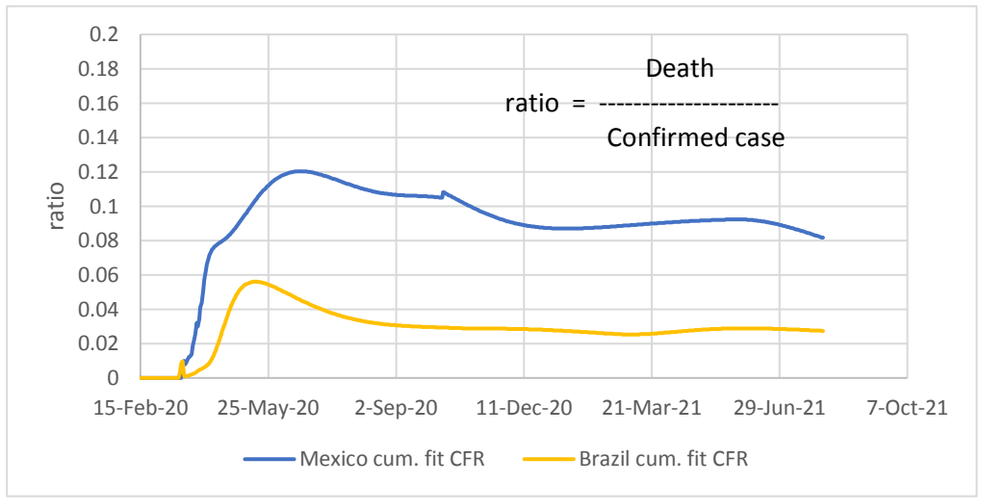
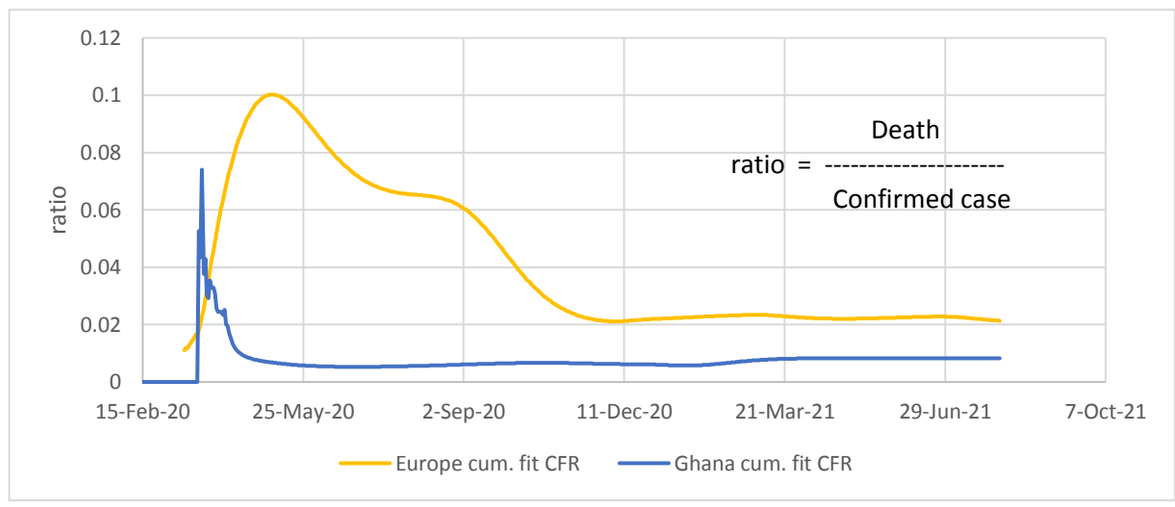
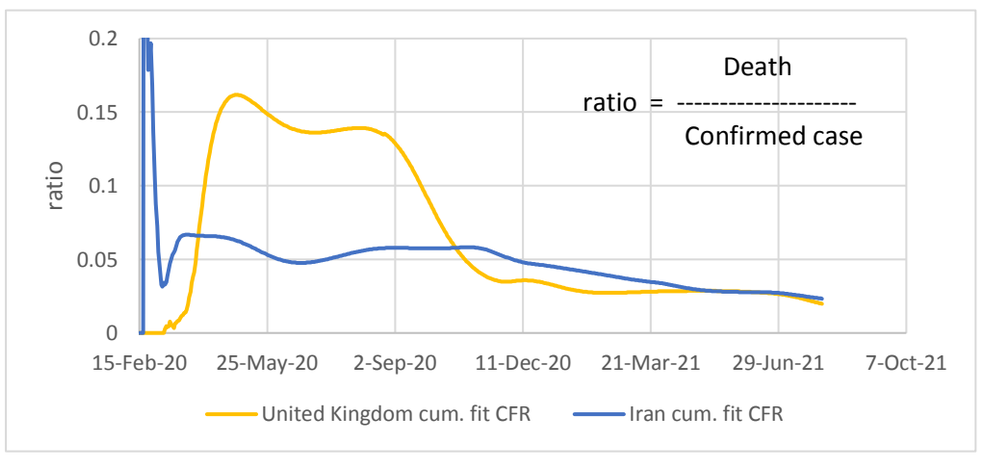
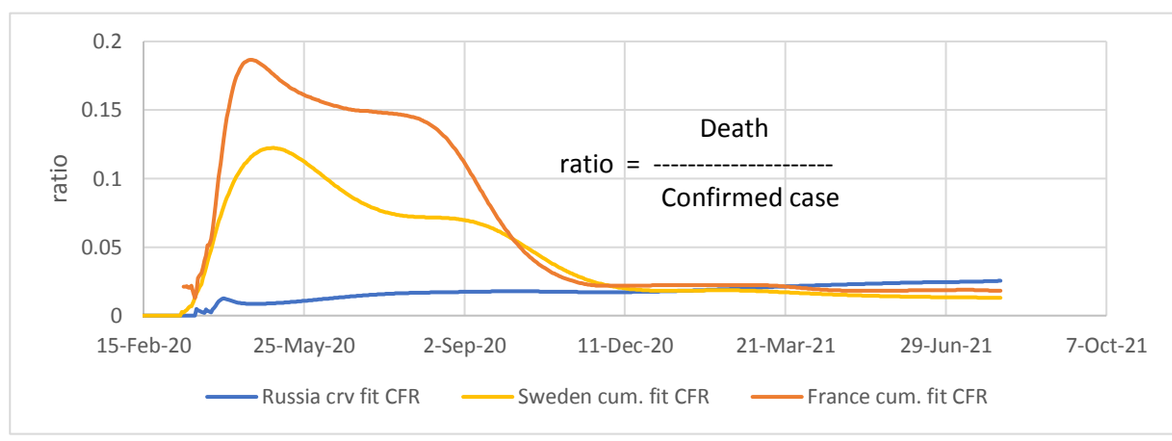
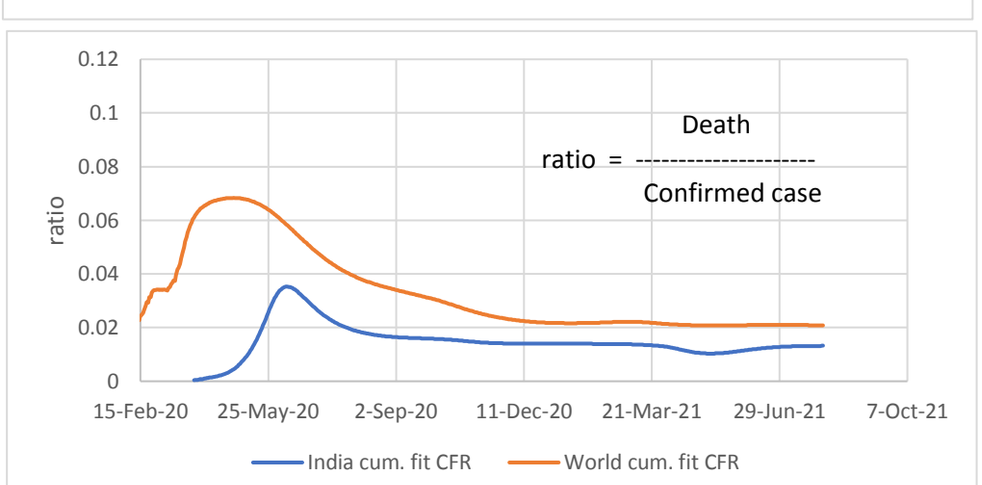
Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)

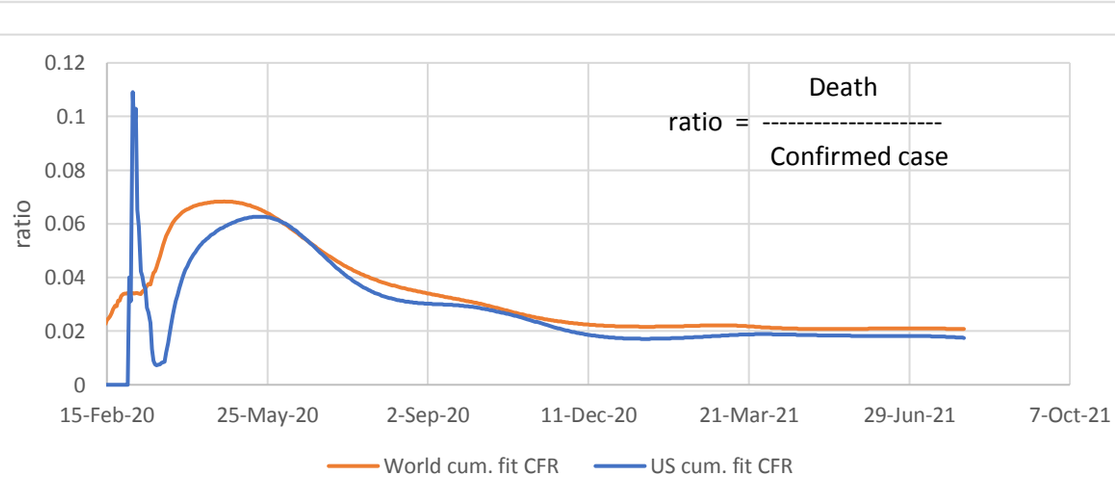




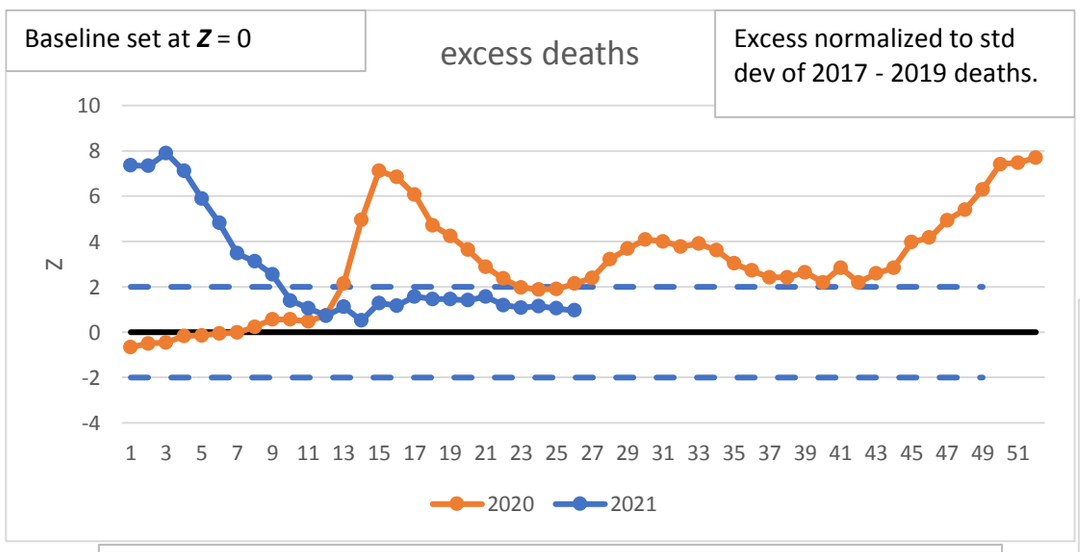






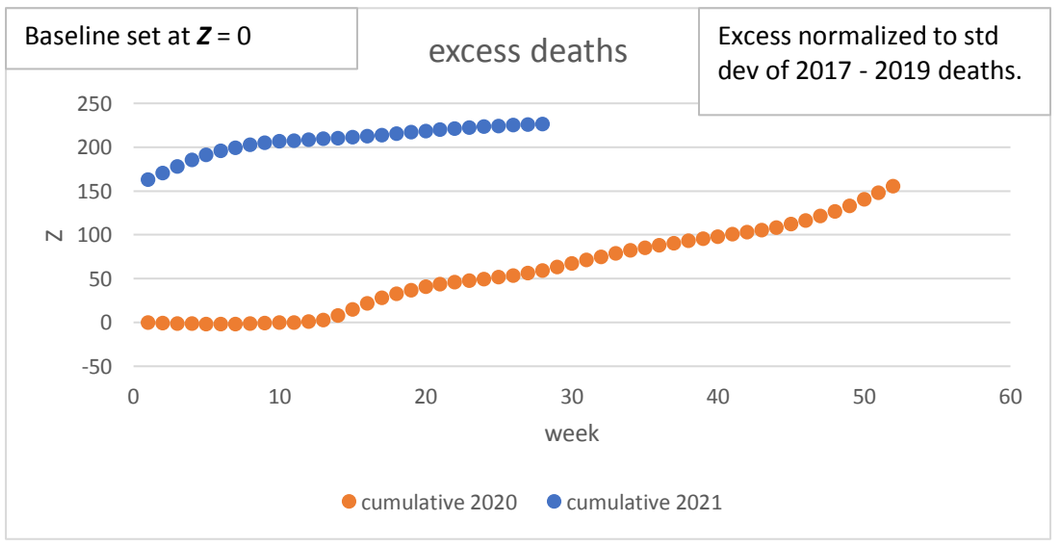


Excess deaths as a Z score:

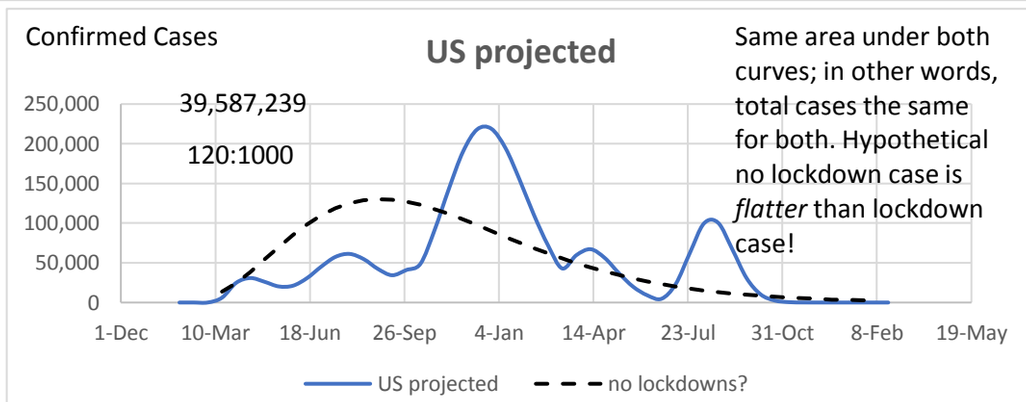


Above based on Z score of two year standard deviation from 2017-2019. What follows is cumulative plot of same.

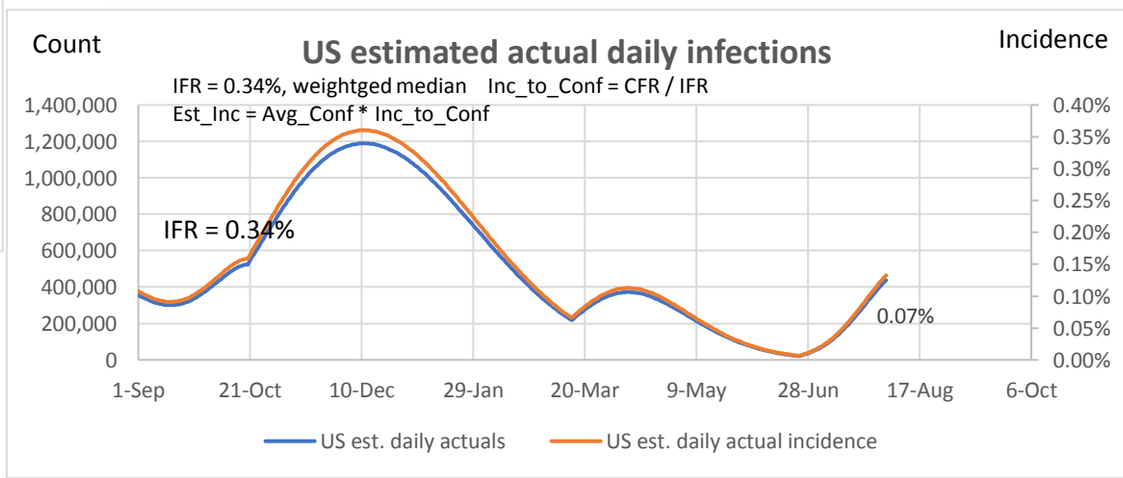
Data in recent weeks are incomplete. Only 60% of death records are submitted to NCHS within 10 days of the date of death, and completeness varies by jurisdiction. Data are not weighted and counts are likely



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!



<u>False Positives Demonstration</u>

Use 0.07% as estimated daily incidence

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

99% accuracy of test

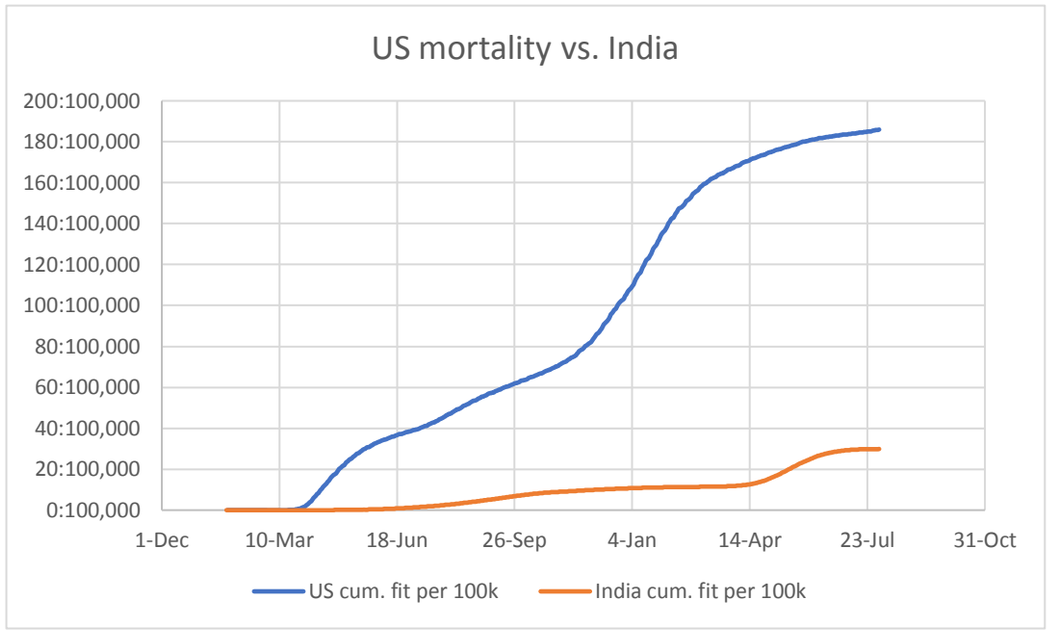
0.07% X 14 = 0.980%

	Positive	Negative	
test pos	0.970%	0.990%	1.96%
test neg	0.010%	98.030%	<u>98.04%</u>
	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%	<u>50.5%</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, 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):

29 weeks	All Cause	All Cause, excl. CV19	CV19
3 yr average before 2020	472:100,000	472:100,000	-
2021	557:100,000	485:100,000	-
Diff.	86:100,000	13:100,000	73:100,000

3 yr average
859:100,000

15% of All-Cause excess deaths are non-CV19

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

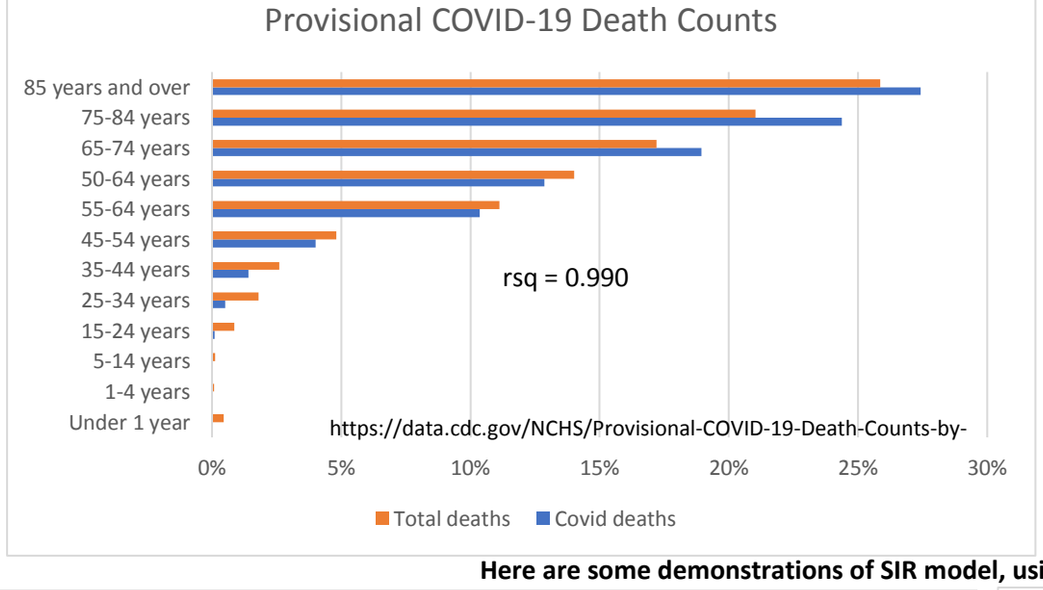
K = 0.318 R_o: R :

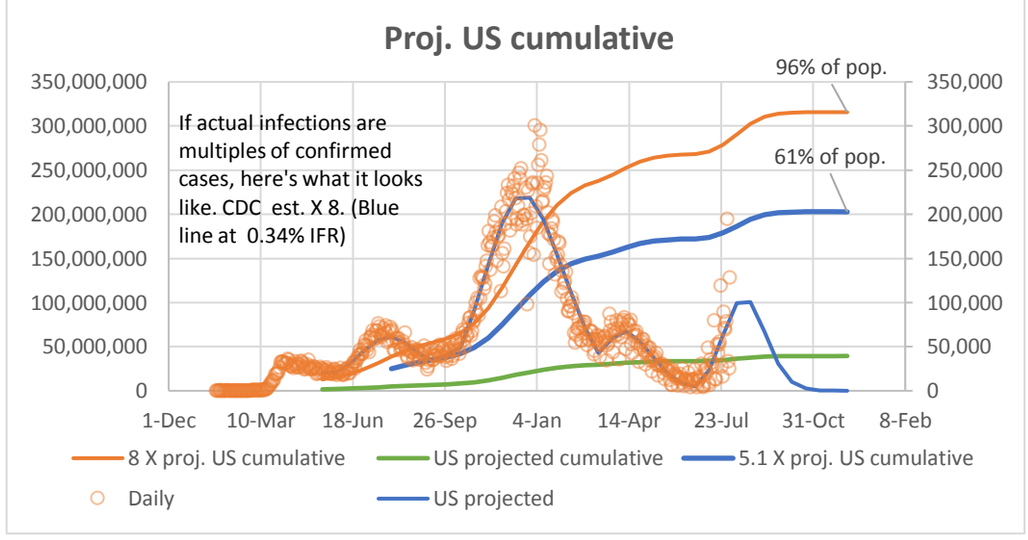
gamma = 0.171 R_o = exp(K/gamma) = 6.42 84%

gamma = 0.286 R > 1- 1/R_o = 3.04 67%

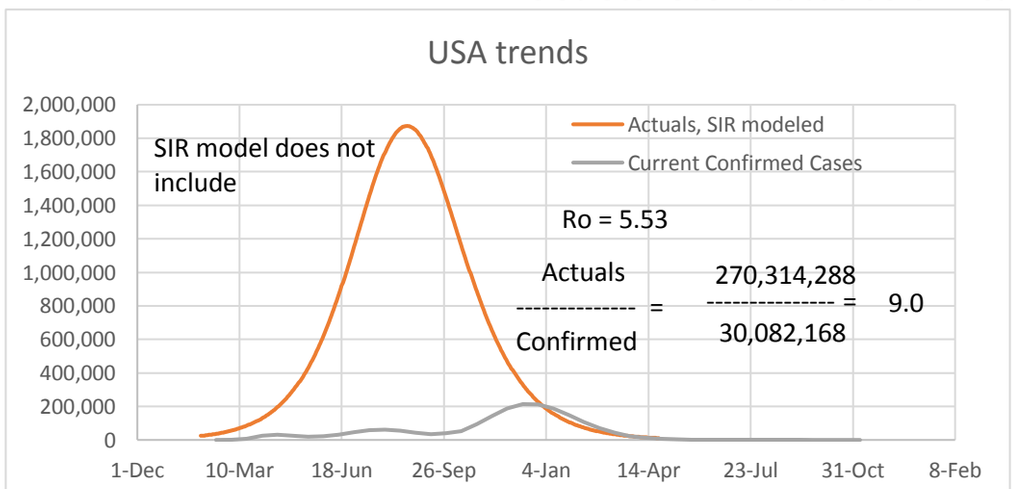
<=Herd immunity

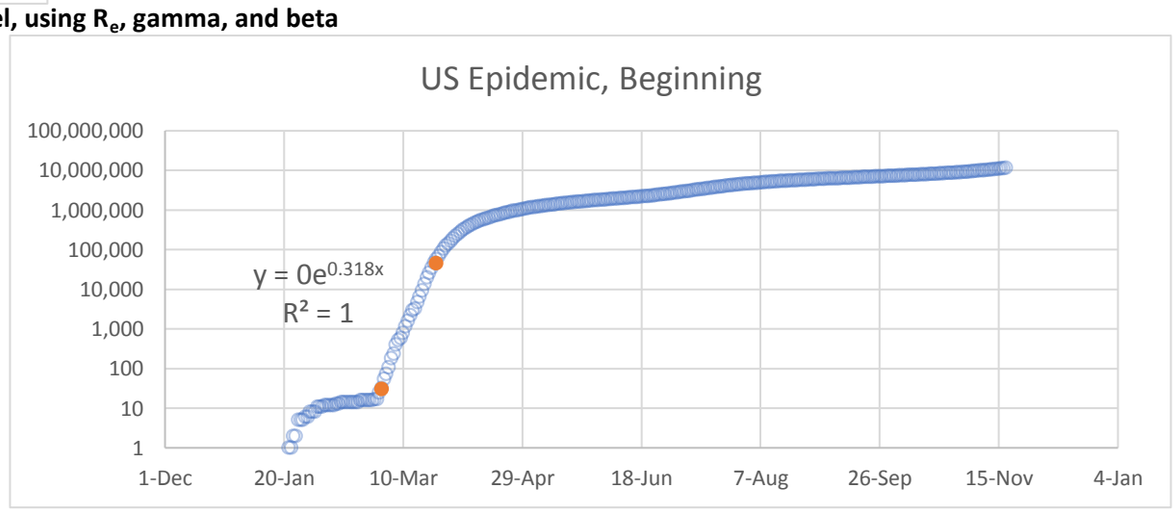
R is *recovered* variable.

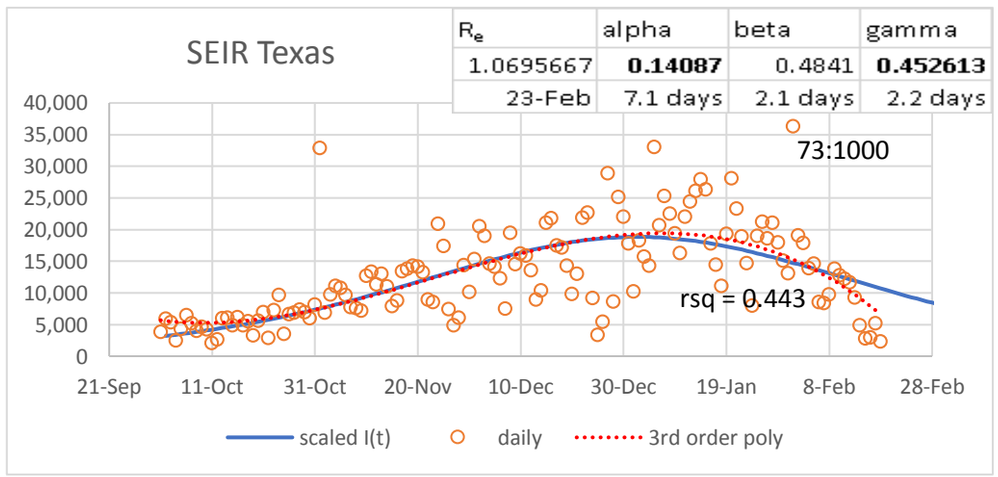


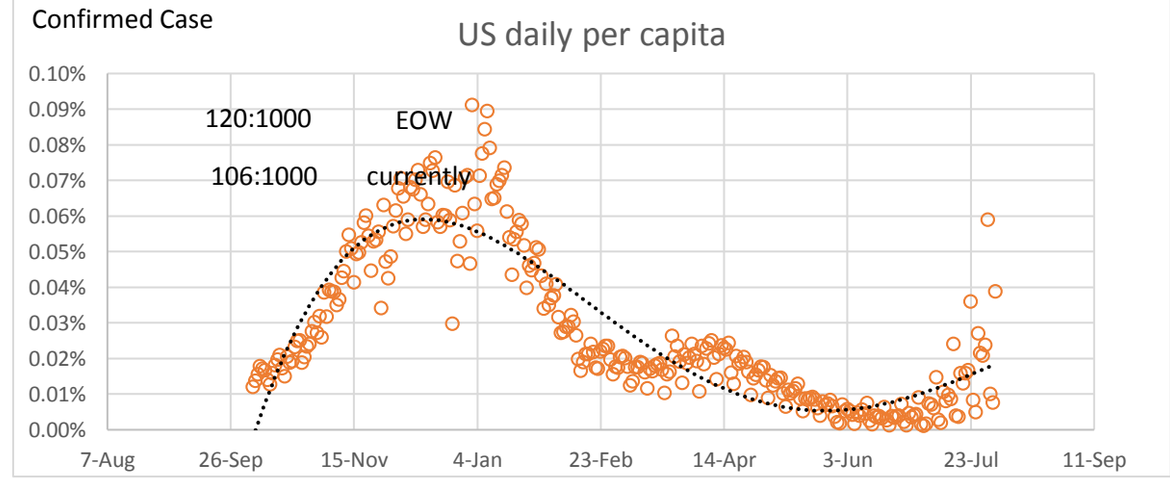


Here are some demonstrations of SIR model, using R_e, gamma, and beta

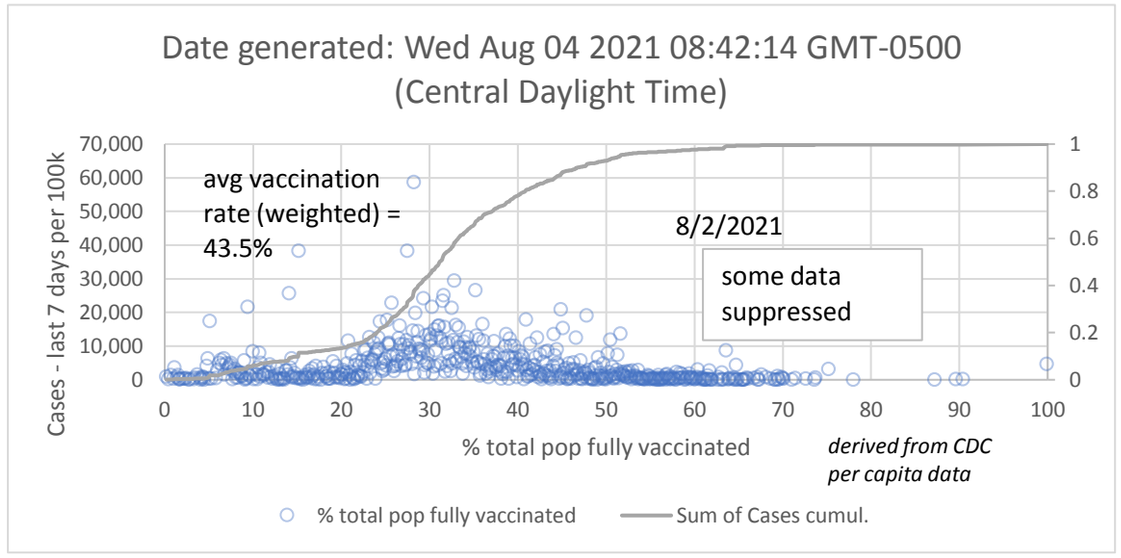




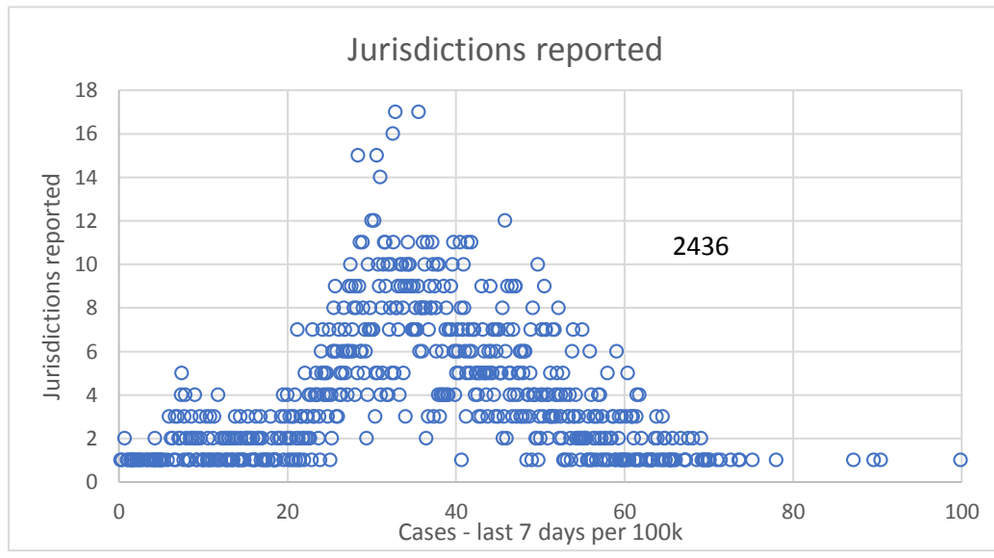




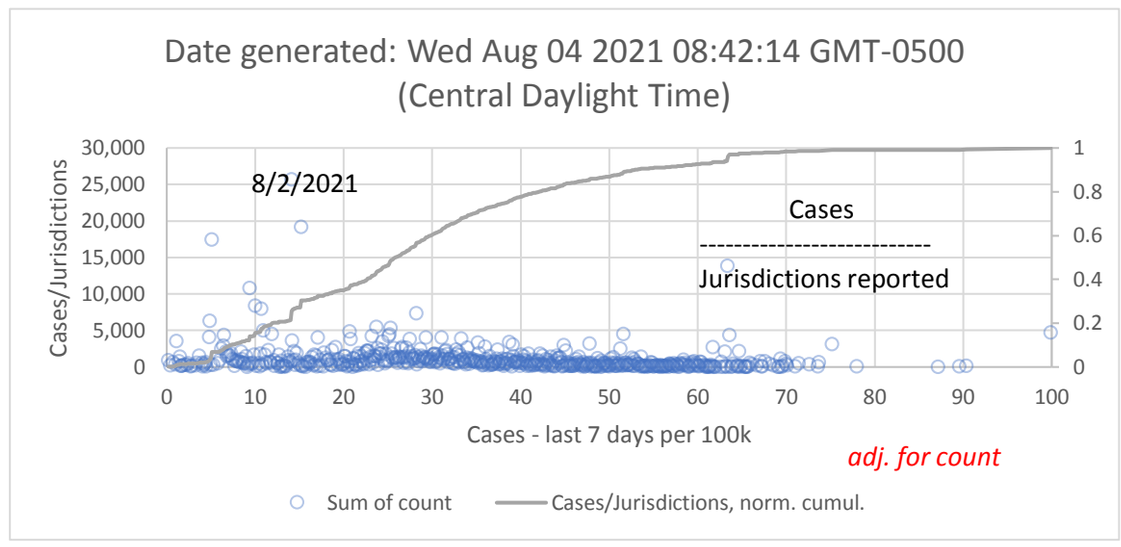
CDC data on week indicated new cases by % fully vaccinated.
(data derived from per capita, multiplied by jurisdiction population)

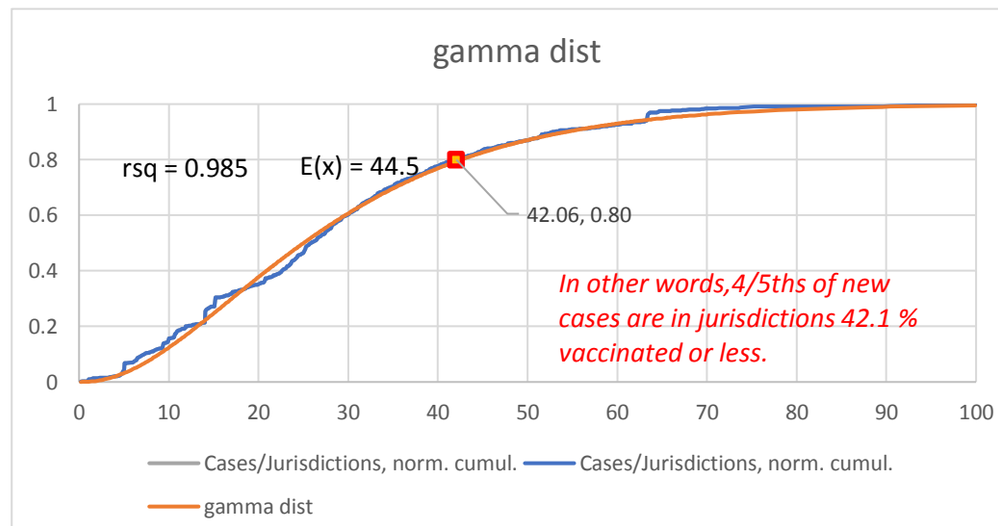


However, Jurisdictions not uniformly distributed:

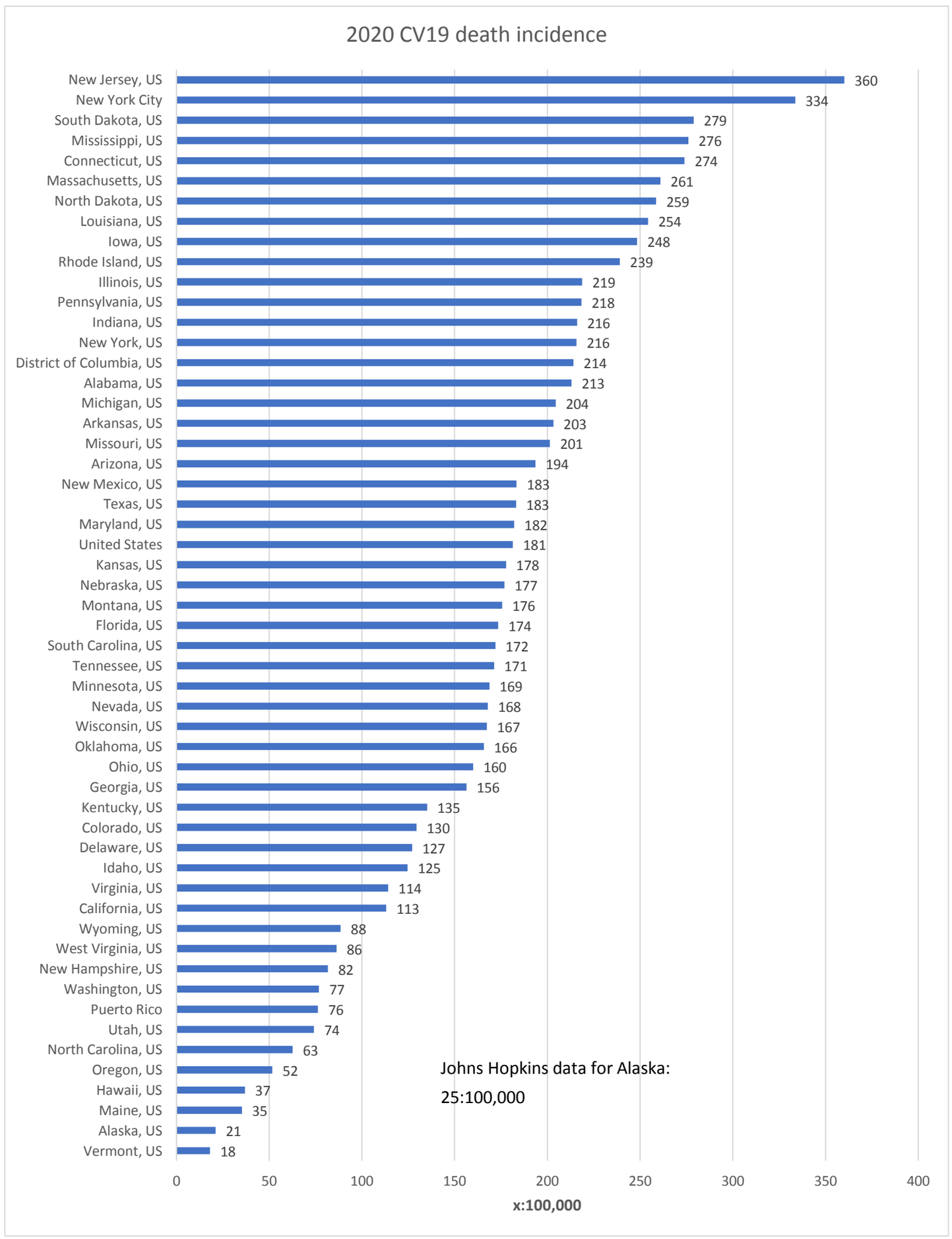


So, adjust raw data by number of jurisdictions in each count:





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