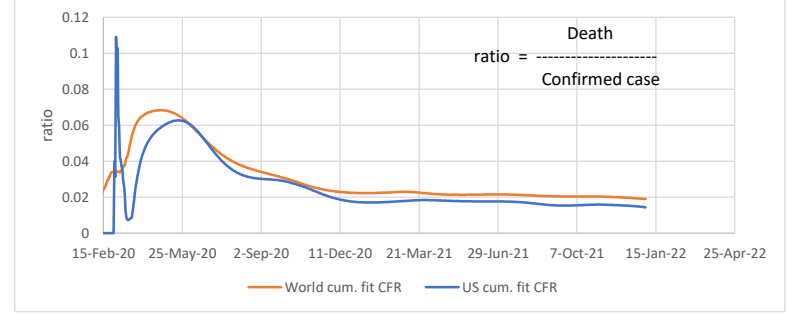
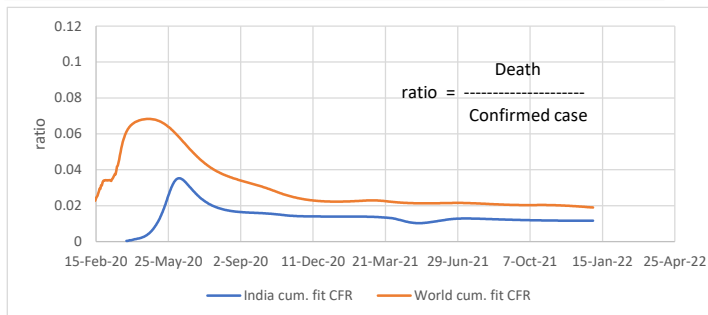
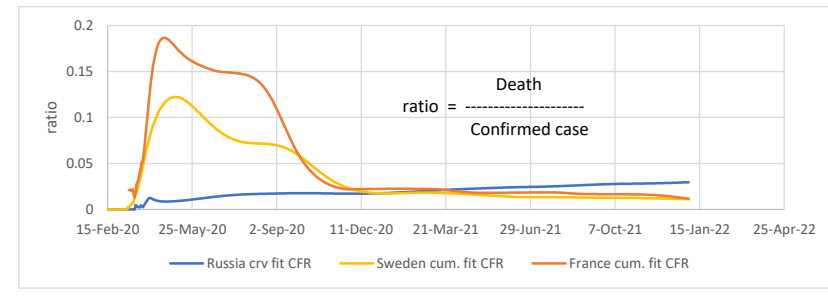
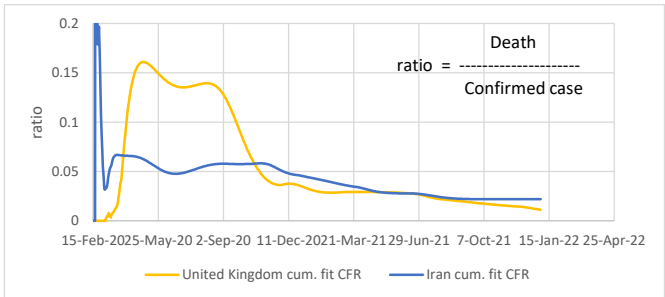
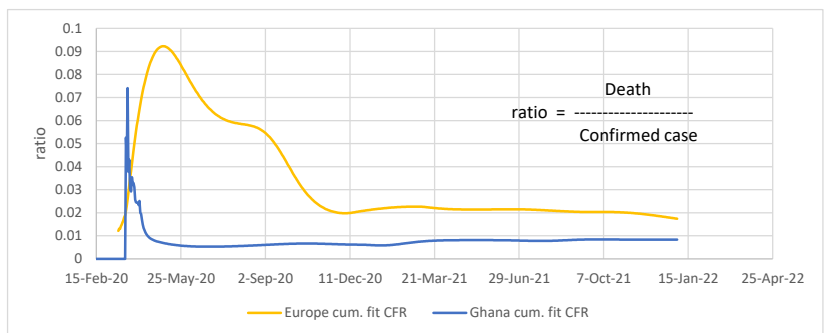
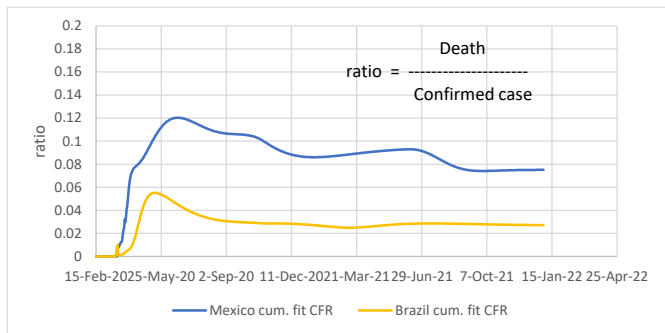
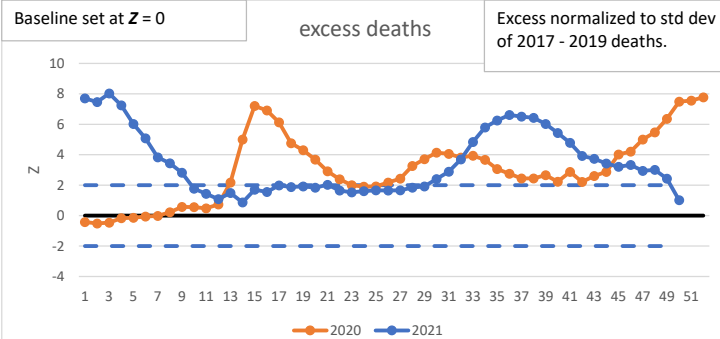


Experimental page : ratios of curve fit deaths to curve fit confirmed cases (CFR)

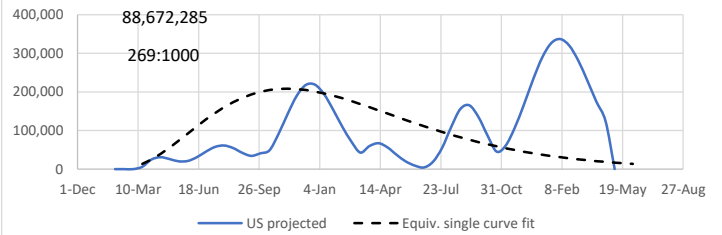


Excess deaths as a Z score:



Confirmed Cases

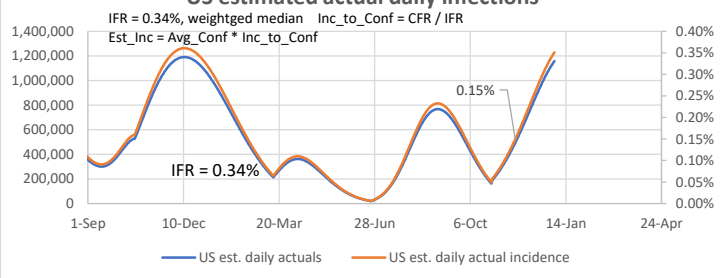
US projected



Count

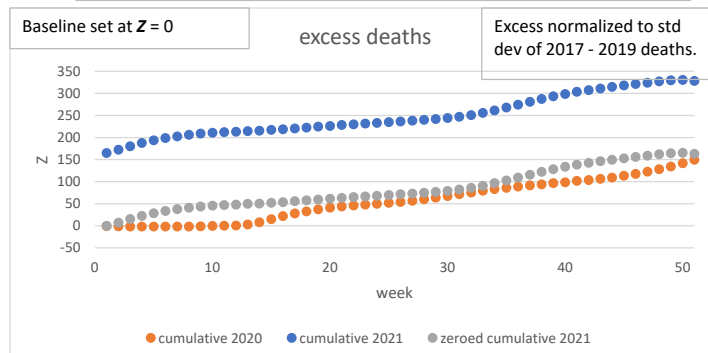
US estimated actual daily infections

Incidence



Above based on Z score of two 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



False Positives Demonstration

Use 0.15% as estimated daily incidence

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

95% accuracy of test

	Positive	Negative
test pos	1.995%	4.895%
test neg	0.105%	93.005%
	2.100%	97.900%

False pos. is more than half of total positives.

TRUE +	1.995%/6.89%	29.0%
FALSE +	4.895%/6.89%	71.0%
Total		100.00%

0.15% X 14 = 2.100%

Sensitivity

Probability of detection where condition exists

True + / (True + & False -)
95%

Specificity

Probability of not detecting where condition doesn't exist

True - / (True - & False +)
95%

Example only; sensitivity and specificity not necessarily equal.

USA Excess Deaths, 2020 (from CDC data):

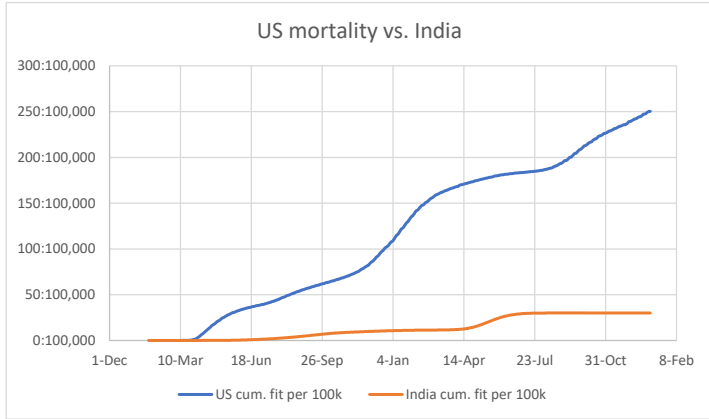
Annualized on 52 weeks			
	All Cause	All Cause, excl. CV19	CV19
3 yr average before 2020	859:100,000	859:100,000	-
2020	1016:100,000	905:100,000	-
Diff.	157:100,000	46:100,000	111:100,000

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/xkxf-xrst/data	

USA Excess Deaths to date (2021, from CDC data):

51 weeks	All Cause	All Cause, excl. CV19	CV19
3 yr average before 2020	842:100,000	842:100,000	-
2021	1012:100,000	875:100,000	-
Diff.	170:100,000	33:100,000	137:100,000

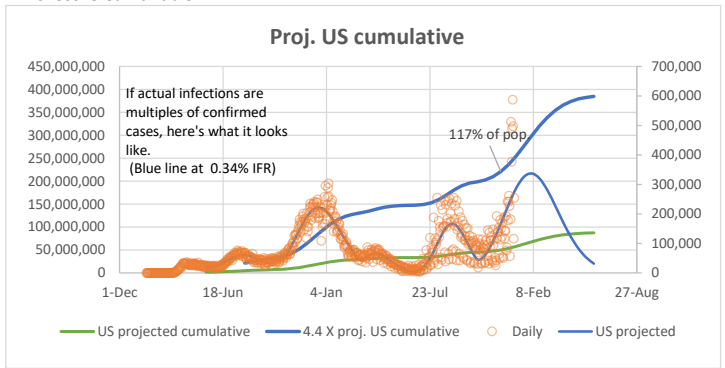
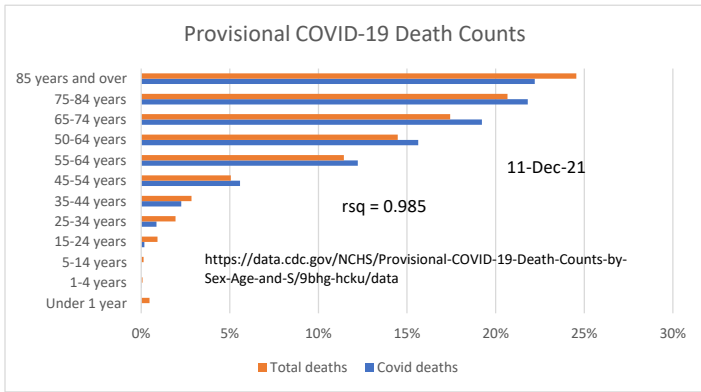
3 yr average	859:100,000
19% of All-Cause excess deaths are non-CV19	
https://data.cdc.gov/NCHS/Excess-Deaths-Associated-with-COVID-19/xkxf-xrst/data	



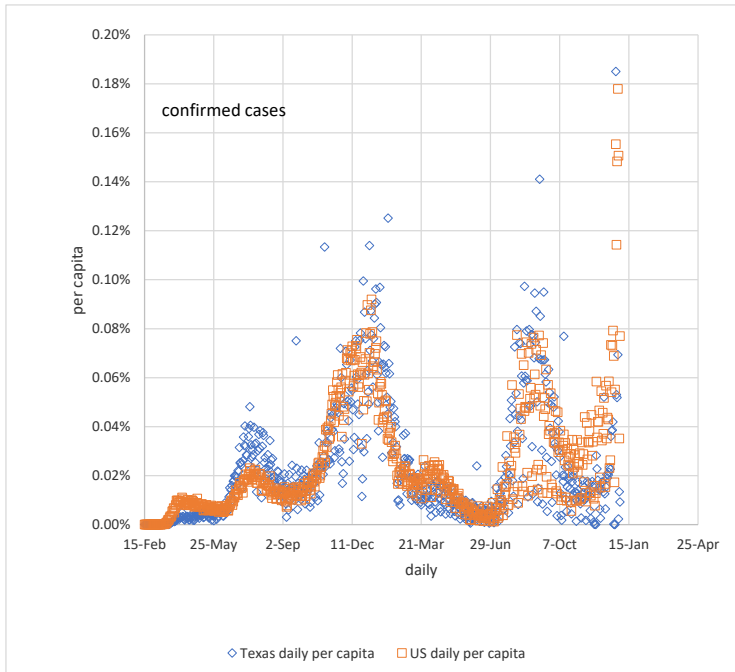
$$K = 0.318 \quad R_o = \exp(K/\gamma) = 6.42 \quad R = 84\% \quad \leq \text{Herd immunity}$$

$$\gamma = 0.171 \quad R > 1 - 1/R_o = 3.04 \quad 67\%$$

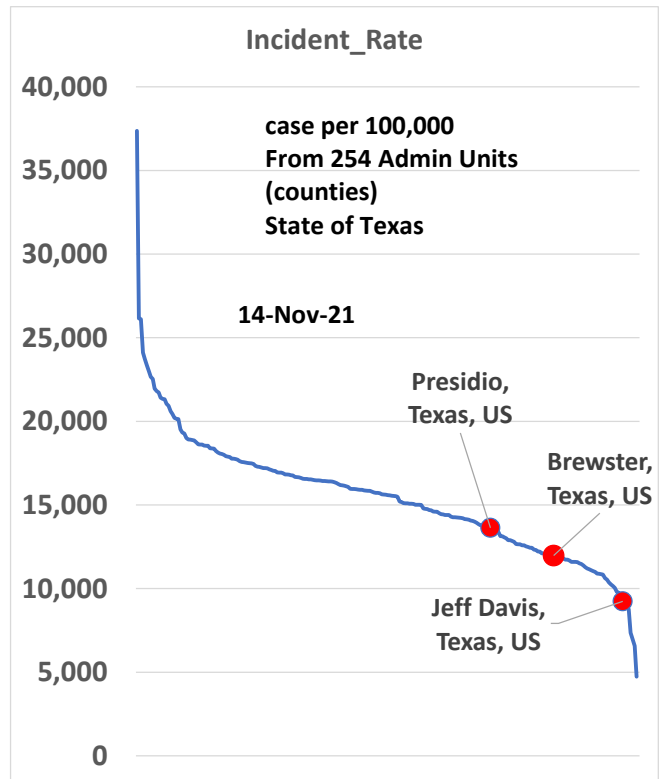
R is recovered variable.



US vs. Texas



Tri-Counties in Texas:





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