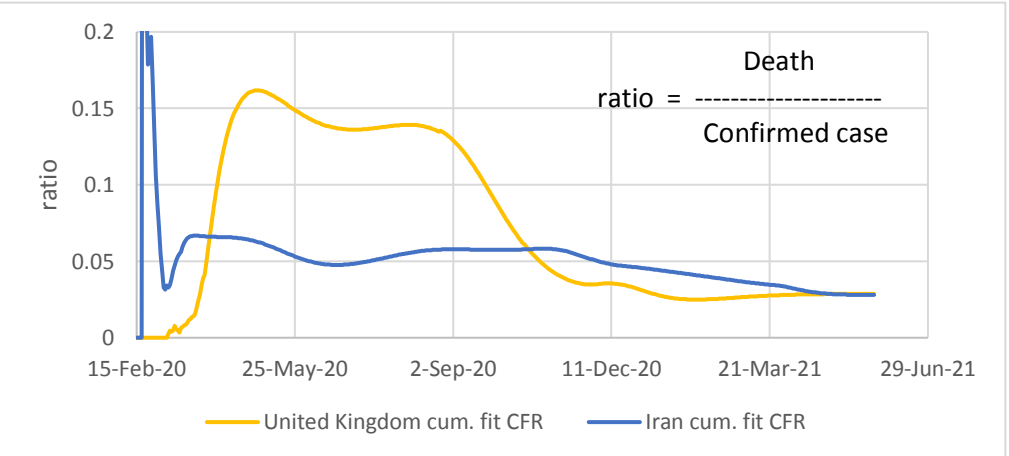
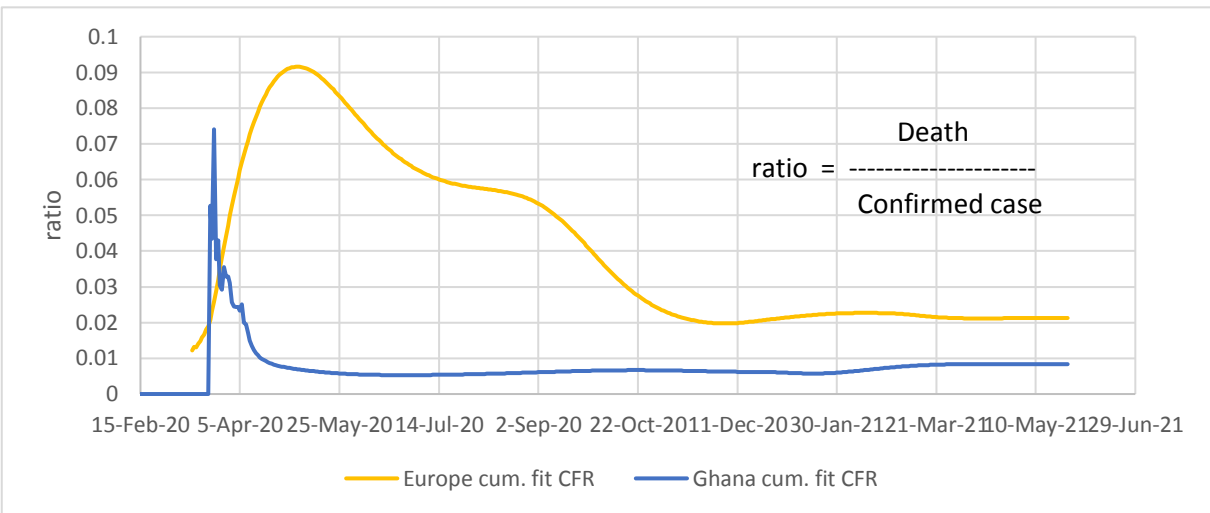
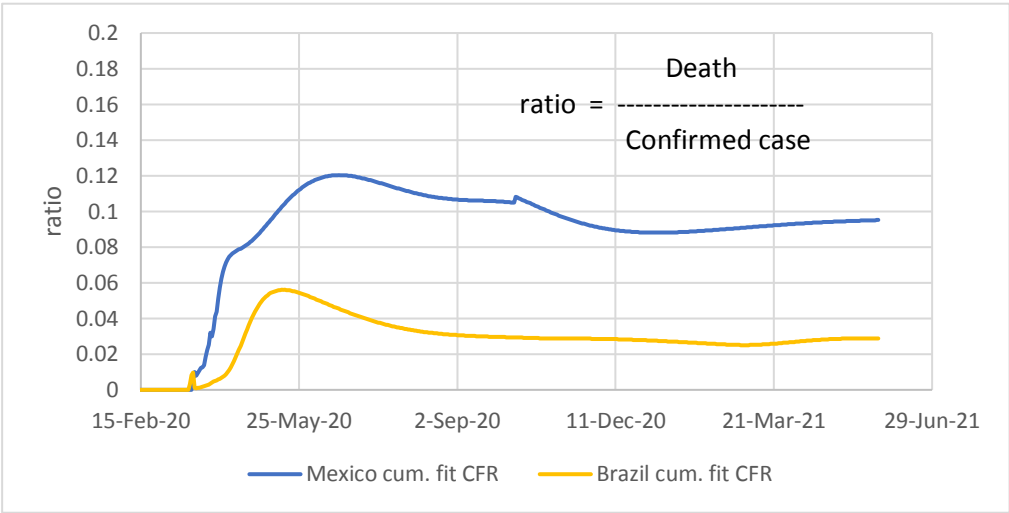
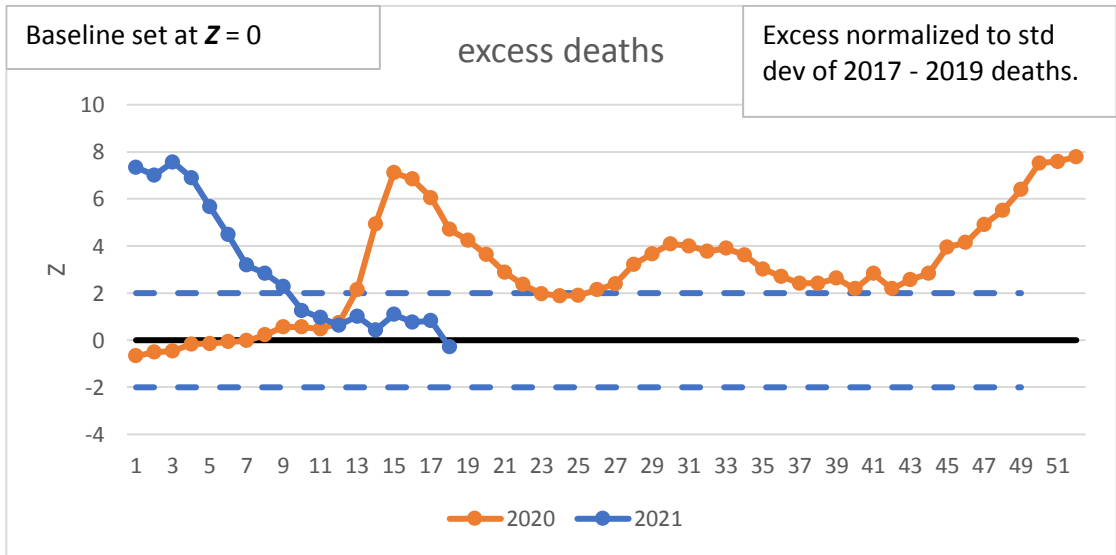


Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)

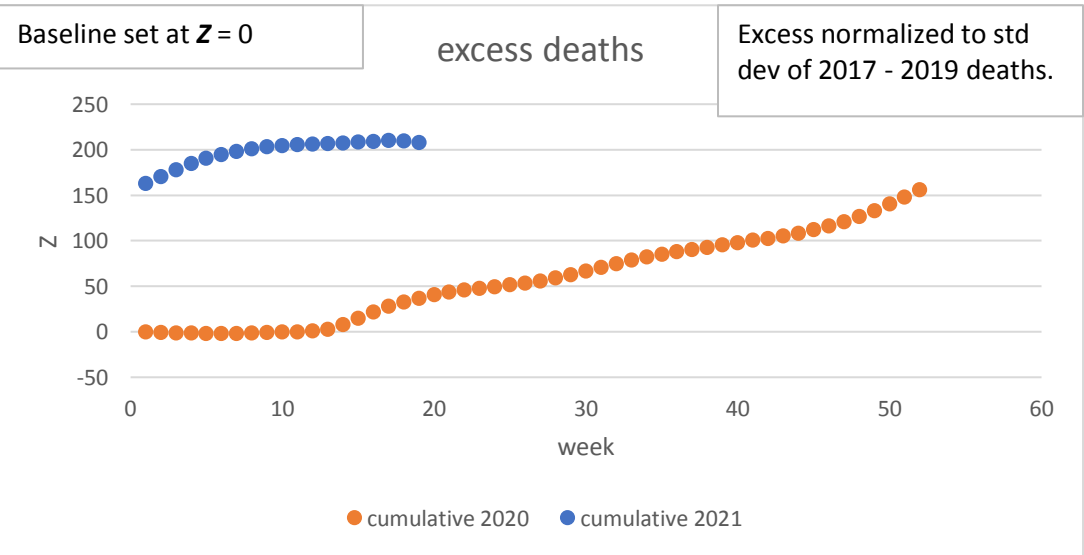


Excess deaths as a Z score:



Above based on Z score of three year standard deviation from 2017-2019. What follows is cumulative plot of same.

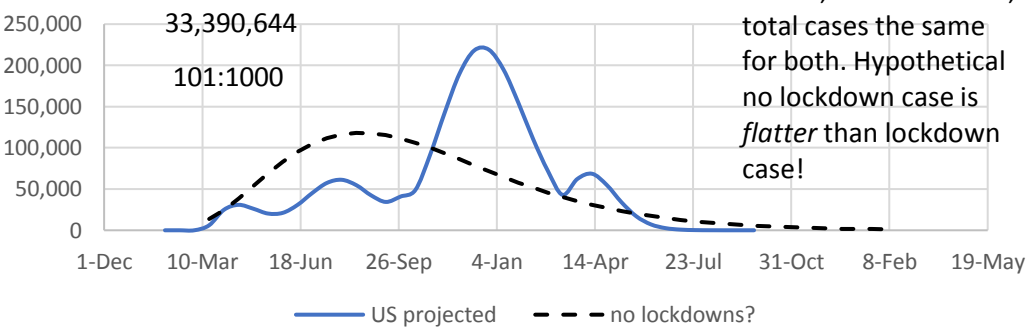
Data in recent weeks are incomplete. Only 60% of death records are submitted to NCHS within 10 days of the date of death, and completeness varies by jurisdiction. Data are not weighted and counts are likely



Confirmed Cases

US projected

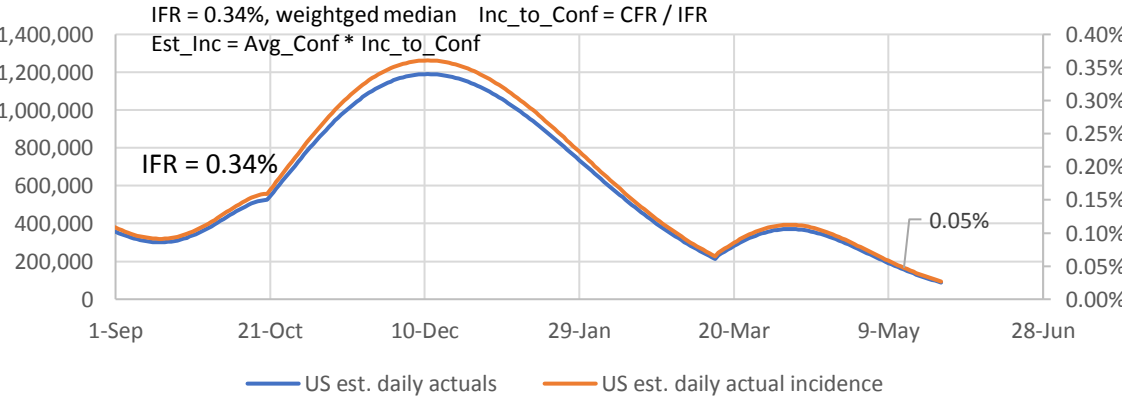
Same area under both curves; in other words, total cases the same for both. Hypothetical no lockdown case is flatter than lockdown case!



Count

US estimated actual daily infections

Incidence



False Positives Demonstration

Use 0.04% from US est. incidence above as estimated daily incidence

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

99% accuracy of test

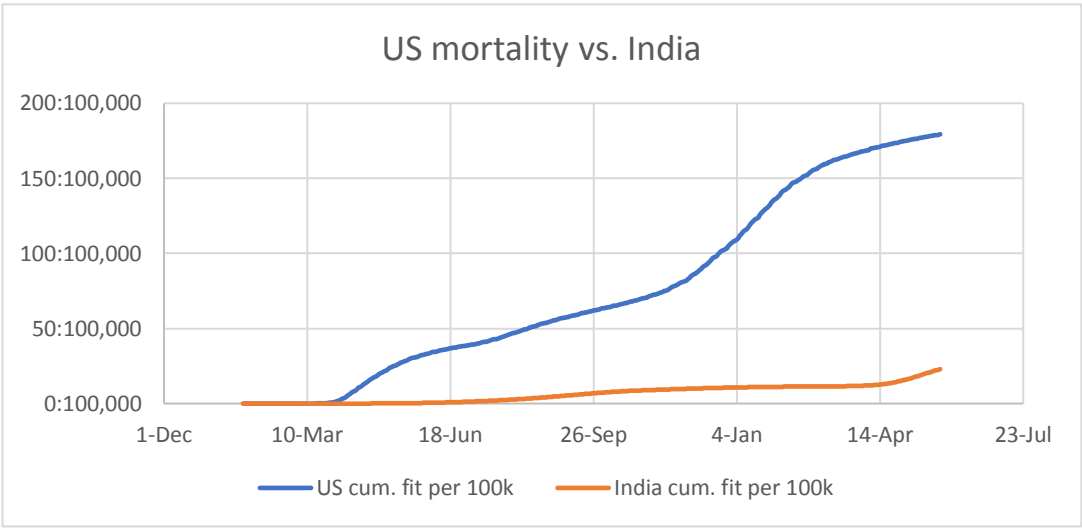
0.04% X 14 = 0.560%

	Positive	Negative	
test pos	0.554%	0.994%	1.55%
test neg	0.006%	98.446%	98.45%
	0.560%	99.440%	100.00%

False pos. is more than half of total positives.

TRUE +	0.554%/1.55%	35.8%
FALSE +	0.994%/1.55%	64.2%
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.



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	1017:100,000	905:100,000	-
Diff.	157:100,000	46:100,000	111:100,000

3 yr average	29% of All-Cause excess deaths are non-CV19
859:100,000	

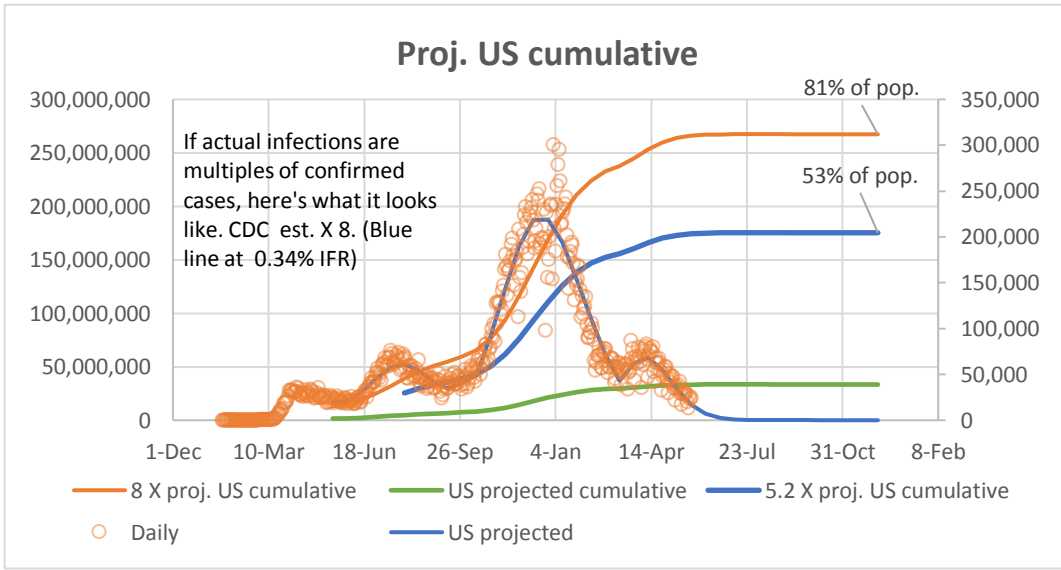
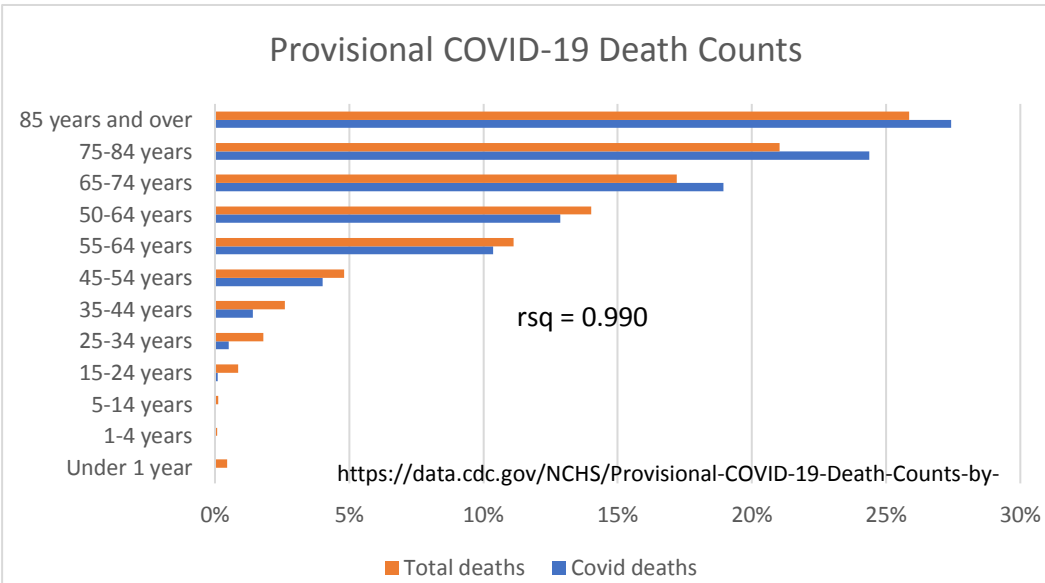
<https://data.cdc.gov/NCHS/Excess-Deaths-Associated-with-COVID-19/xkxf-xrst/data>

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

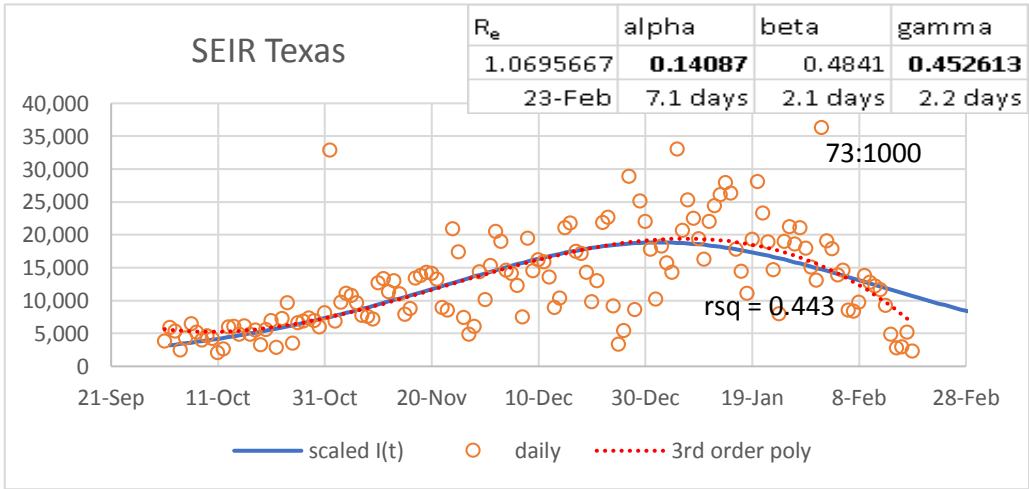
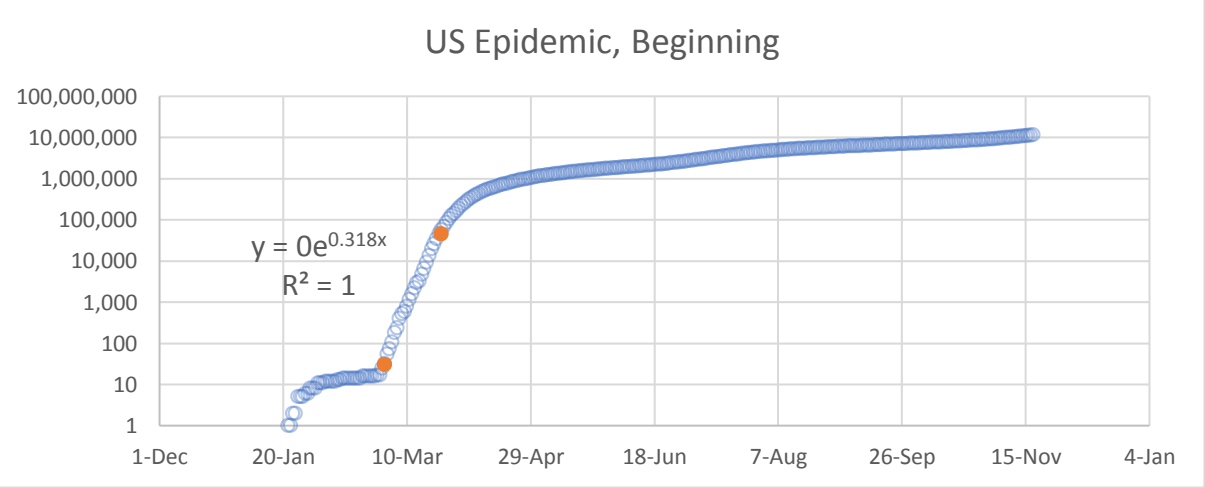
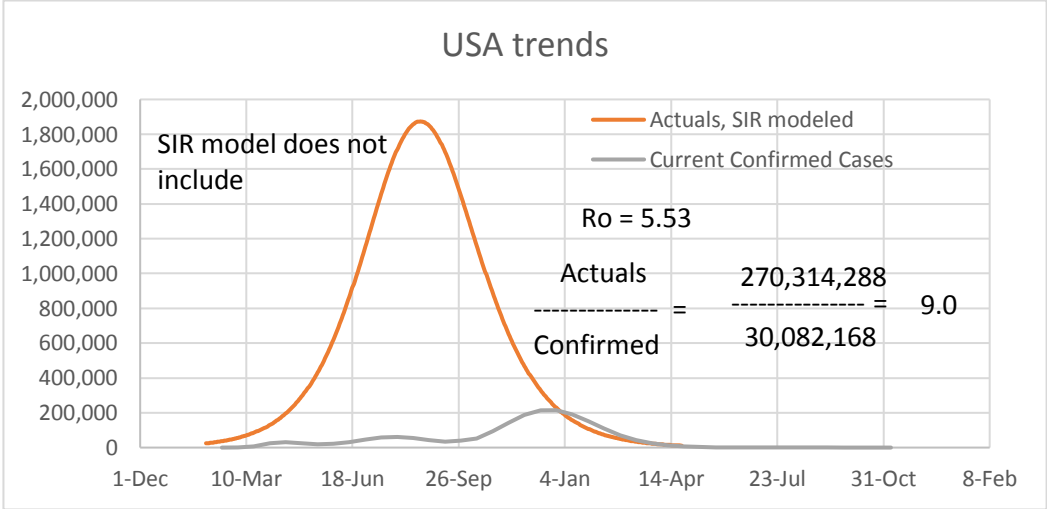
$\gamma = 0.171$ $R_o = \exp(K/\gamma) = 6.42$ 84%

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

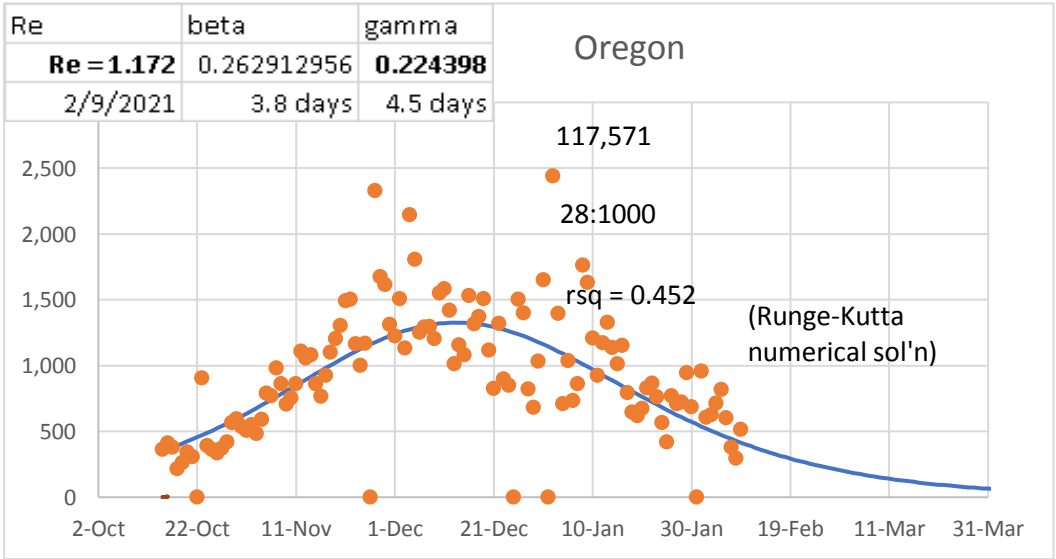
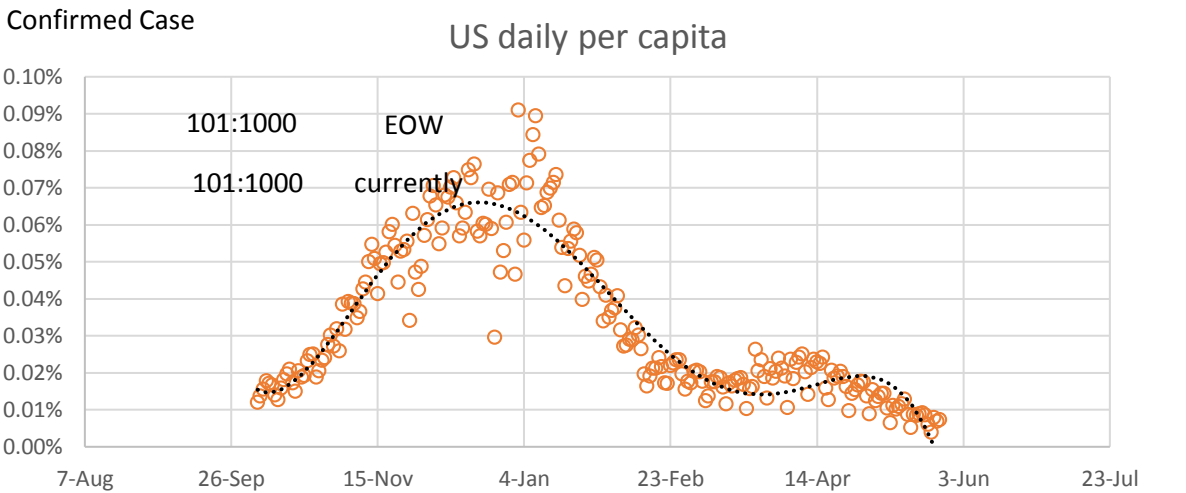
R is recovered variable.



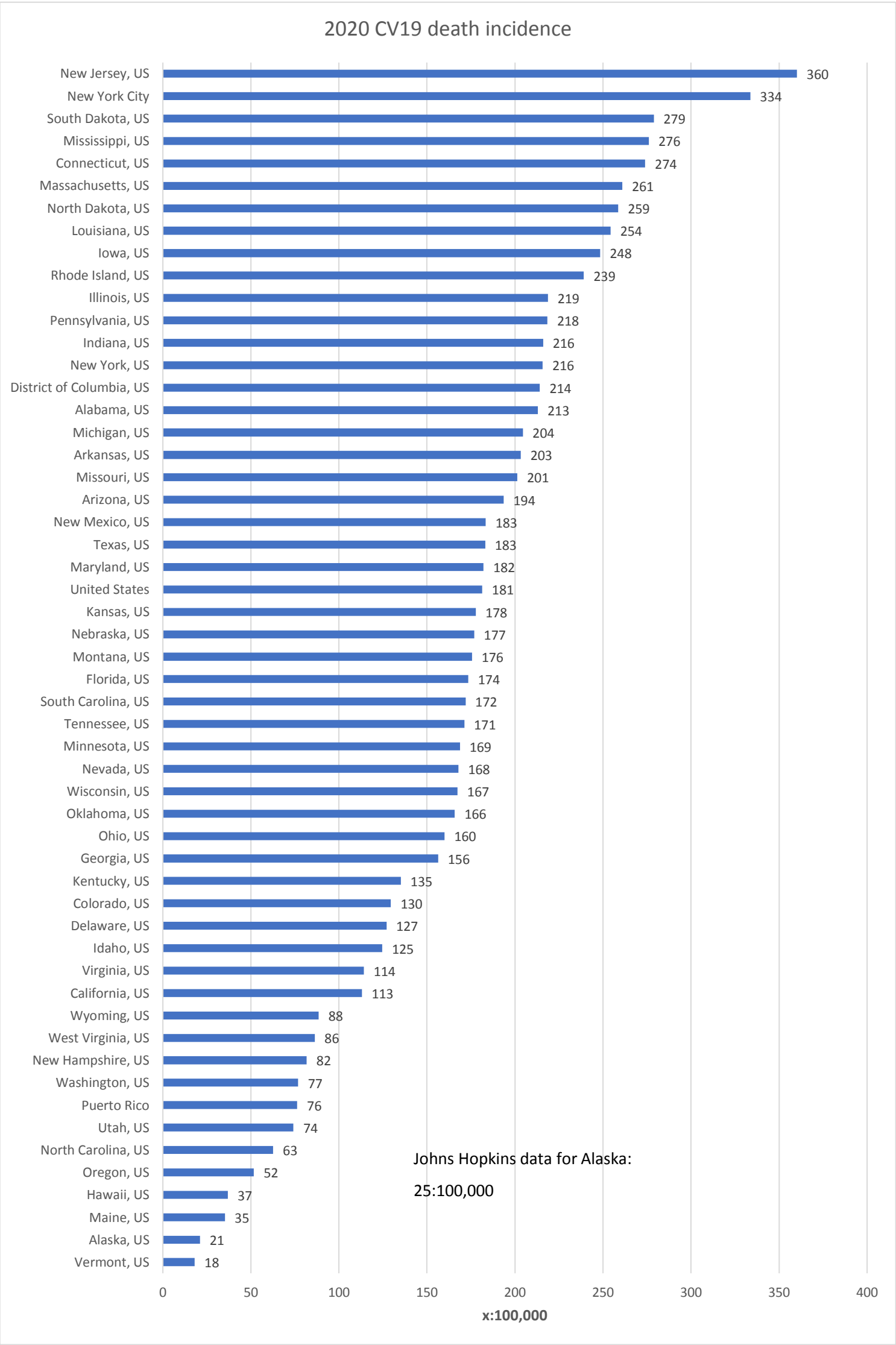
Here are some demonstrations of SIR model, using R_e , gamma, and beta



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



R_e	beta	gamma
$R_e = 1.172$	0.262912956	0.224398
2/9/2021	3.8 days	4.5 days



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