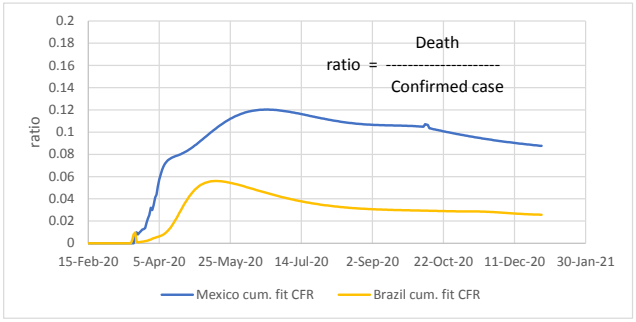
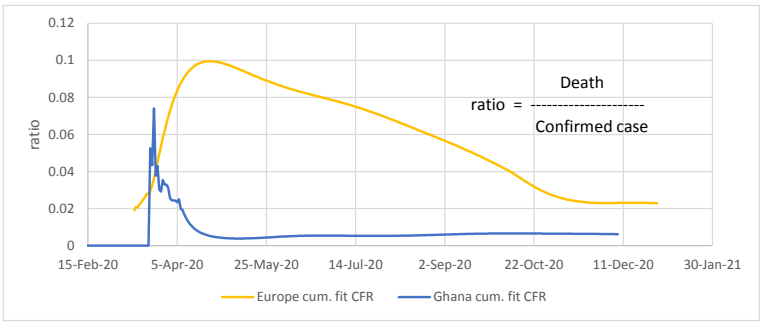
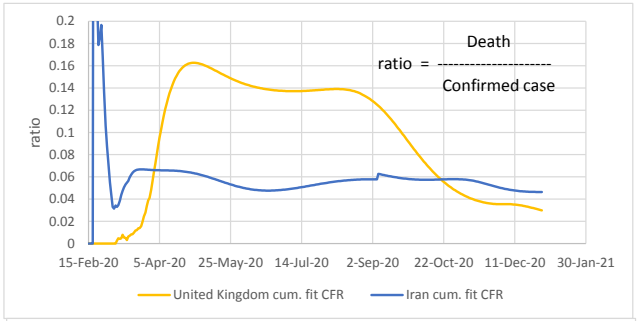
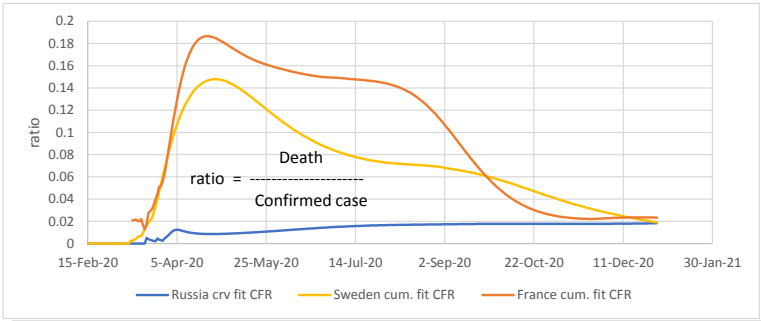
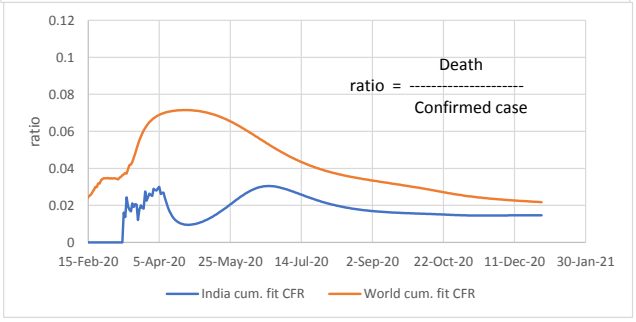
Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)

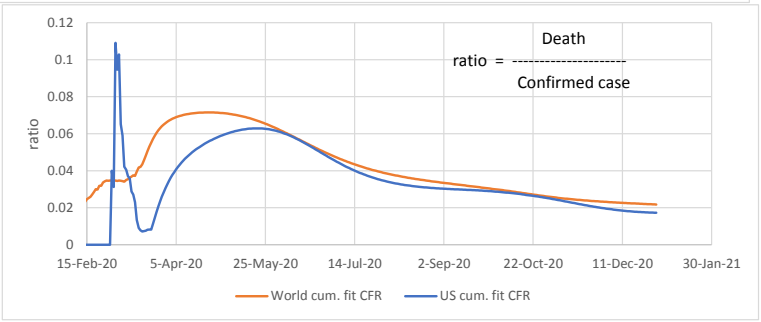


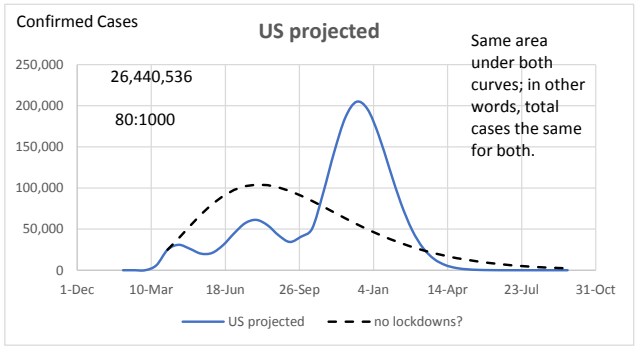


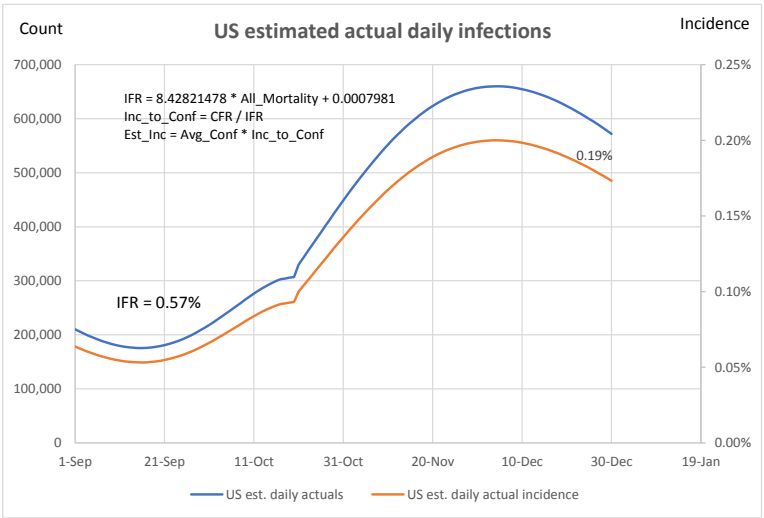




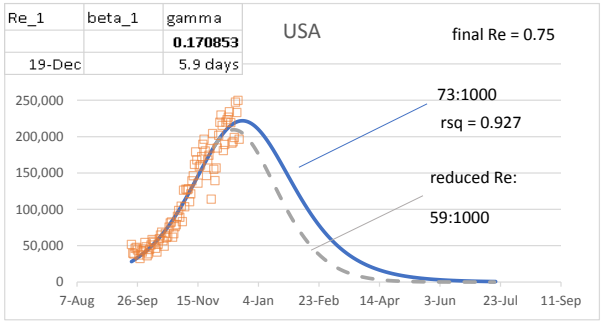








Demonstration of SIR model where R_e is linearly reduced to 0.75 at the end of the sequence:



Reducing the R_e while keeping gamma constant is the same as reducing contact rate. Contact rate is reduced through isolation, lockdowns, and vaccinations. This case about 14:1000 benefit (19%).

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

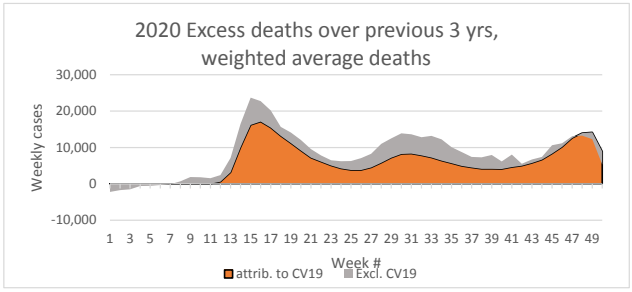
99% accuracy of test 0.19% X 14 = 2.660%

	Positive	Negative	
test pos	2.633%	0.973%	3.61%
test neg	0.027%	96.367%	96.39%
	2.660%	97.340%	100.00%

False pos. is a bit over 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 50 weeks

	All Cause	All Cause, excl. CV19	CV19
3 yr average before 2020	857:100,000	857:100,000	-
2020	988:100,000	893:100,000	-
Diff.	131:100,000	37:100,000	94:100,000
Diff.	+15.3%	+4.3%	+11.0%

3 yr average weighted

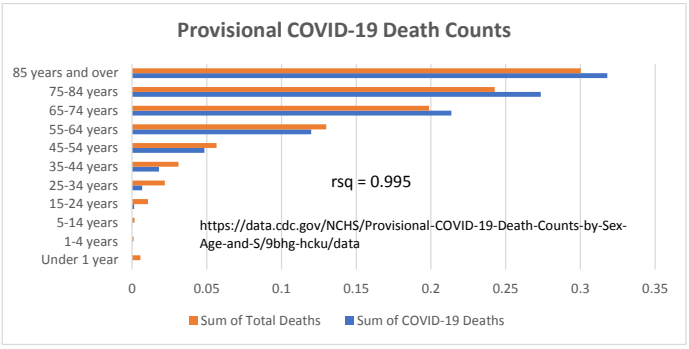
859:100,000

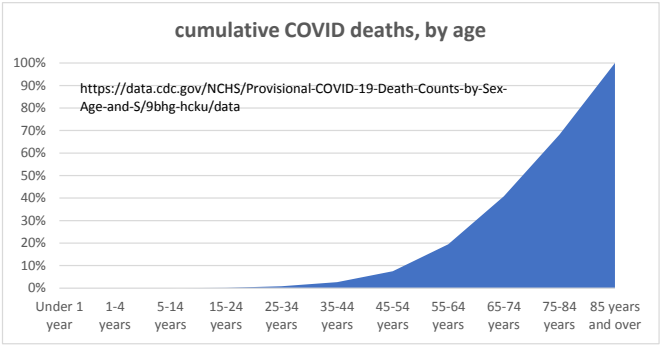
28% of All-Cause excess deaths are non-CV19

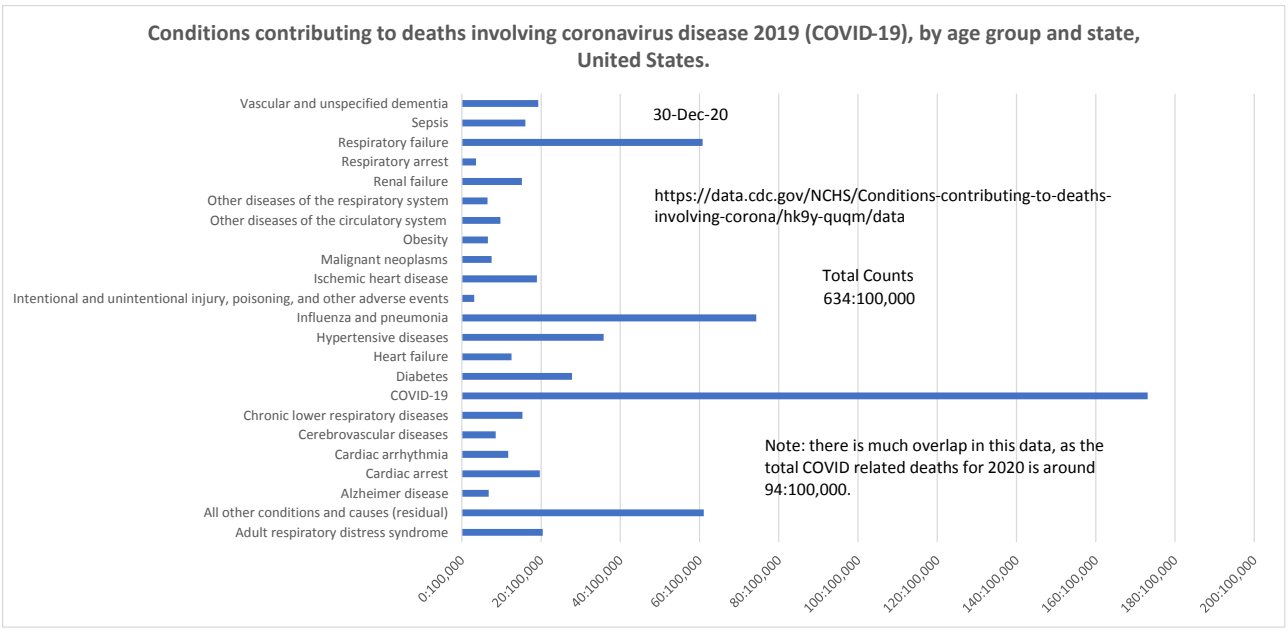
gamma = 0.171 K = 0.318 gamma=0.286

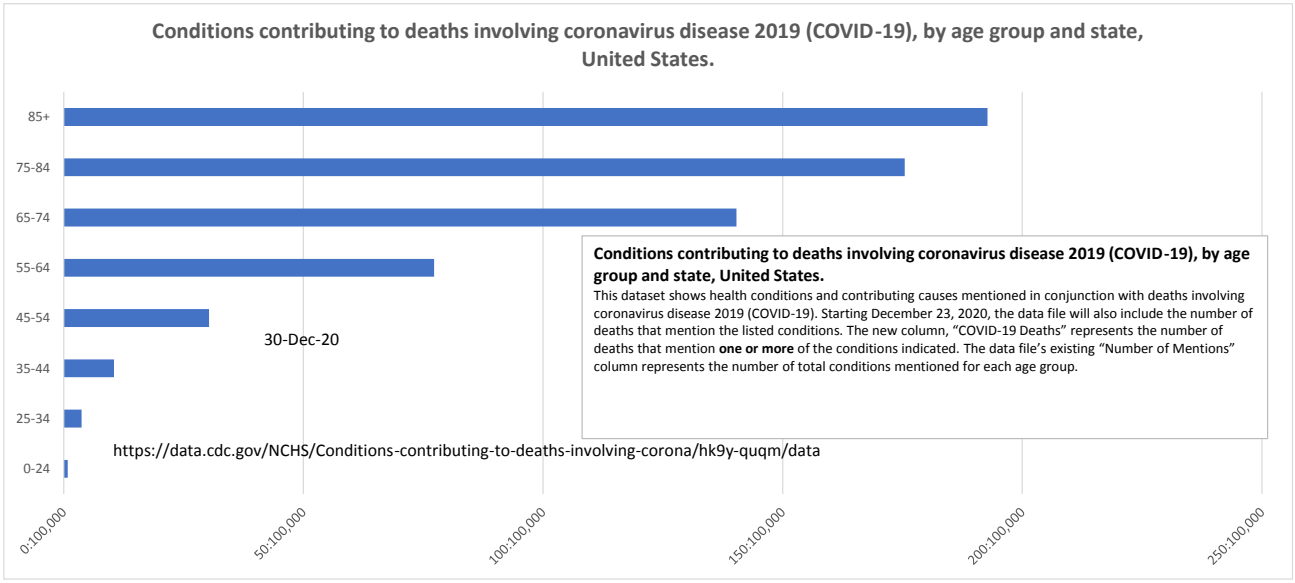
R_o = exp(K/gamma) = 6.421 221,571,317

$R > [1 - 1/R_0]/N$ $R >$ 278,610,004 <=Herd immunity

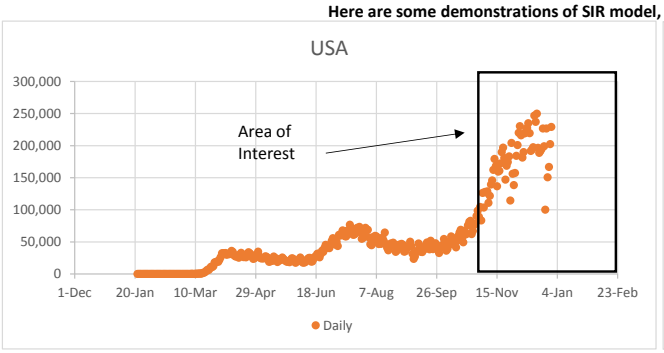


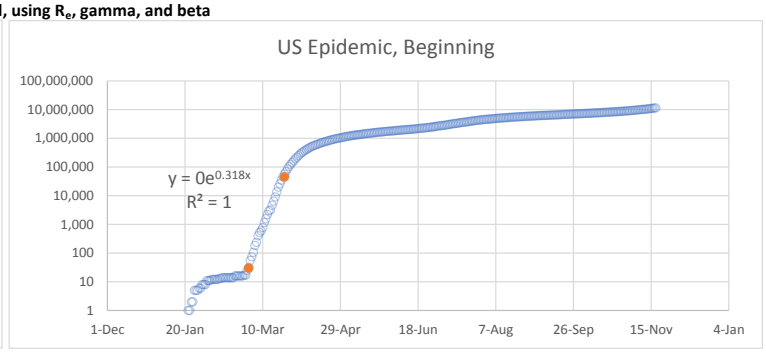




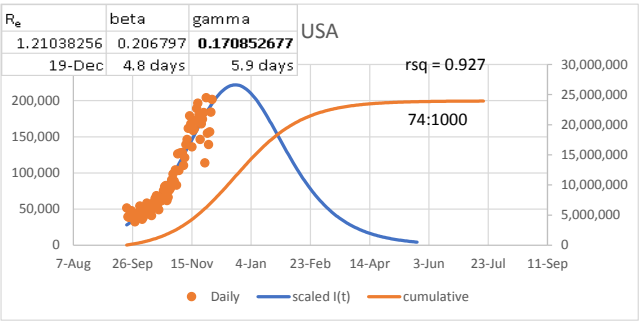


Here are some demonstrations of SIR model, using R_e, gamma, and beta

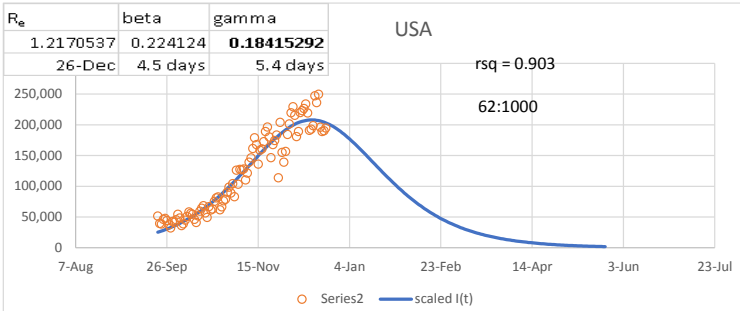




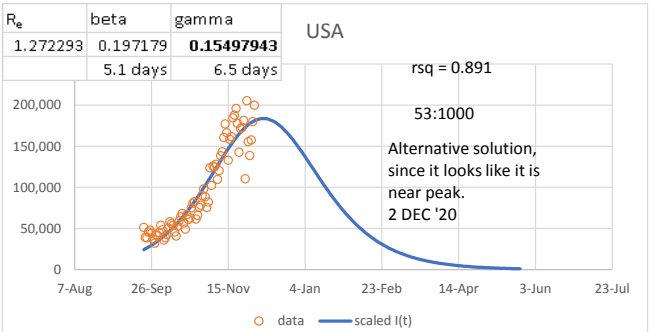
R_e	beta	gamma
1.21038256	0.206797	**0.170852677**
19-Dec	4.8 days	5.9 days

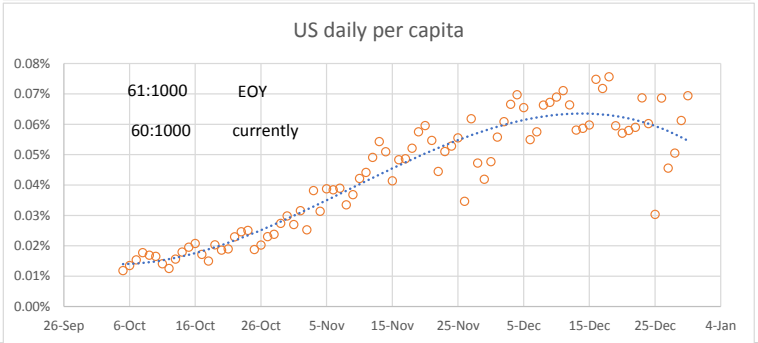


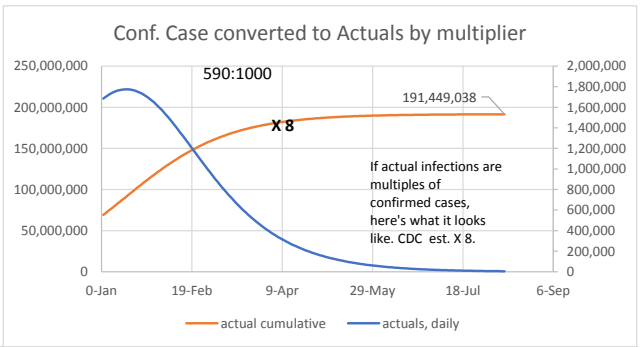
R_e	beta	gamma
1.2170537	0.224124	**0.18415292**
26-Dec	4.5 days	5.4 days



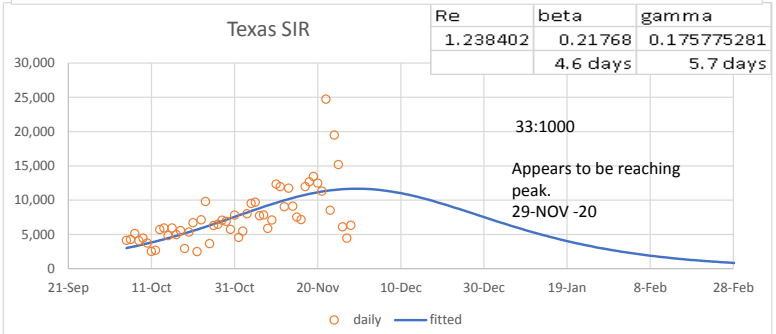
R_e	beta	gamma
1.272293	0.197179	**0.15497943**
	5.1 days	6.5 days



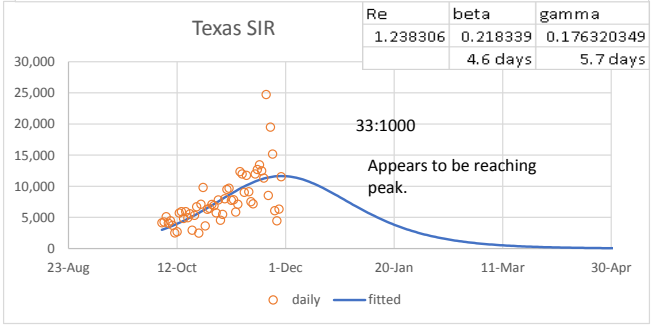




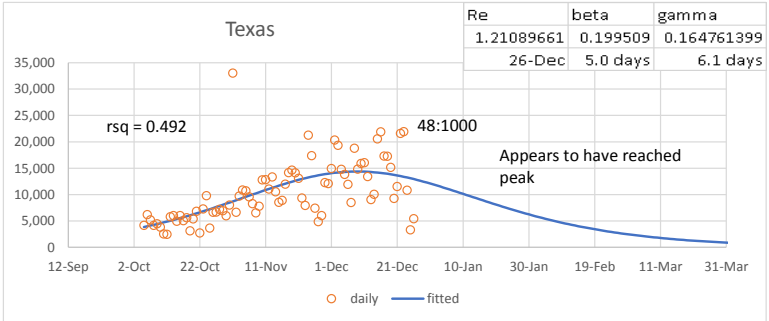
Re	beta	gamma
1.238402	0.21768	0.175775281
	4.6 days	5.7 days



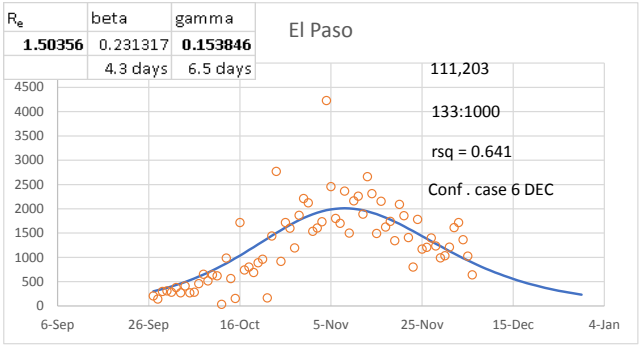
Re	beta	gamma
1.238306	0.218339	0.176320349
	4.6 days	5.7 days



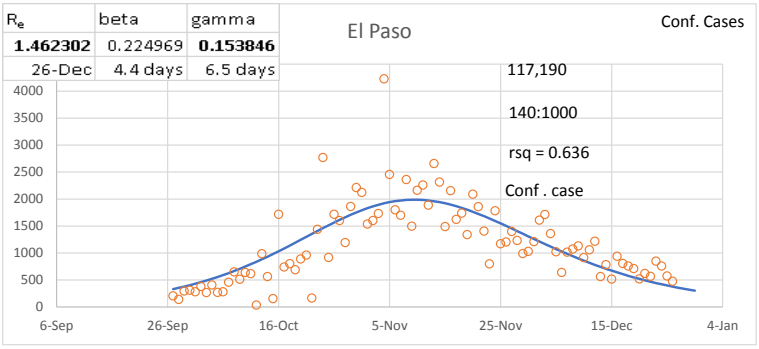
Re	beta	gamma
1.21089661	0.199509	0.164761399
26-Dec	5.0 days	6.1 days



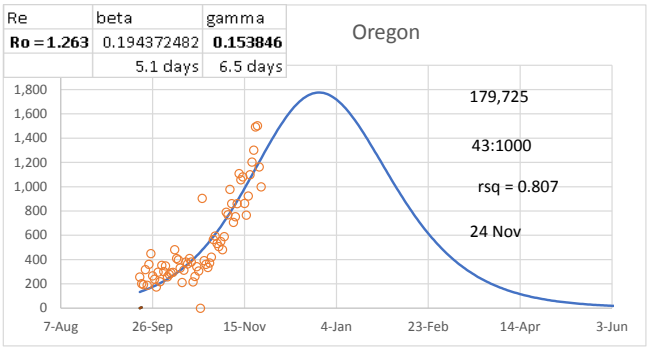
R_e	beta	gamma
1.50356	0.231317	**0.153846**
	4.3 days	6.5 days



R_e	beta	gamma
1.462302	0.224969	**0.153846**
26-Dec	4.4 days	6.5 days



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



Re	beta	gamma
Ro = 1.253	0.306772445	**0.24476**
12/26/2020	3.3 days	4.1 days