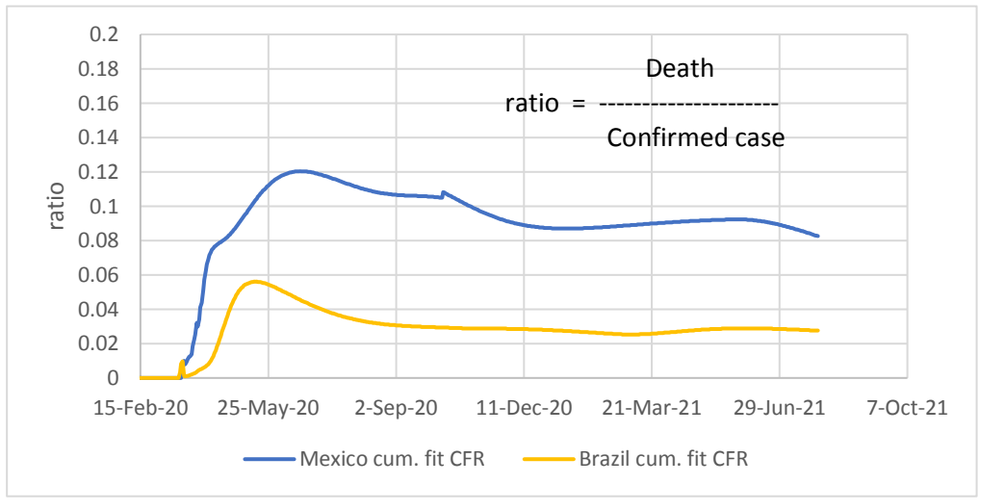
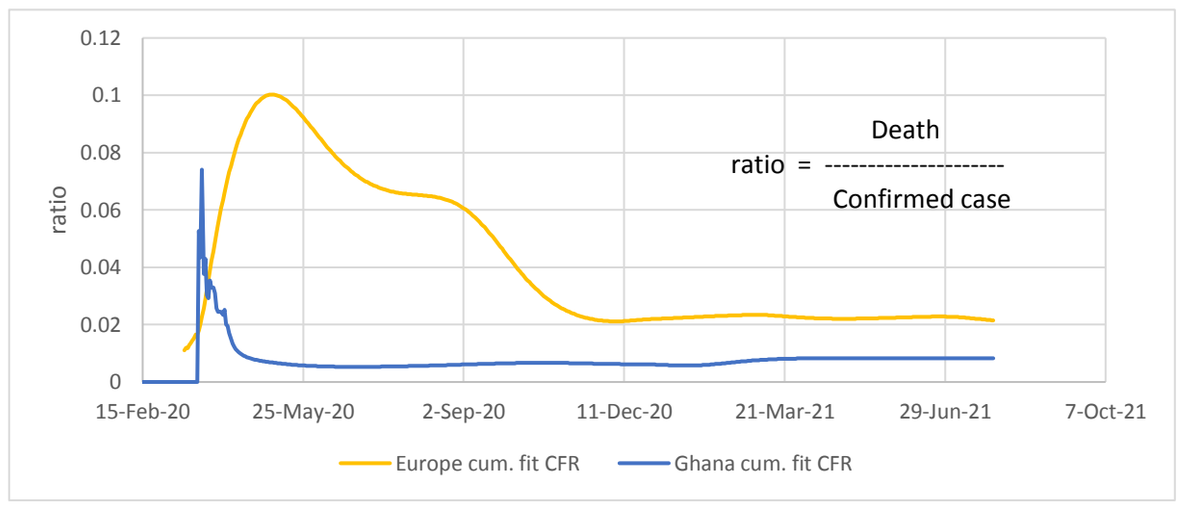
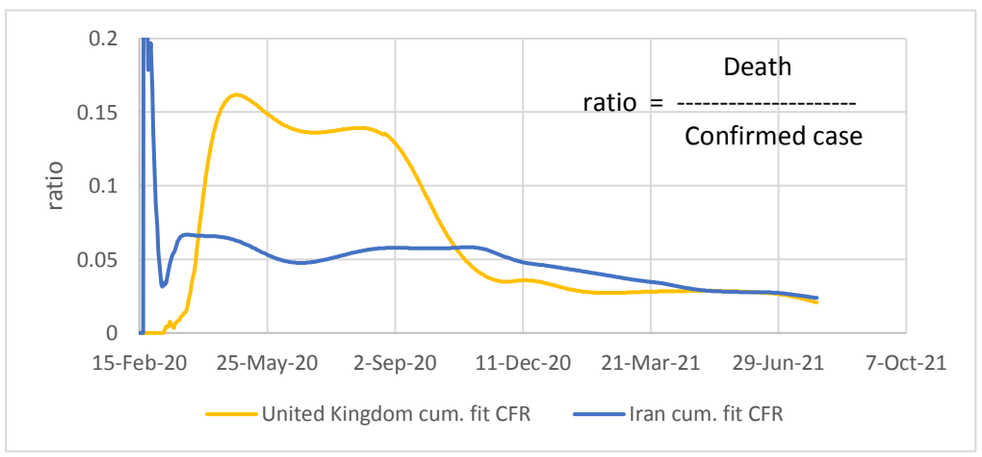
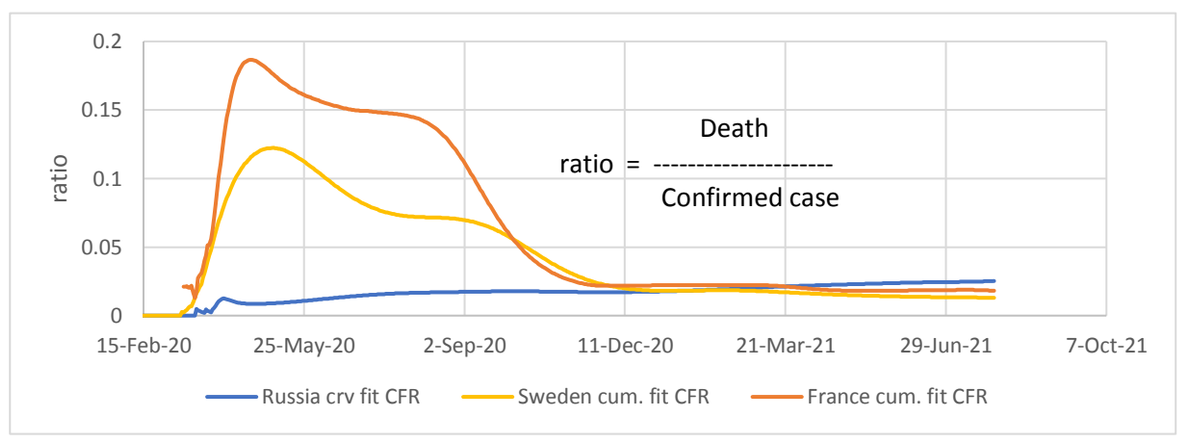
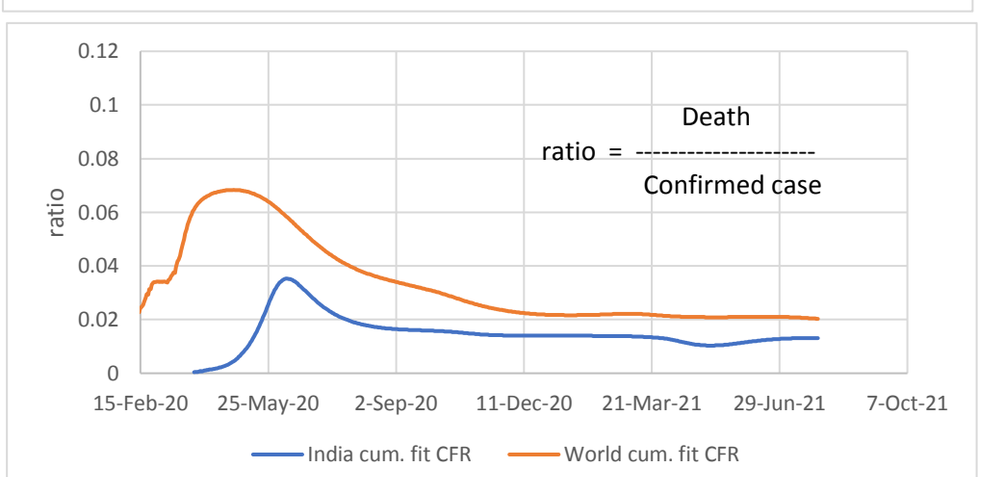
Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)

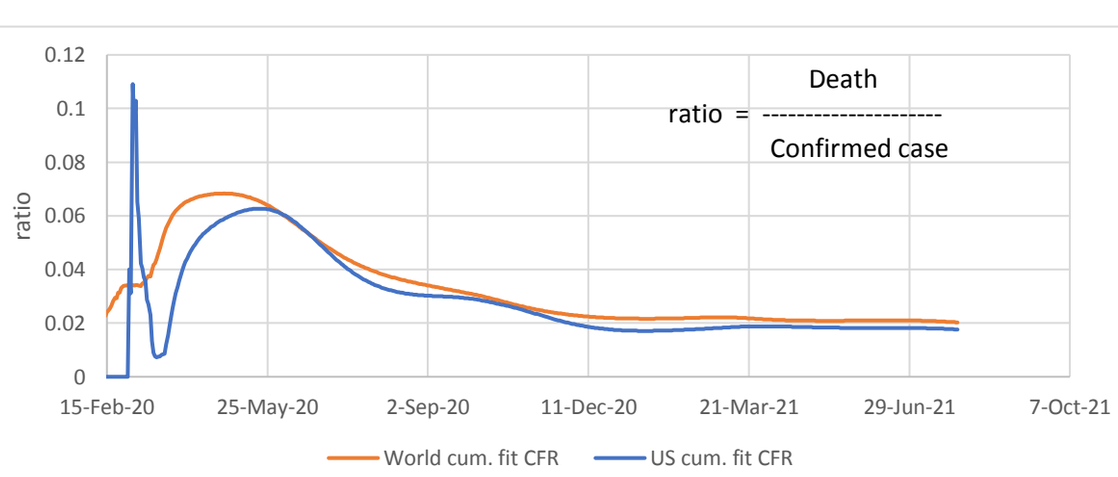




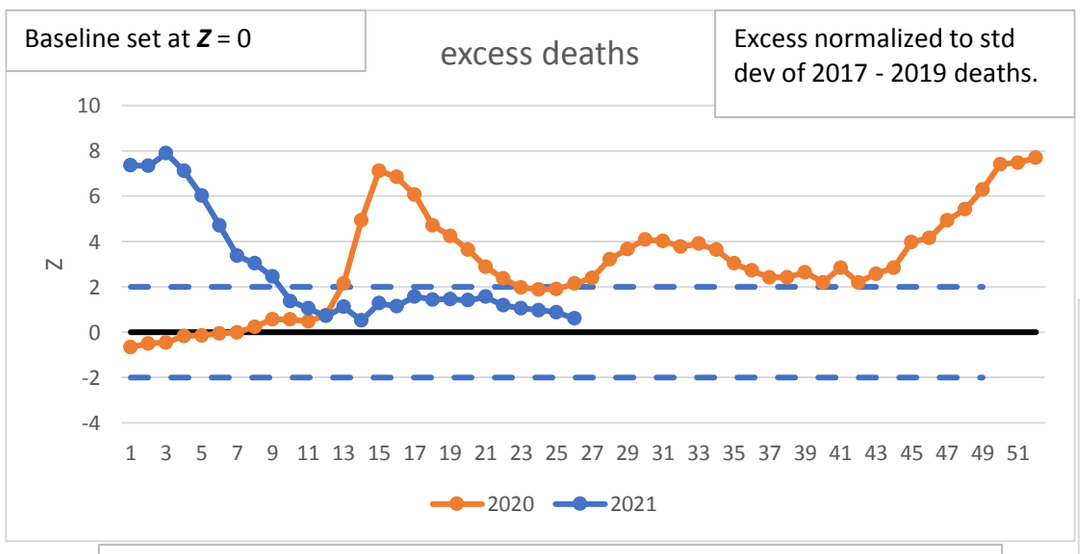






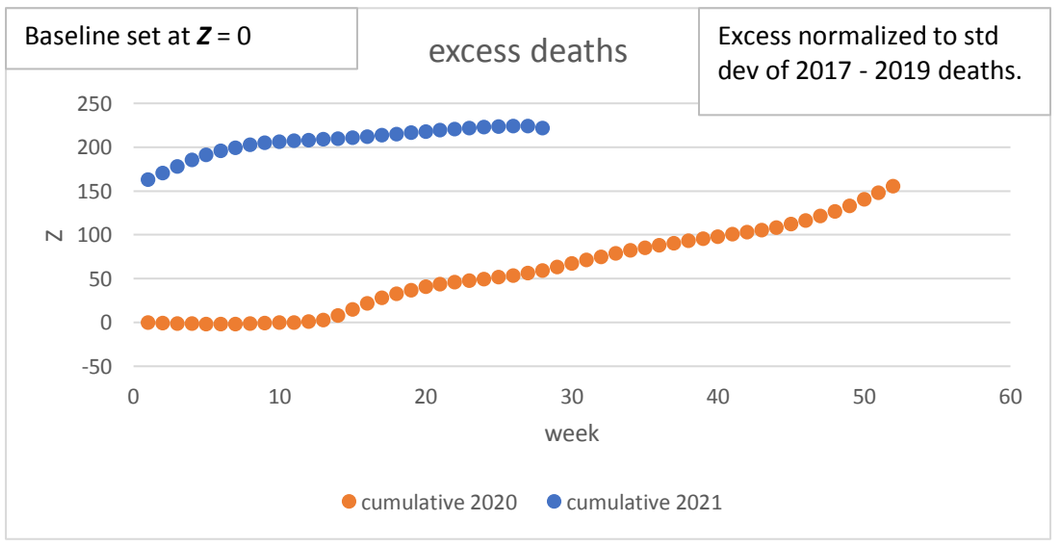


Excess deaths as a Z score:

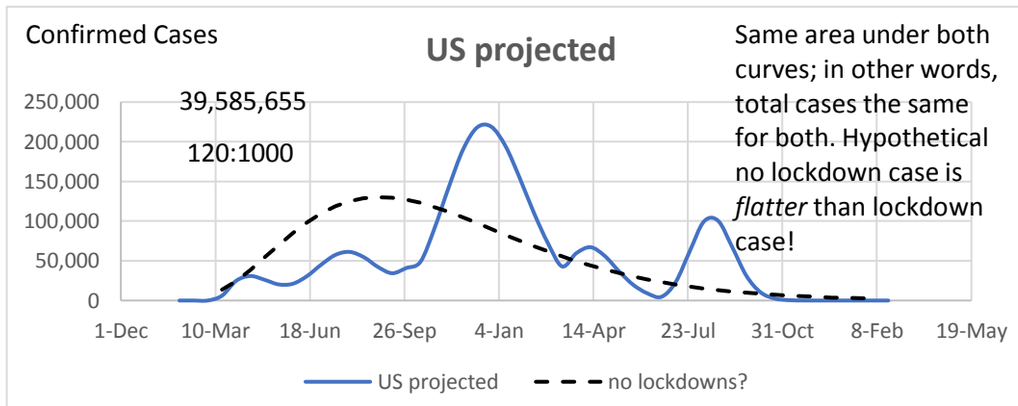


Above based on Z score of two year standard deviation from 2017-2019. What follows is cumulative plot of same.

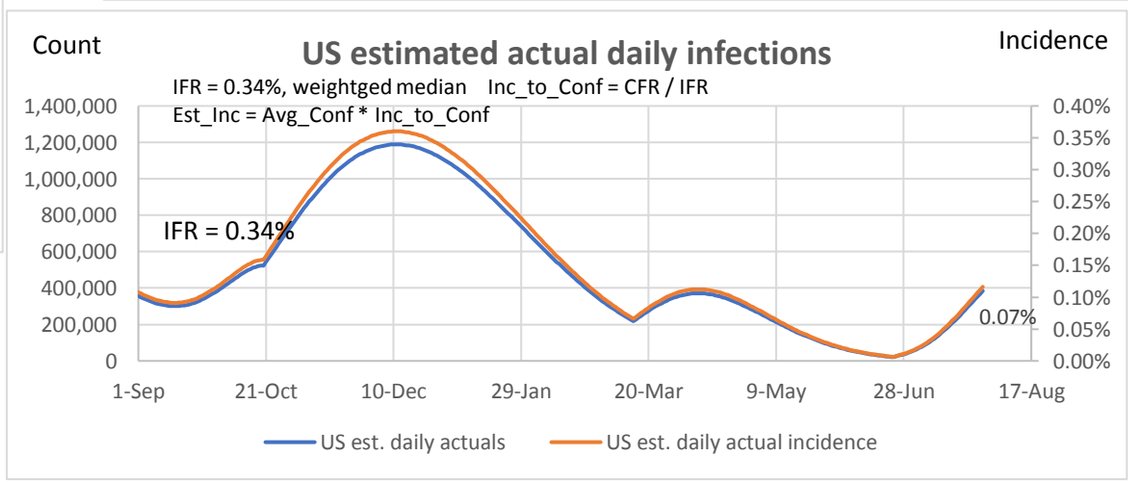
Data in recent weeks are incomplete. Only 60% of death records are submitted to NCHS within 10 days of the date of death, and completeness varies by jurisdiction. Data are not weighted and counts are likely



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



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



False Positives Demonstration

Use 0.07% as estimated daily incidence

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

0.07% X 14 = 0.980%

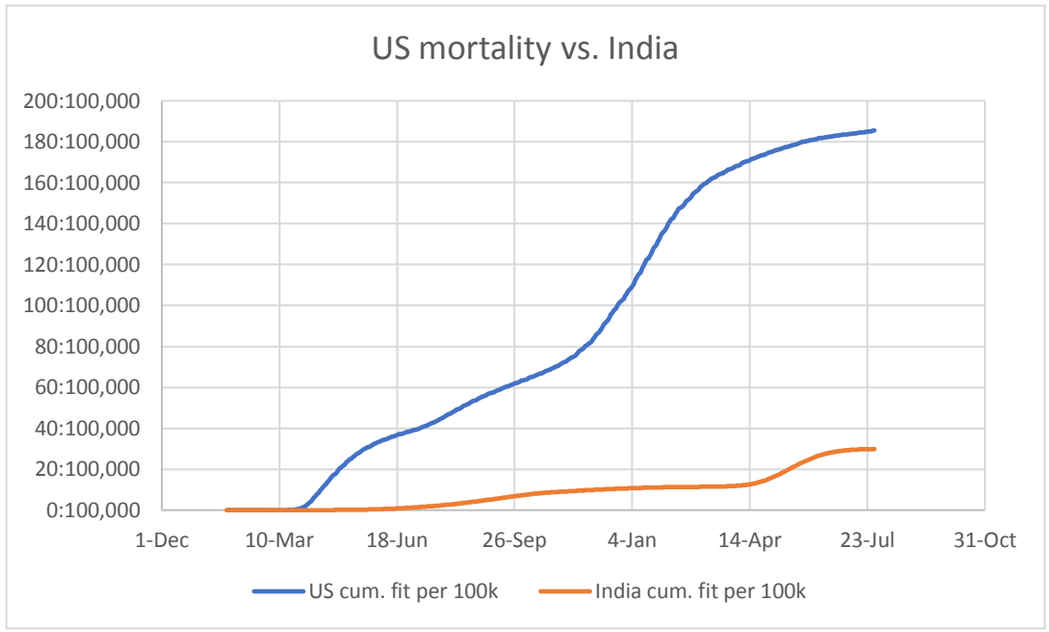
99% accuracy of test

	Positive	Negative	
test pos	0.970%	0.990%	1.96%
test neg	0.010%	98.030%	98.04%
	0.980%	99.020%	100.00%

False pos. is more than half of total positives.

TRUE +	0.97%/1.96%	49.5%
FALSE +	0.99%/1.96%	50.5%
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, 2020 (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	1016:100,000	905:100,000	-
Diff.	157:100,000	46:100,000	111:100,000

3 yr average
859:100,000

29% of All-Cause excess deaths are non-CV19

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

USA Excess Deaths to date (from CDC data):

28 weeks	All Cause	All Cause, excl. CV19	CV19
3 yr average before 2020	455:100,000	455:100,000	-
2021	539:100,000	467:100,000	-
Diff.	84:100,000	12:100,000	72:100,000

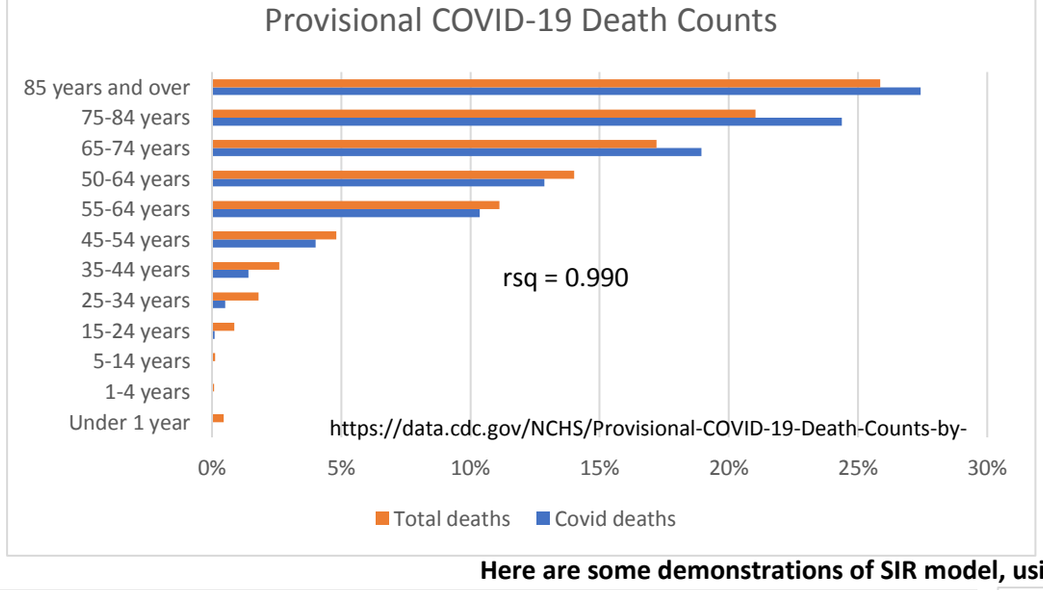
3 yr average
859:100,000

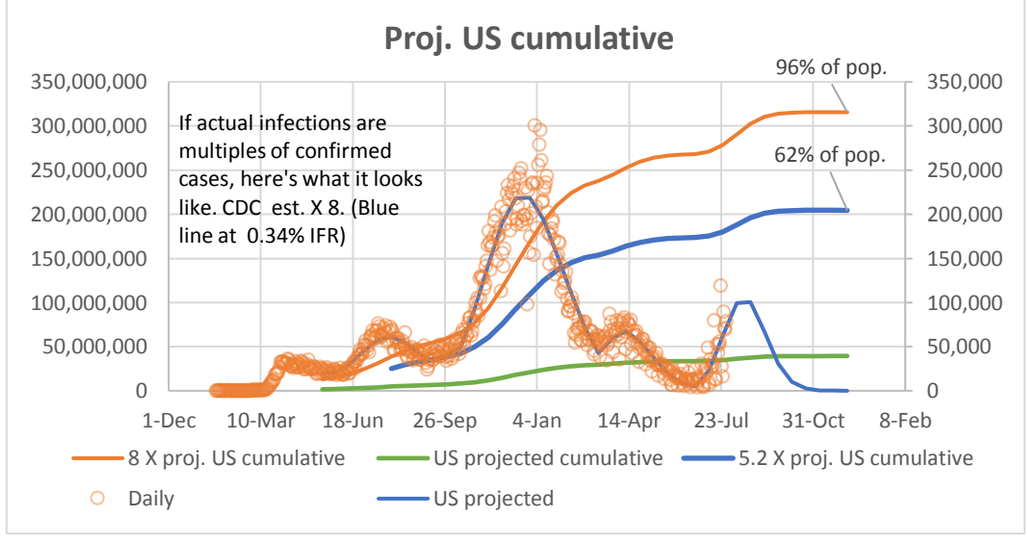
14% of All-Cause excess deaths are non-CV19

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

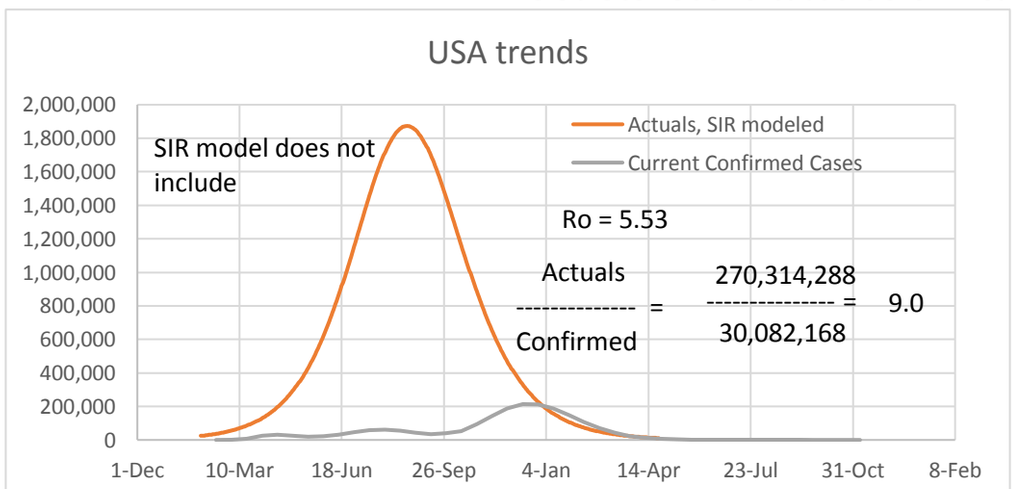
	K = 0.318	R_o:	R :	
gamma = 0.171	R_o = exp(K/gamma)	= 6.42	84%	<=Herd immunity
gamma = 0.286	R > 1- 1/R_o	= 3.04	67%	

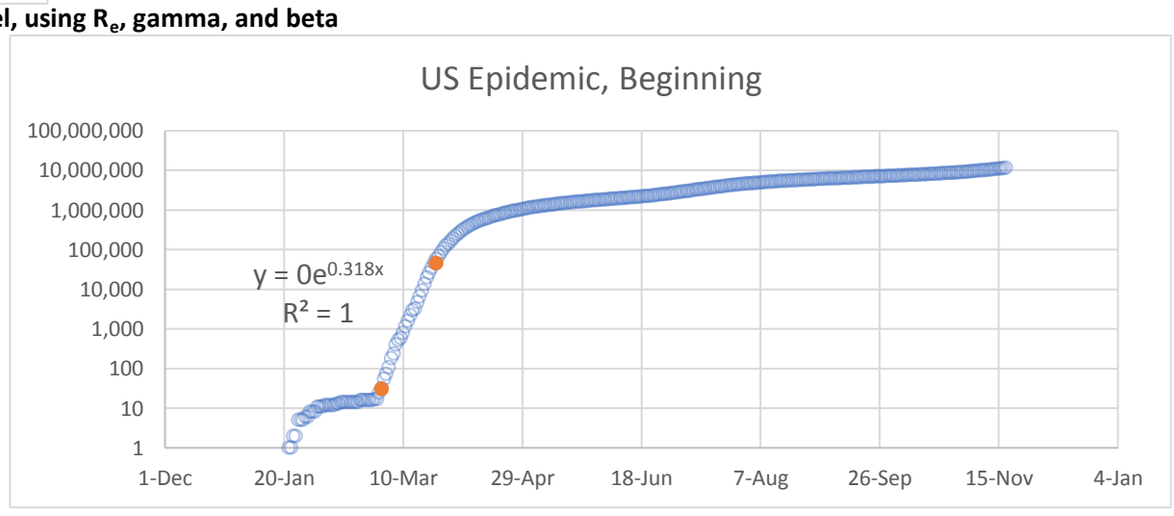
R is *recovered* variable.

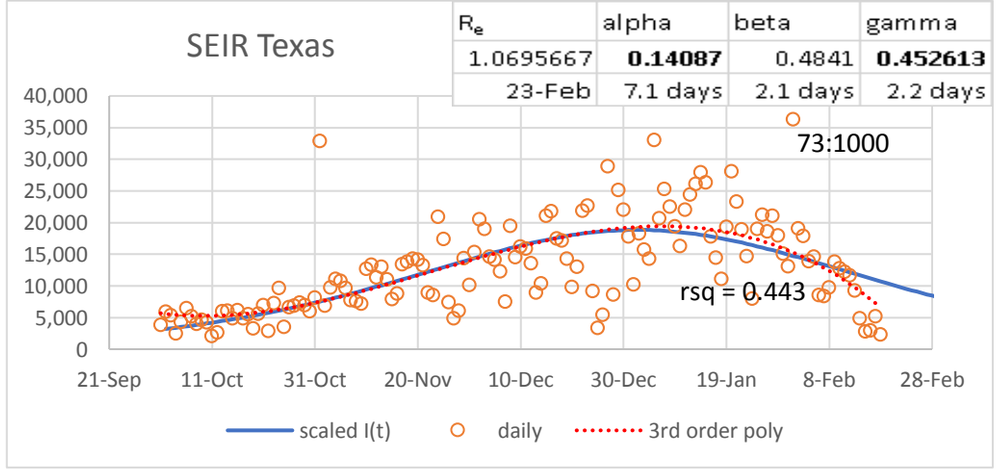


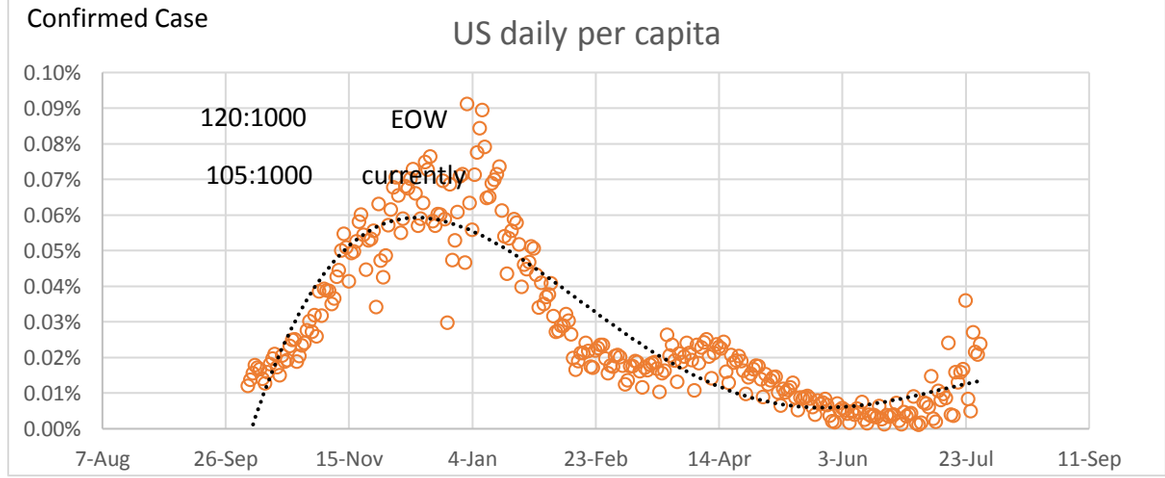


Here are some demonstrations of SIR model, using R_e, gamma, and beta

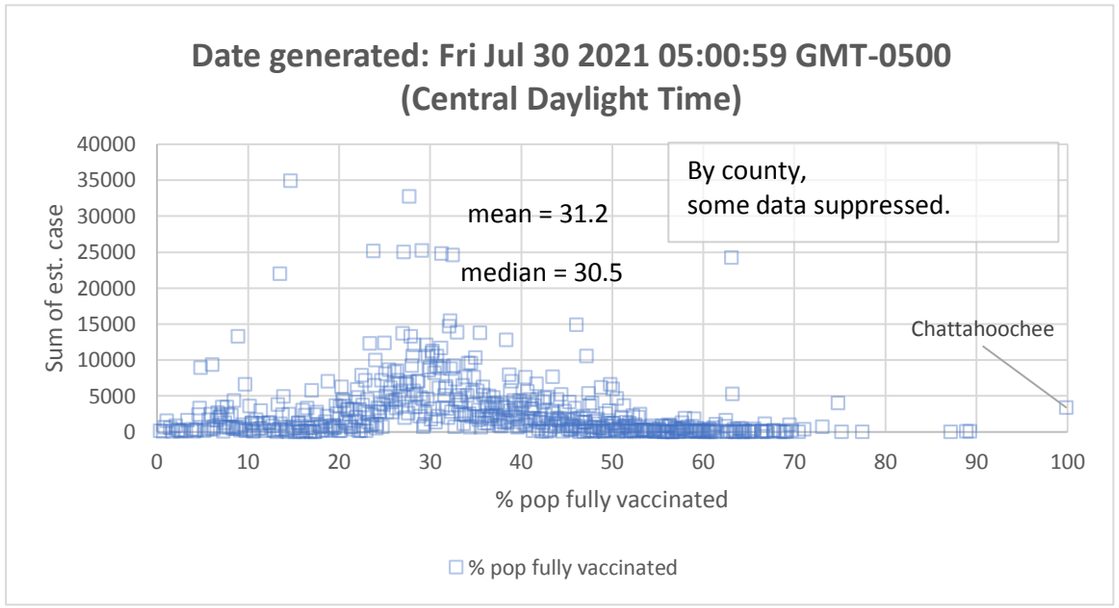




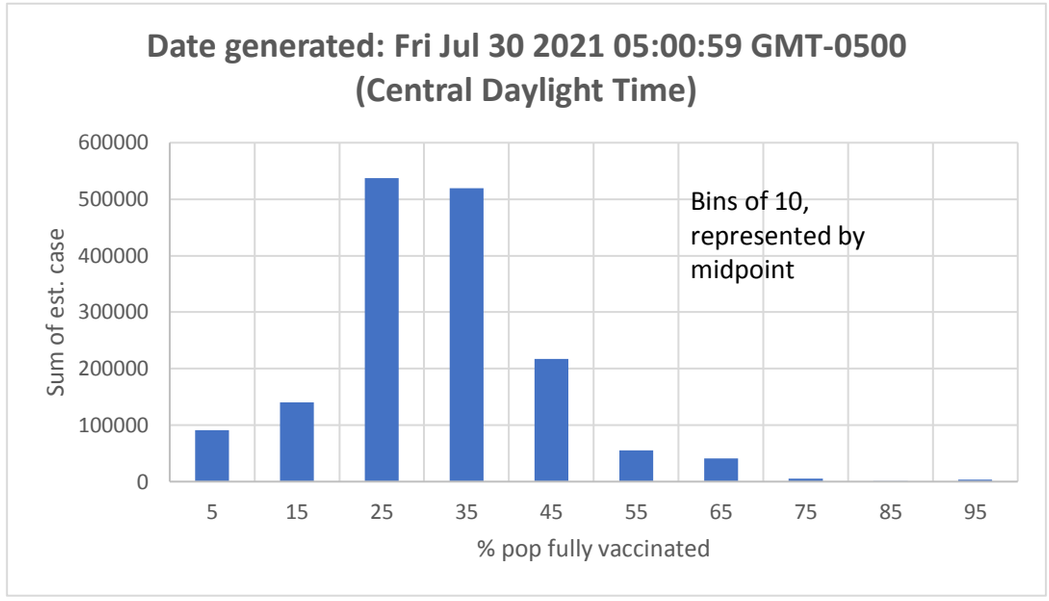




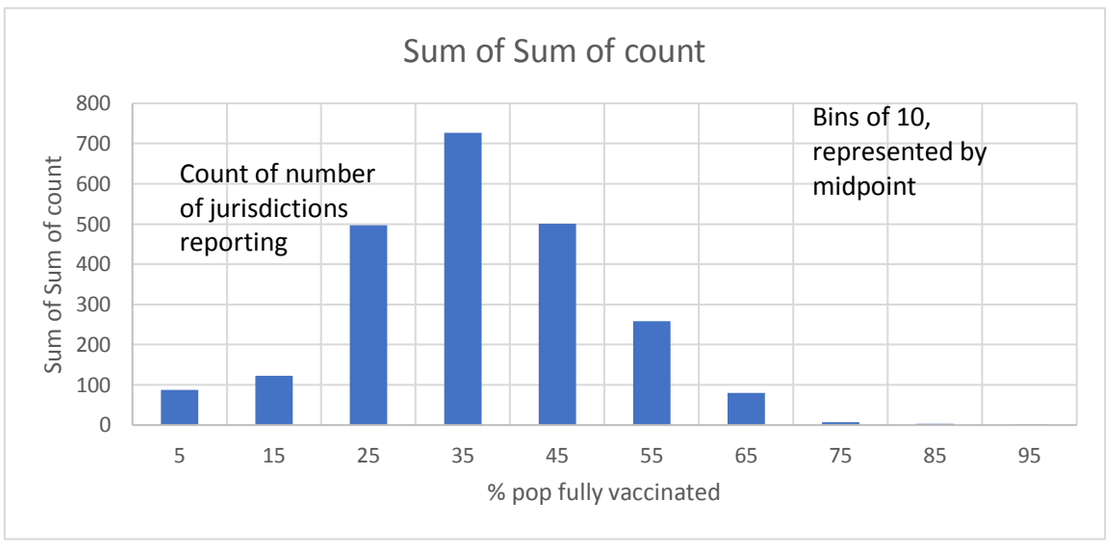
CDC data on week indicated new cases by % fully vaccinated.

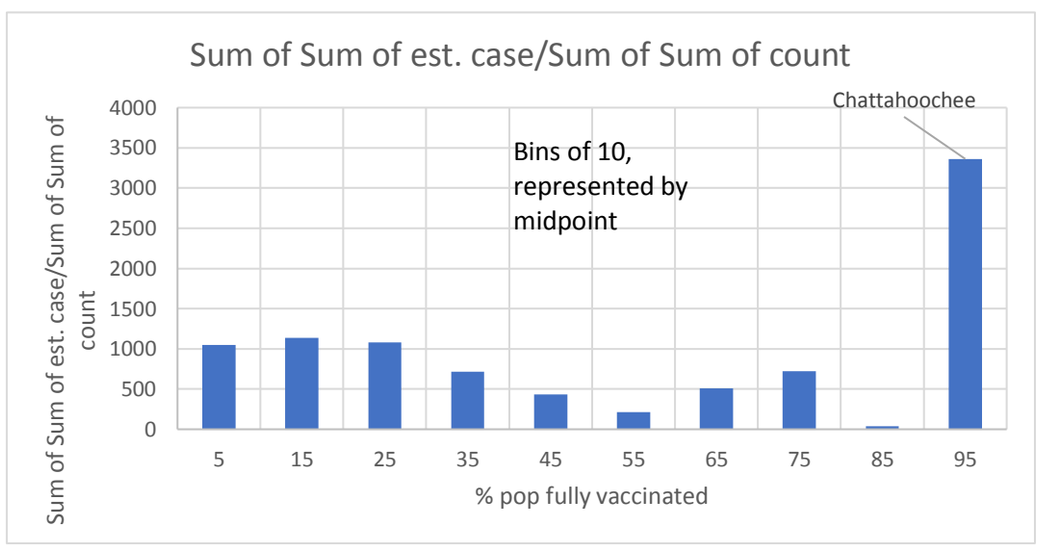


Data within bins:

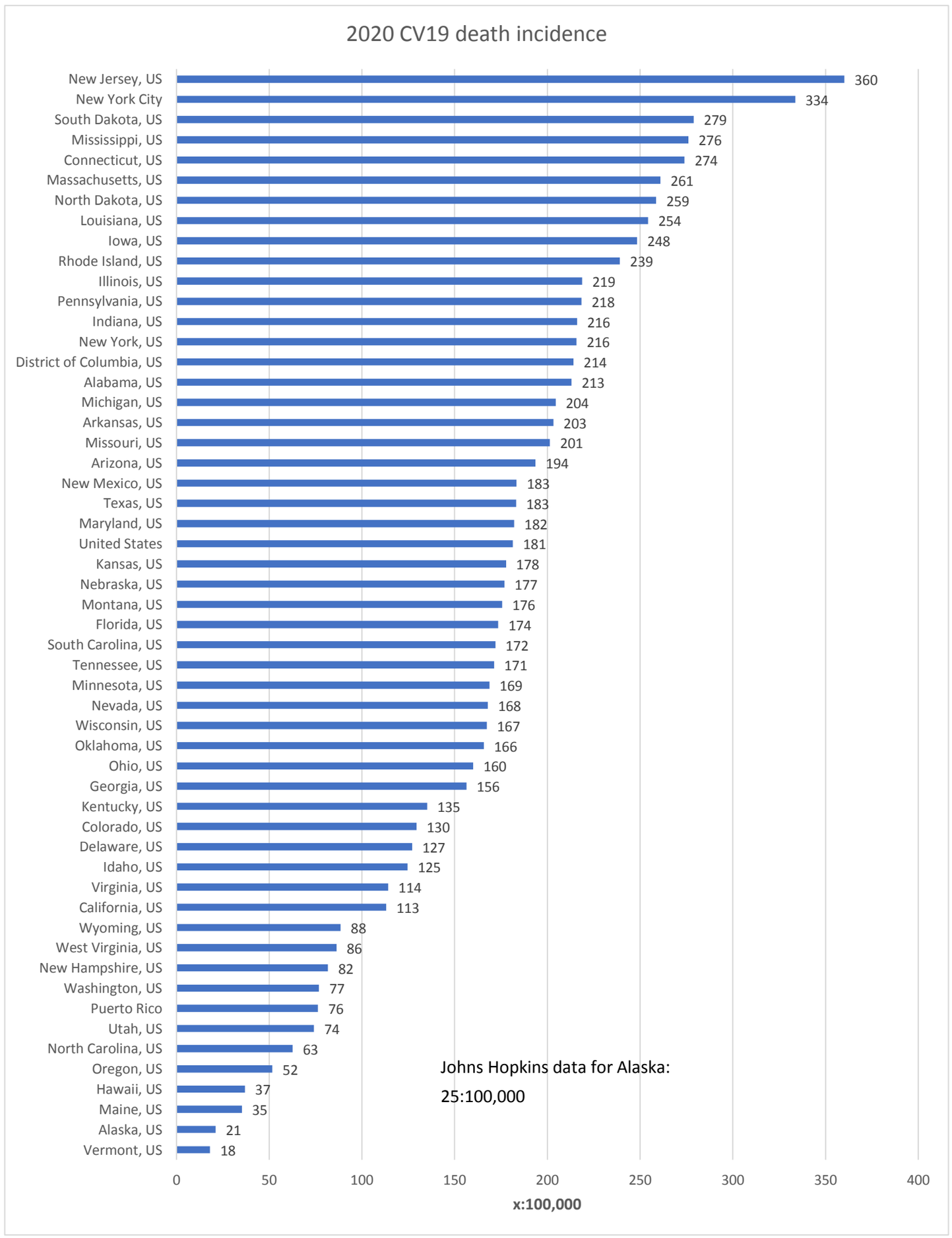


However, count of % pop fully vaccinated sparse at extremes, so adjust for jurisdiction count:





https://covid.cdc.gov/covid-data-tracker/#vaccination-case-rate



https://data.cdc.gov/NCHS/Weekly-Counts-of-Deaths-by-State-and-Select-Causes/muzy-jte6/data