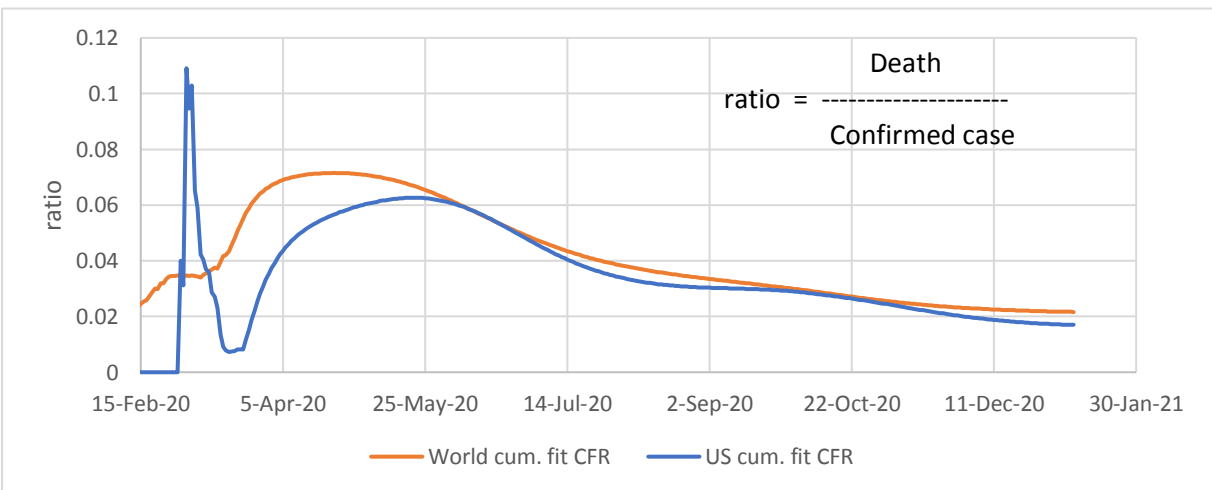
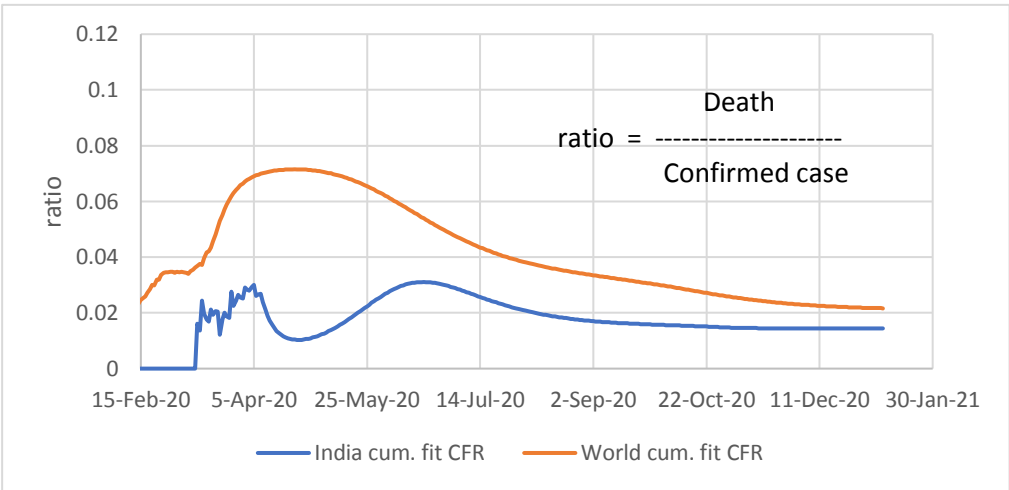
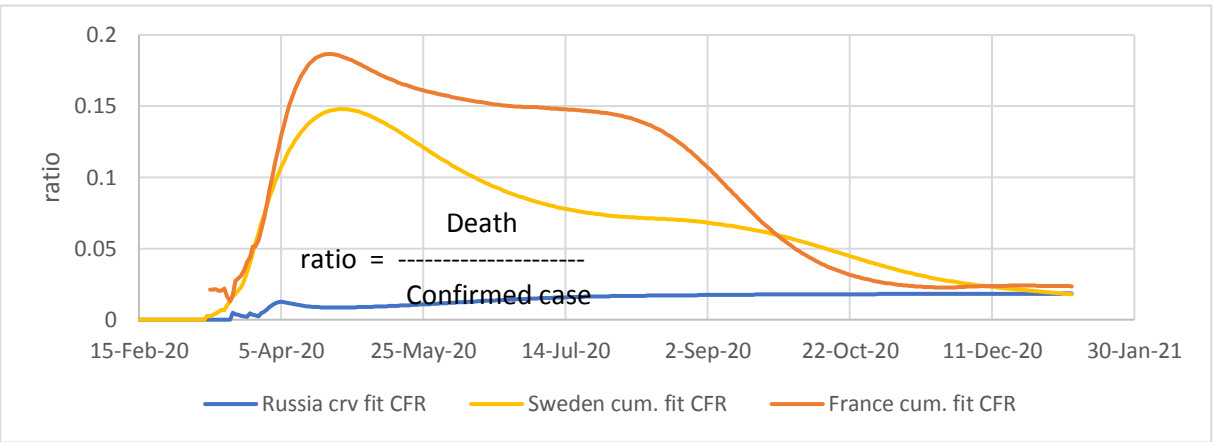
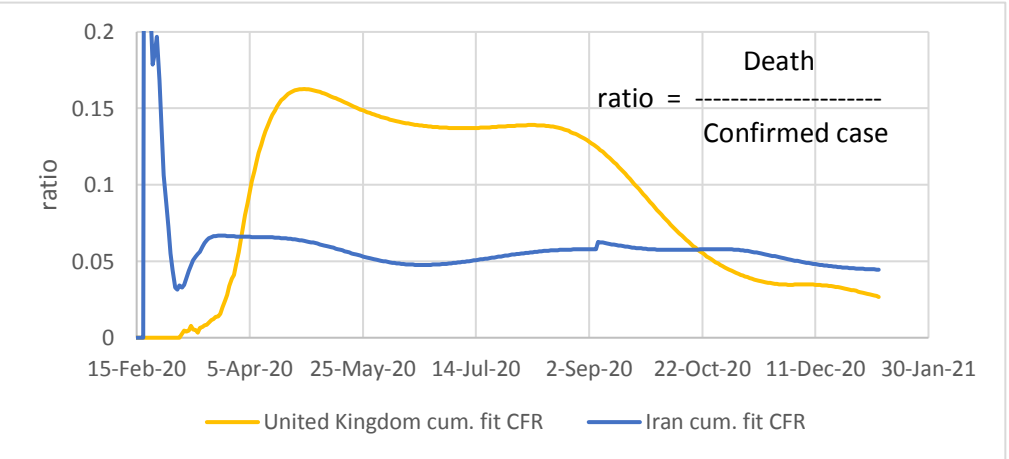
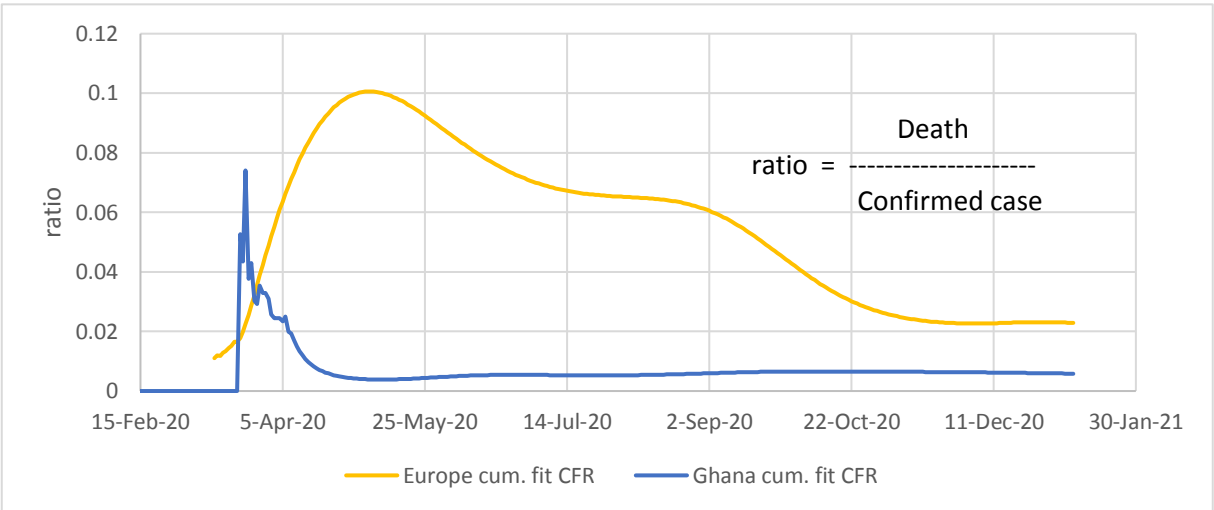
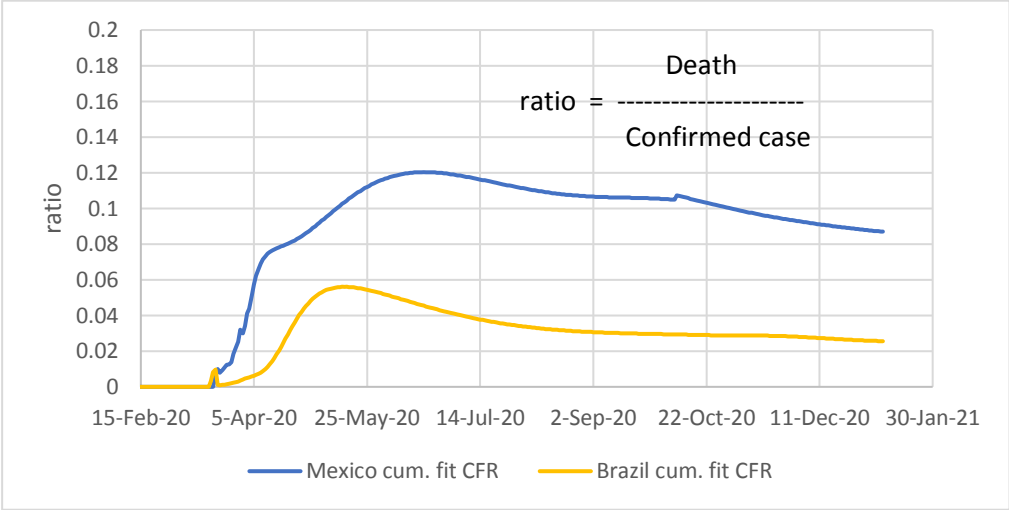
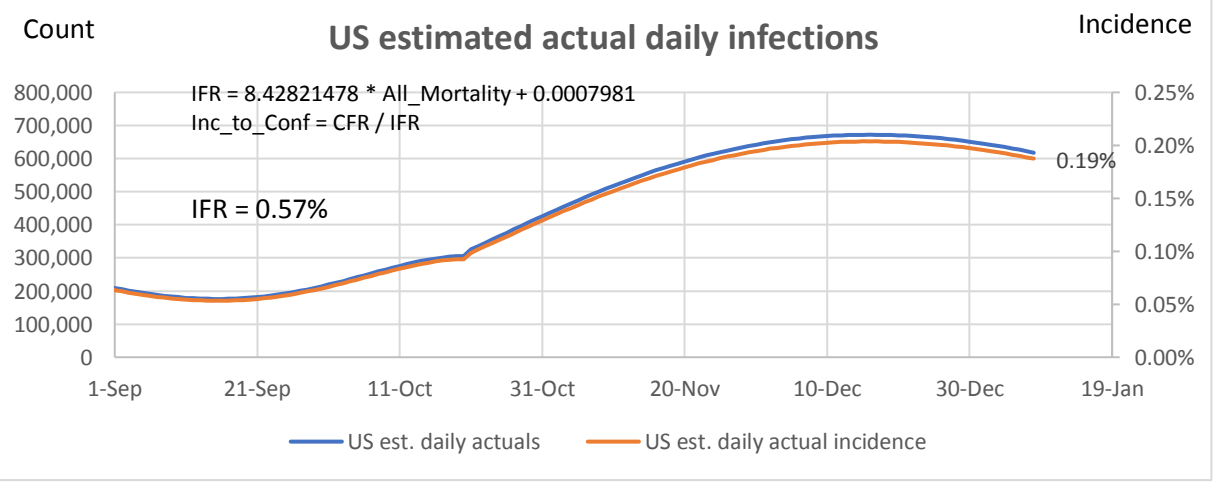
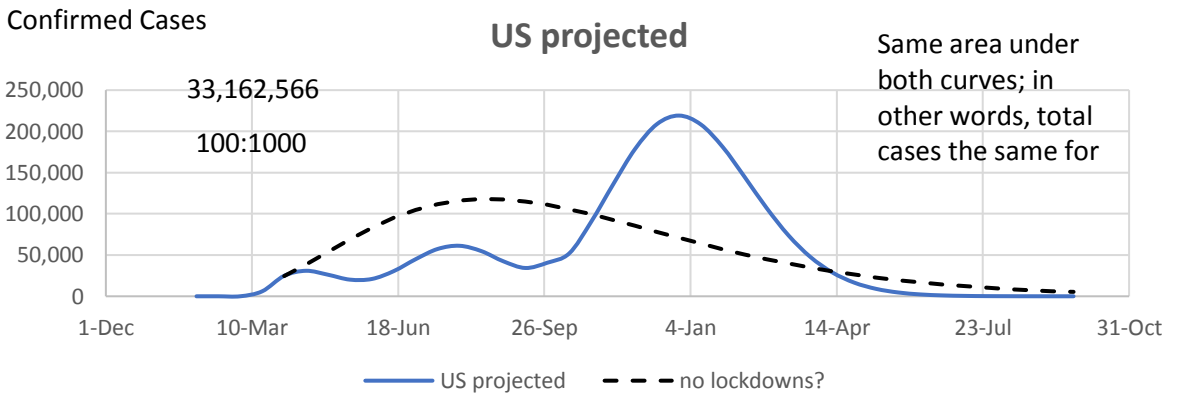
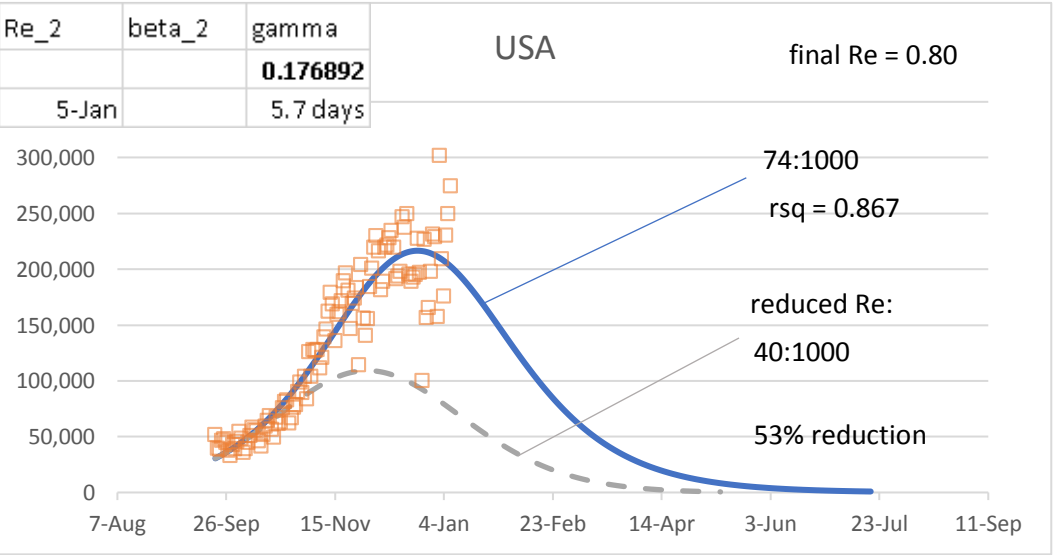
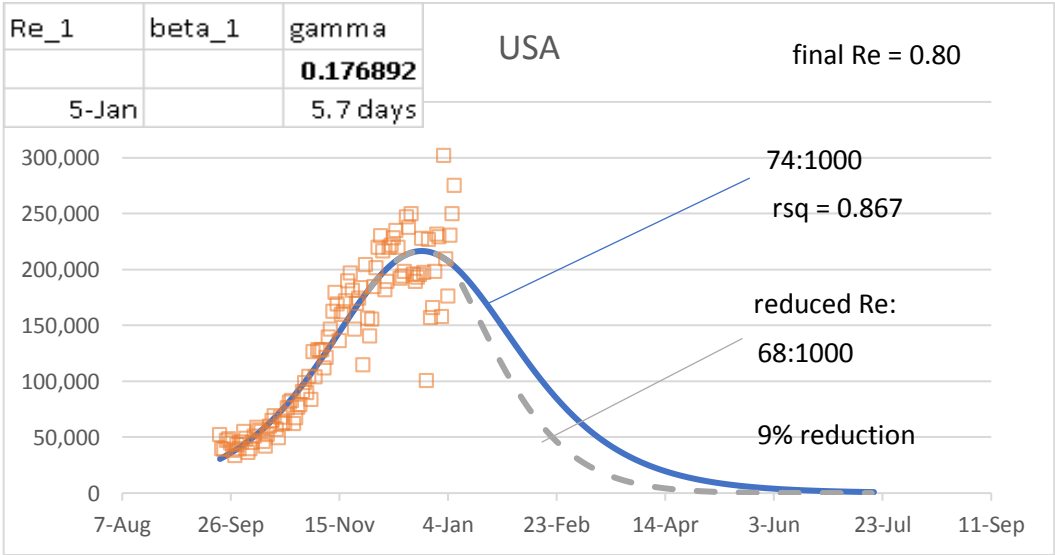


Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)



Demonstration of SIR model where  $R_e$  is linearly reduced to 0.80 at the end of the sequence:



**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%

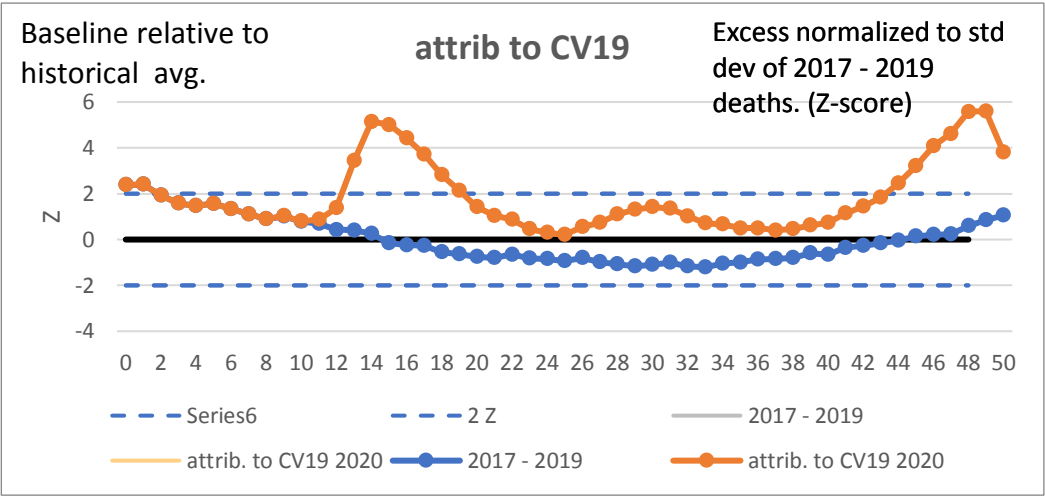
	Positive	Negative	
test pos	2.633%	0.973%	3.61%
test neg	0.027%	96.367%	96.39%
	2.660%	97.340%	100.00%

False pos. is a bit over 1/4 of total positives!

	TRUE +	FALSE +	Total
	2.633%/3.61%	0.973%/3.61%	-----
	73.0%	27.0%	100.00%

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.

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	Weeks are labelled 0 thru 51		
	All Cause	All Cause, excl. CV19	CV19
3 yr average before 2020	859:100,000	876:100,000	-
2020	1009:100,000	909:100,000	-
Diff.	133:100,000	34:100,000	99:100,000

3 yr average	26% of All-Cause excess deaths are non-CV19
859:100,000	

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

$K = 0.318$

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

$\gamma = 0.286$   $R > [1 - 1/R_o]/N = 3.04$  67%

$R$  is recovered variable.

