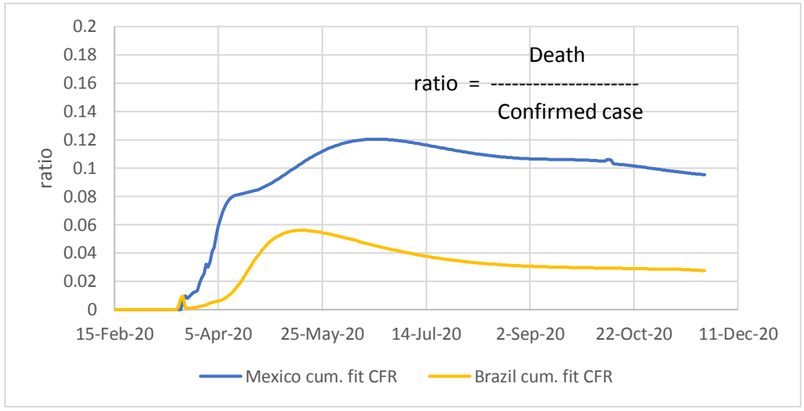
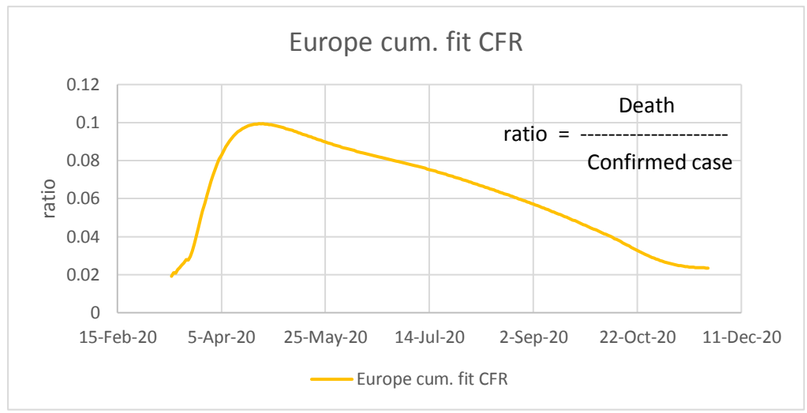
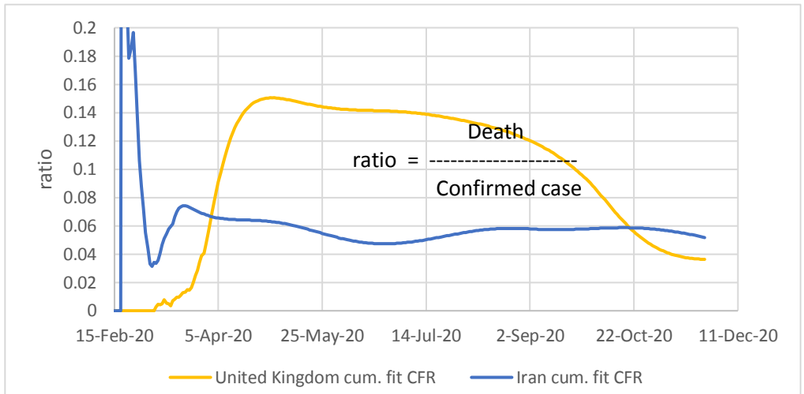
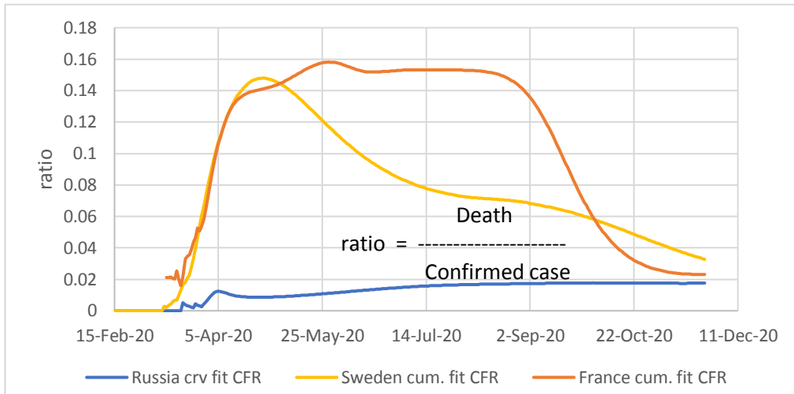
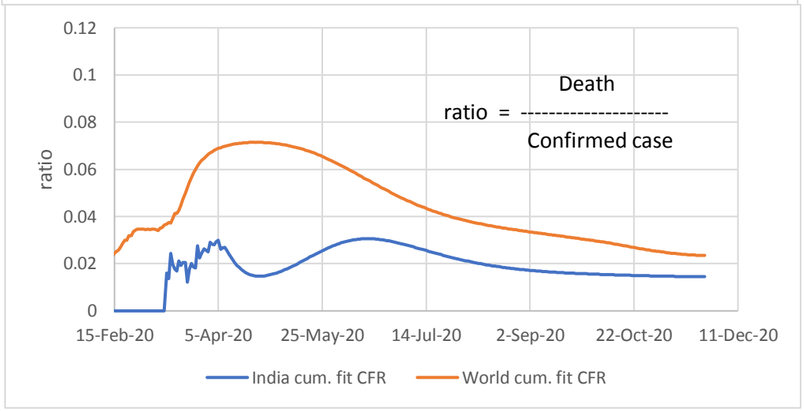
Experimental page : ratios of curve fit deaths to curve fit confirmed cases

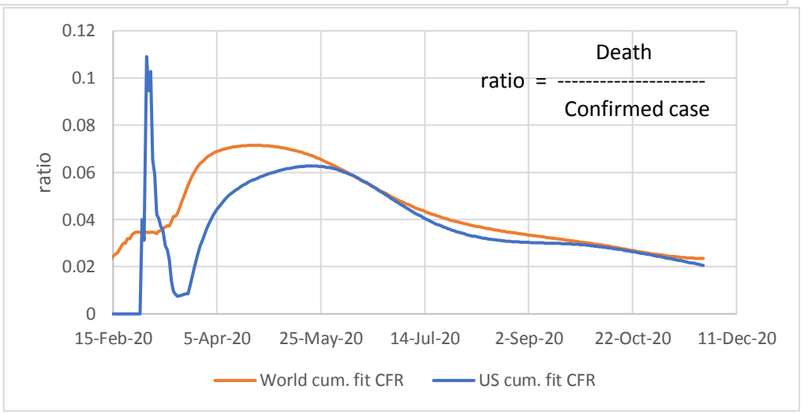


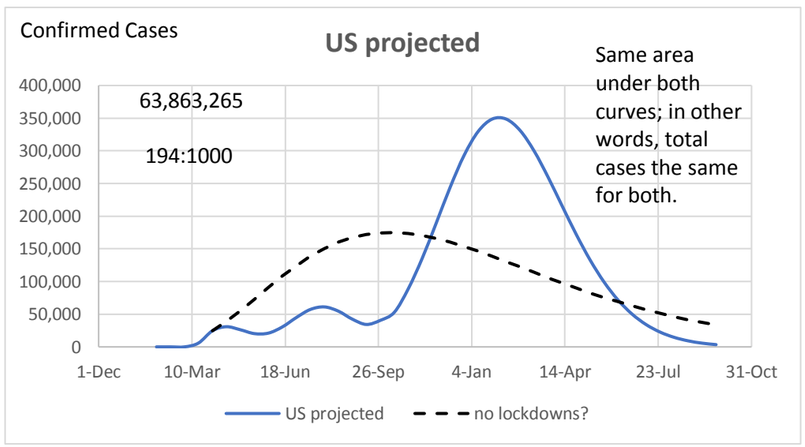


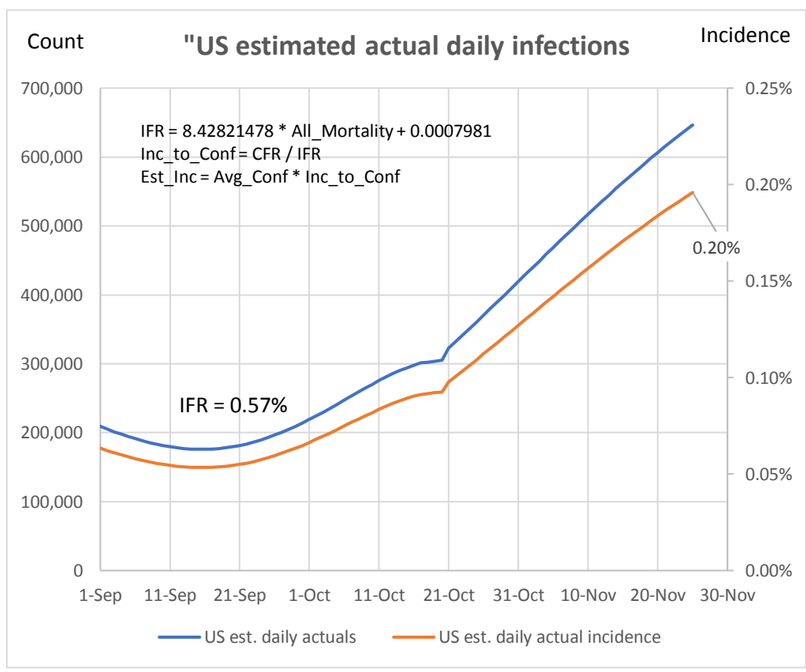






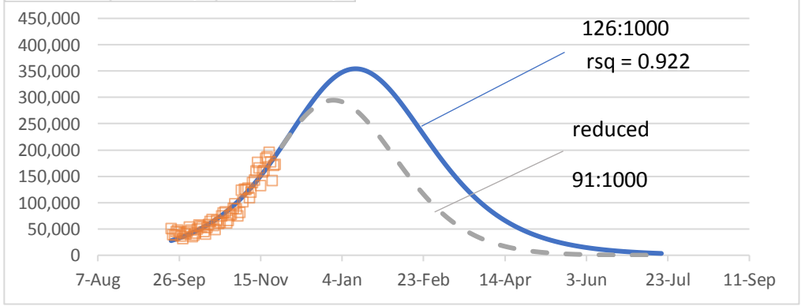






Demonstration of SIR model where R_e is linearly reduced to 0.75 at the end of the sequence:

R_e	beta	gamma	USA	final Re = 0.75
1.101701	0.232282	**0.20086495**		
4.3 days		5.0 days		



Reducing the R_e while keeping gamma constant is the same as reducing contact rate. Contact rate is reduced through isolation, lockdowns, and vaccinations.

<u>False Positives Demonstration</u>

Use 0.20% from US est. incidence above as estimated daily incidence

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

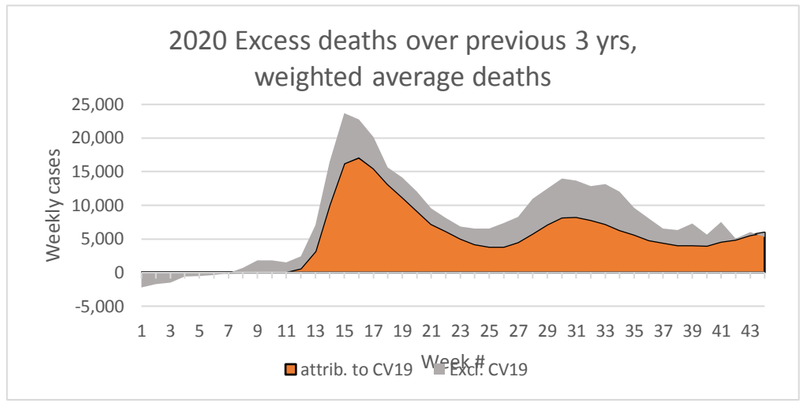
99% accuracy of test — 0.20% X 14 = 2.800%

	Positive	Negative	
test pos	2.772%	0.972%	3.74%
test neg	0.028%	96.228%	<u>96.26%</u>
	2.800%	97.200%	100.00%

False pos. is nearly 1/4 of total positives!

TRUE +	2.772%/3.74%	74.0%
FALSE +	0.972%/3.74%	<u>26.0%</u>
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):

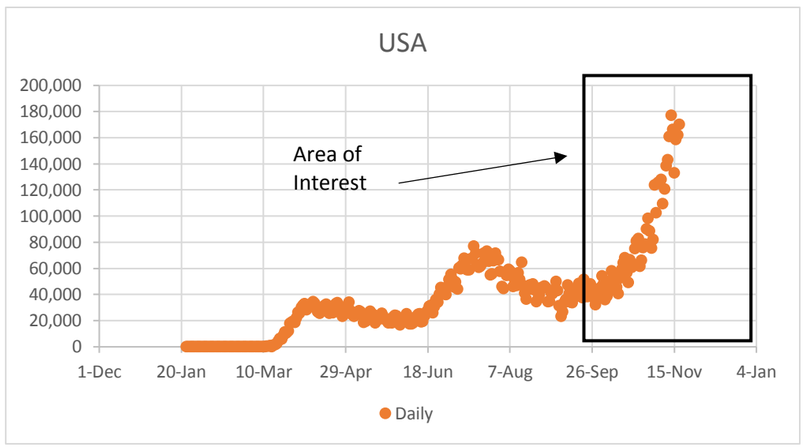
Annualized on 45 weeks

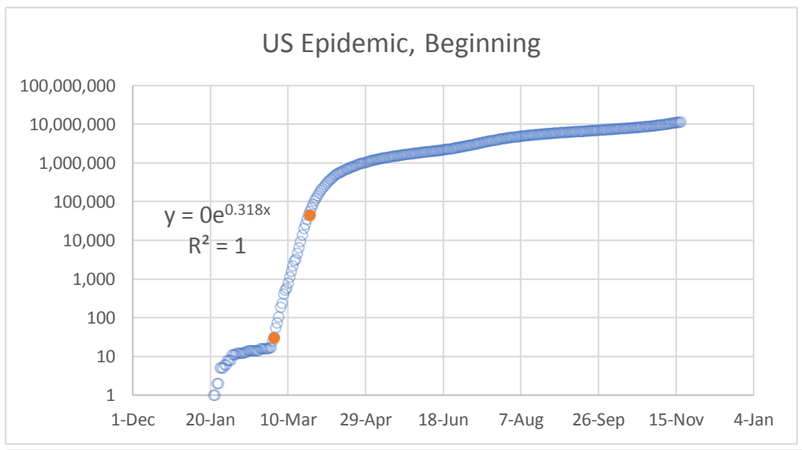
	All Cause	All Cause, excl.	CV19
3 yr average before 2020	854:100,000	854:100,000	-
2020	975:100,000	893:100,000	-
Diff.	121:100,000	38:100,000	82:100,000

3 yr average
859:100,000

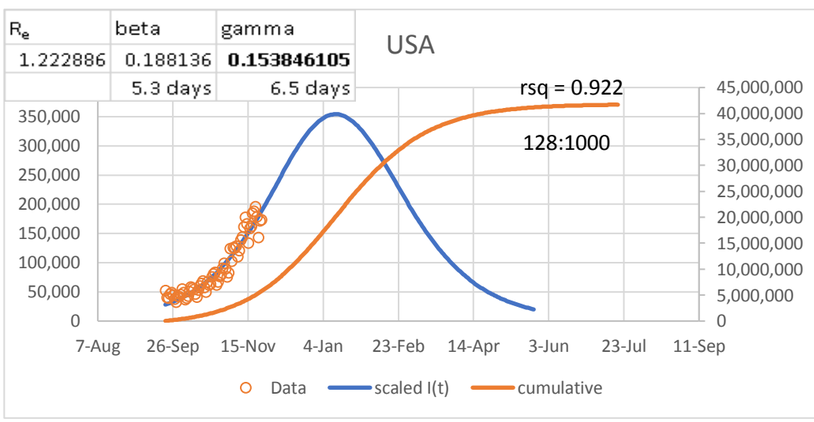
32% of All-Cause excess deaths are non-CV19

Here are some demonstrations of SIR model (and a SEIR model), using R_e, gamma, and beta

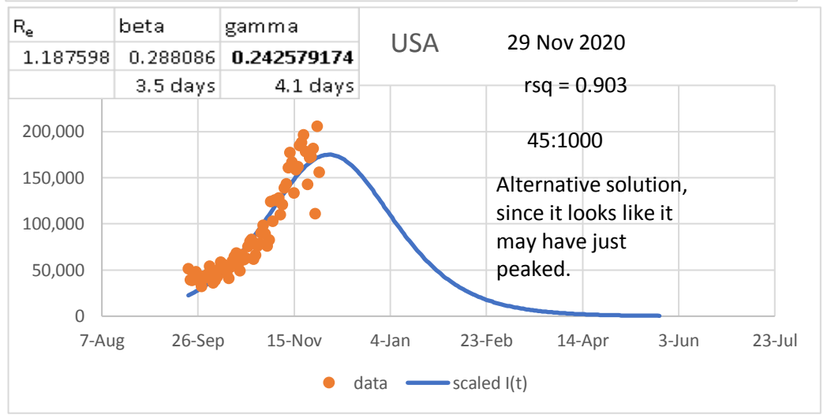




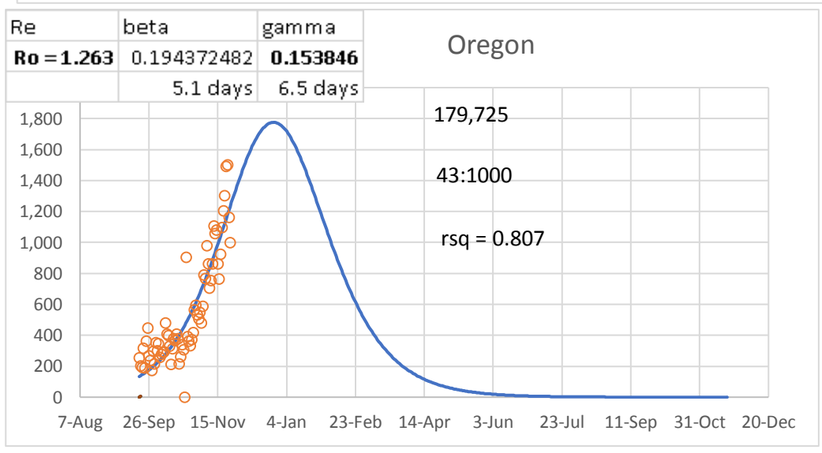
R_e	beta	gamma
1.222886	0.188136	**0.153846105**
	5.3 days	6.5 days



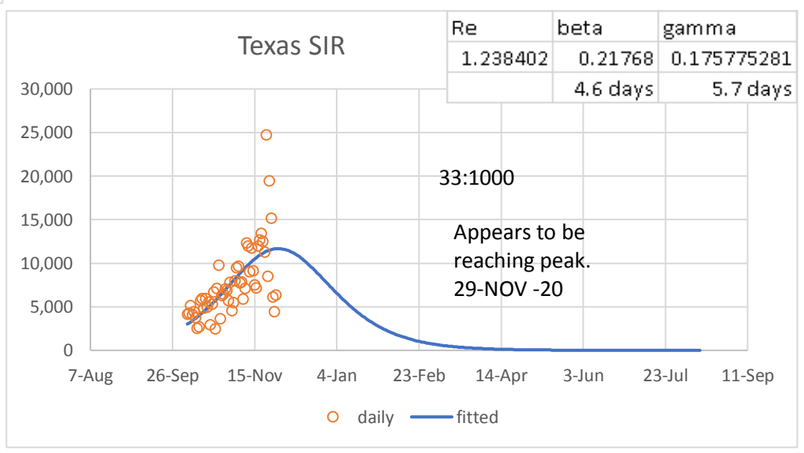
R_e	beta	gamma
1.187598	0.288086	**0.242579174**
	3.5 days	4.1 days



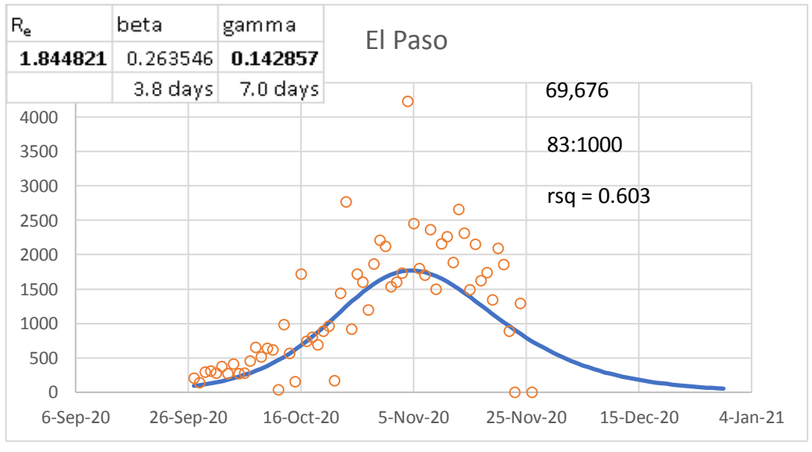
Re	beta	gamma
Ro = 1.263	0.194372482	**0.153846**
	5.1 days	6.5 days



Re	beta	gamma
1.238402	0.21768	0.175775281
	4.6 days	5.7 days



R_e	beta	gamma
1.844821	0.263546	**0.142857**
	3.8 days	7.0 days



R_e	alpha	beta	gamma
1.266925	**0.14087**	0.194912	**0.153846**
	7.1 days	5.1 days	6.5 days