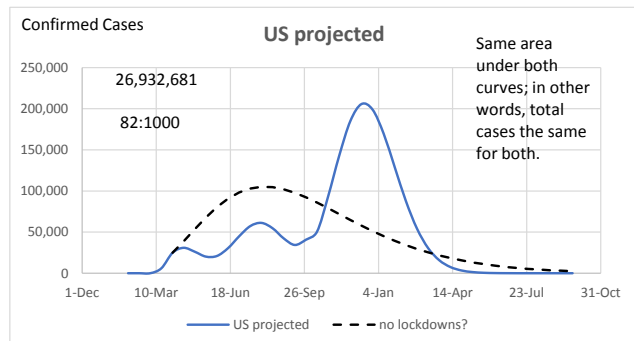
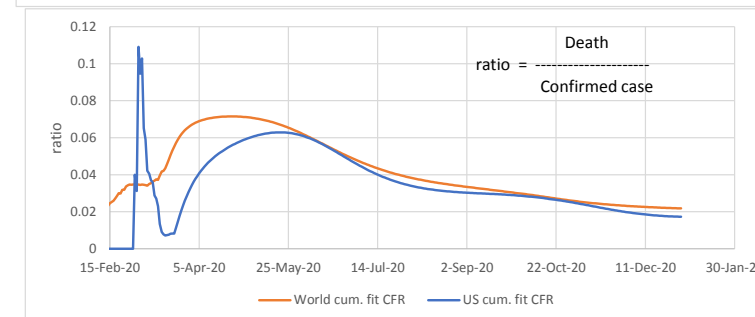
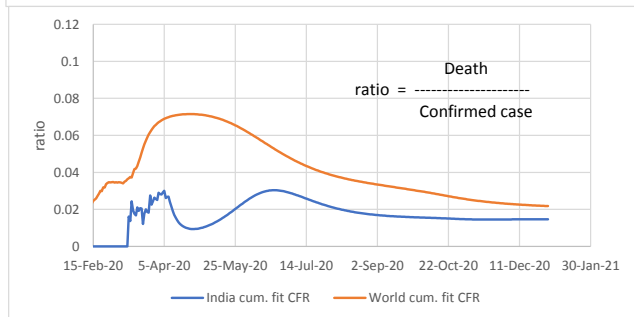
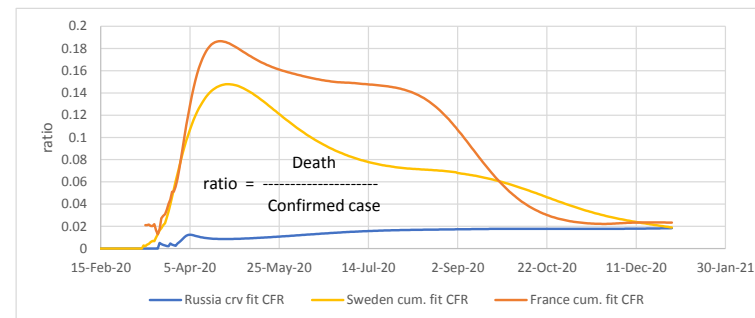
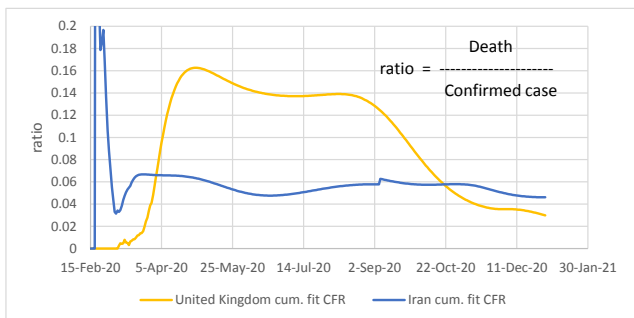
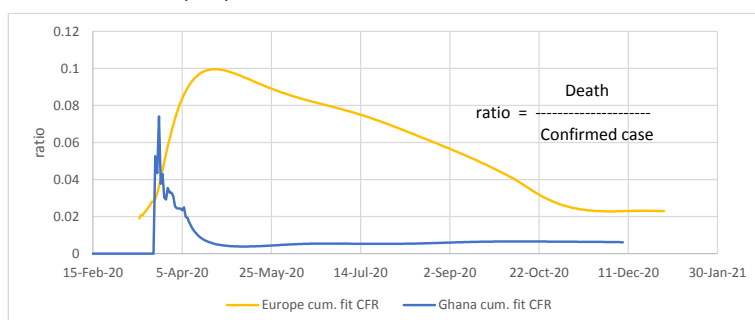
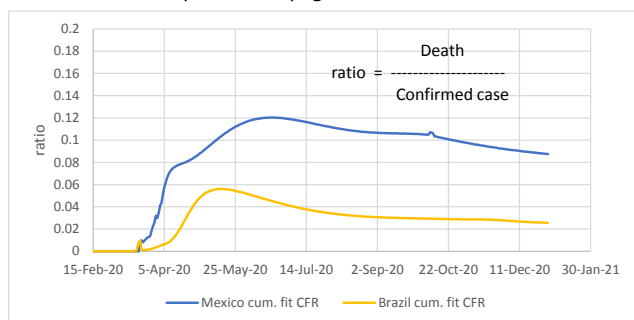
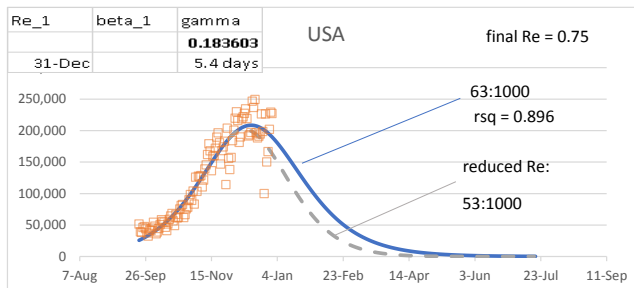


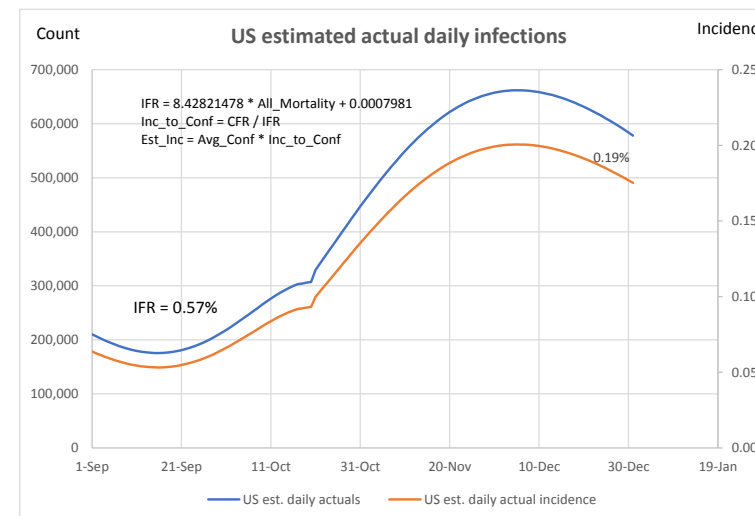
# Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)



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 10:1000 benefit (16%).



## 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

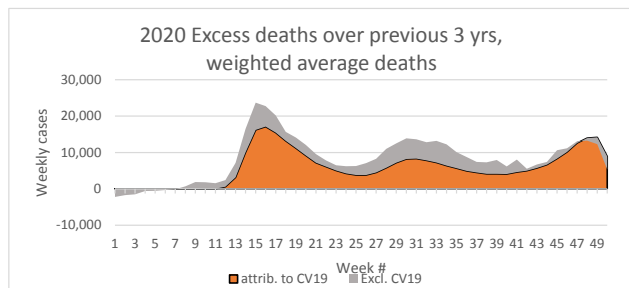
0.19% X 14 = 2.660%

	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%	27.0%
	73.0%	27.0%	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

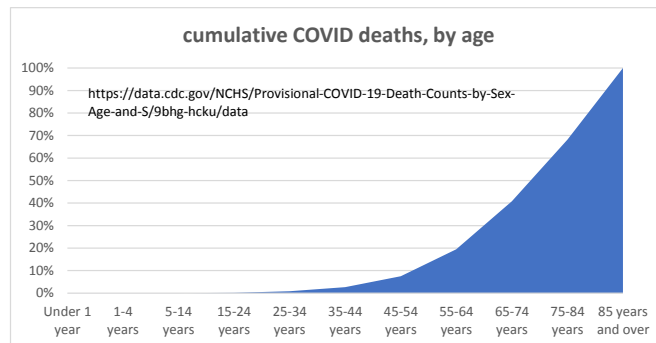
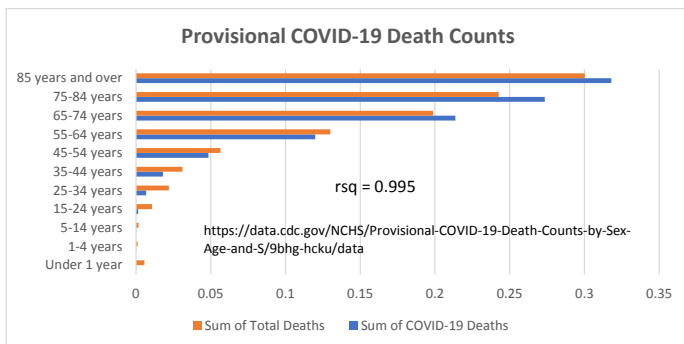
859:100,000

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

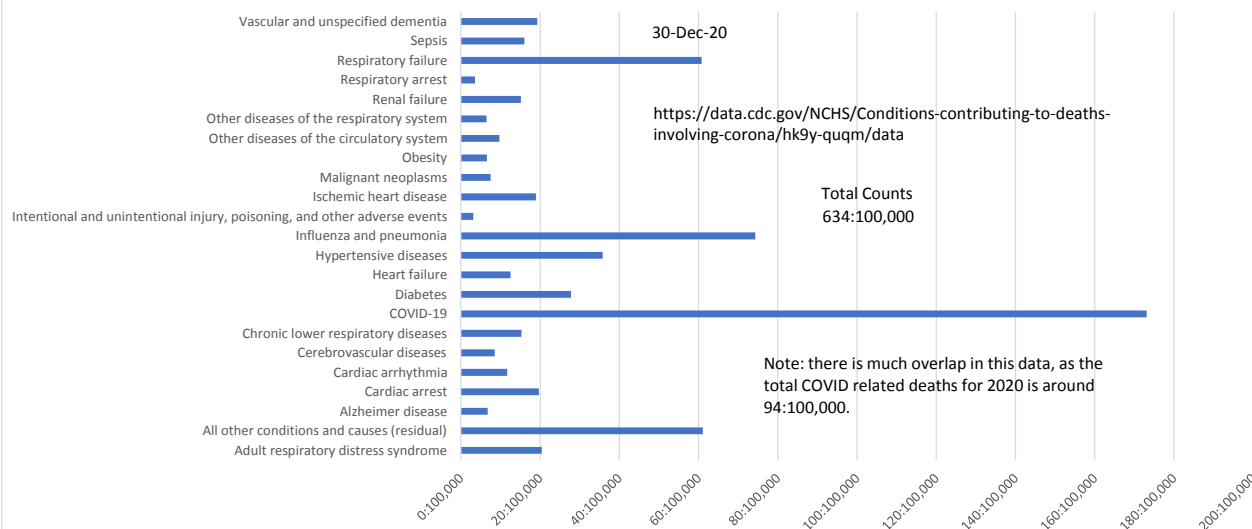
$$\gamma = 0.171 \quad K = 0.318 \quad \gamma = 0.286$$

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

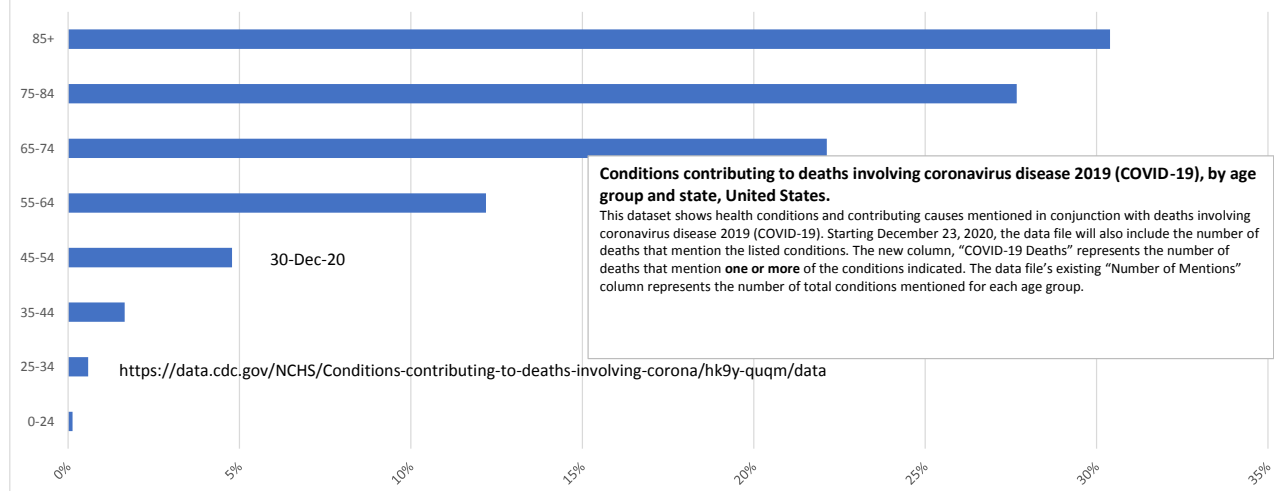
$$R > [1 - 1/R_o] / N \quad R > 278,610,004 \leq \text{Herd immunity}$$



### Conditions contributing to deaths involving coronavirus disease 2019 (COVID-19), by age group and state, United States.



### Conditions contributing to deaths involving coronavirus disease 2019 (COVID-19), by age group and state, United States.



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

