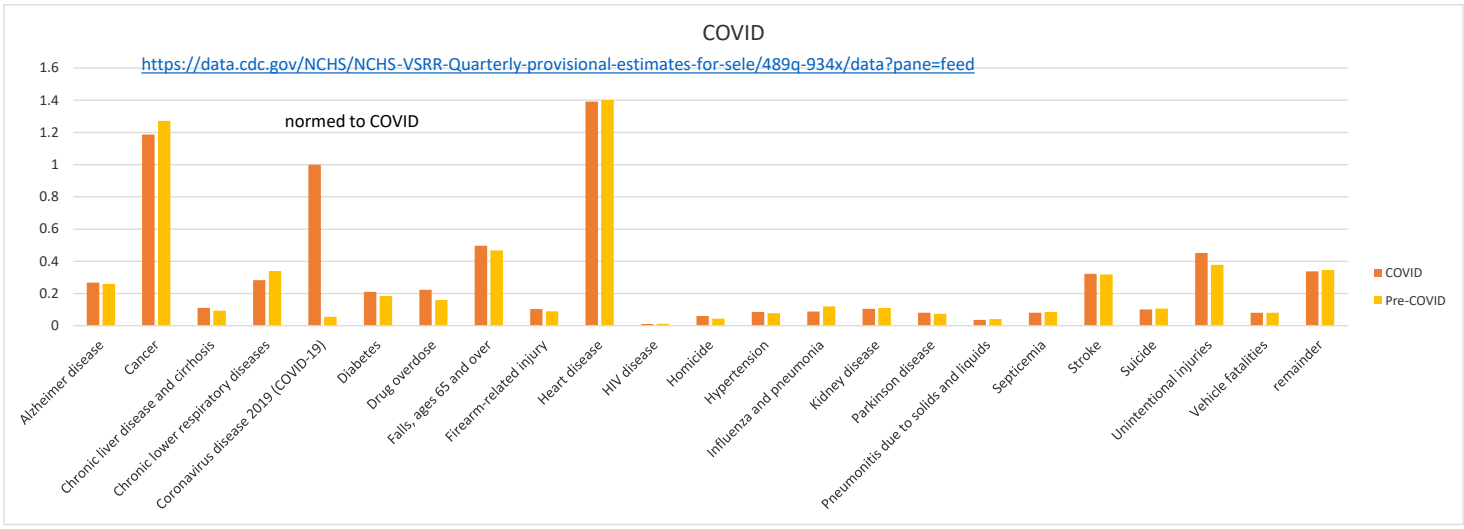
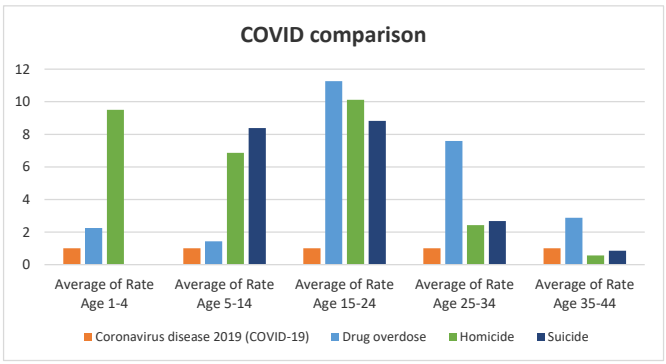
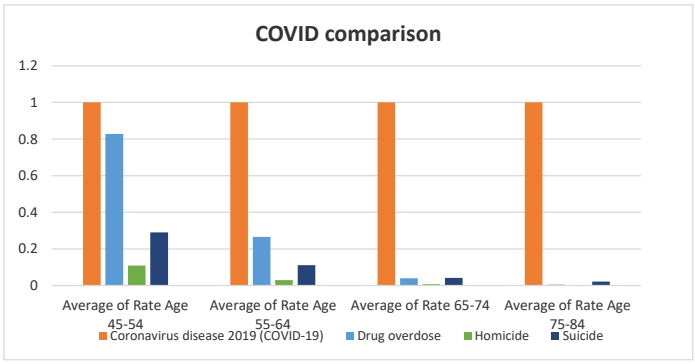
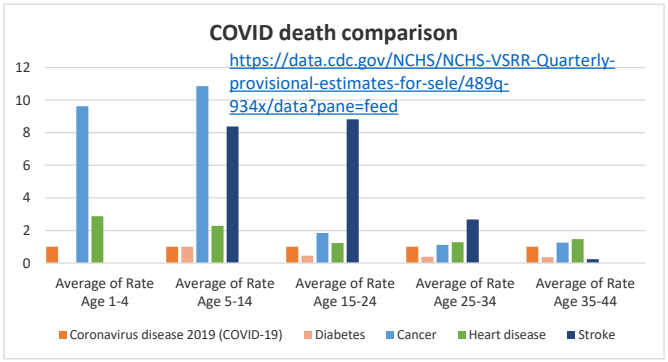
Common causes of death, normalized to COVID. Pre-Covid: 1Q2017 thru 1Q2020, Post-Covid 2Q2020 thru 1Q2021

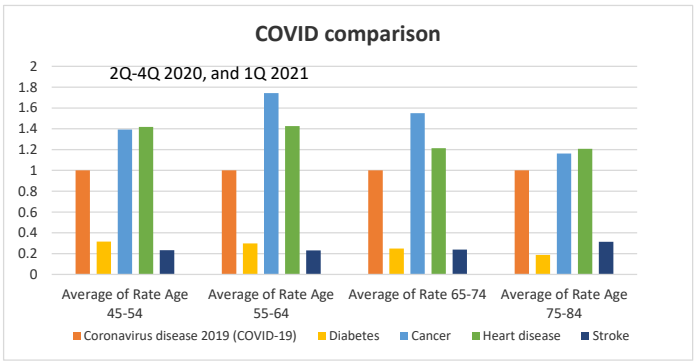


Relative effect of COVID on various age groups, and compared to cause of death. These are all relative to COVID, which is 1.0 on each of four charts

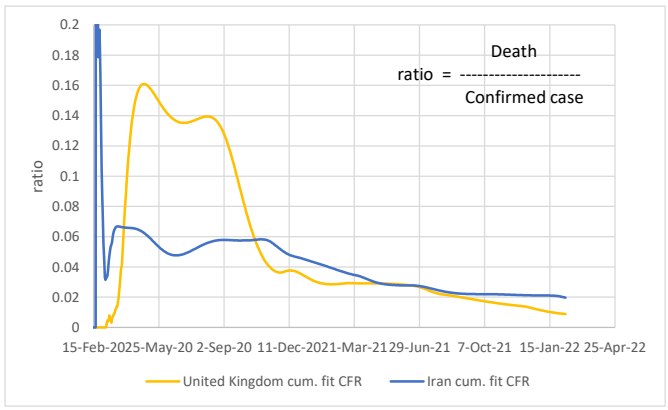


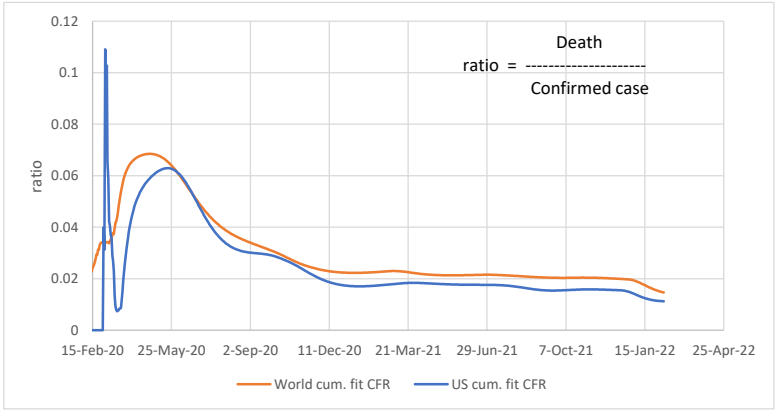




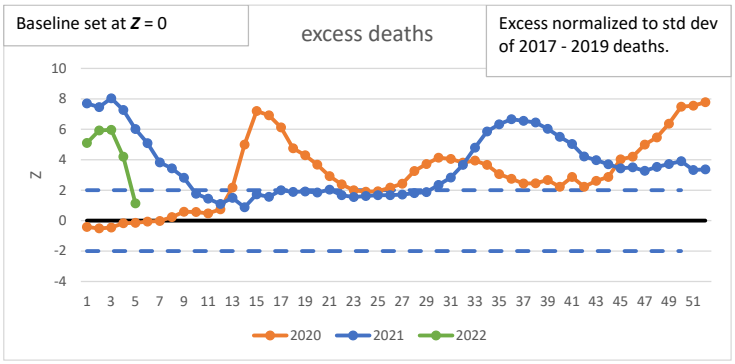


Ratios of curve fit deaths to curve fit confirmed cases (CFR)



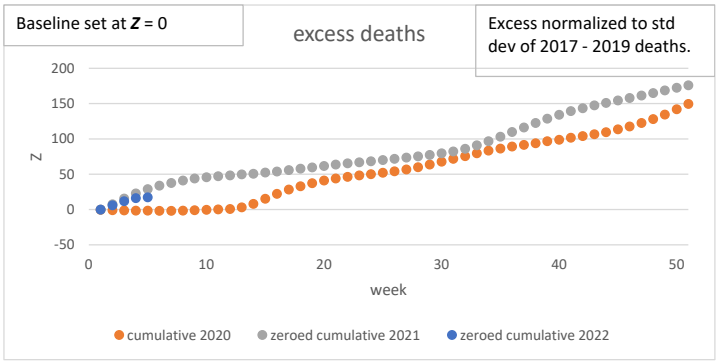


Excess deaths as a Z score:

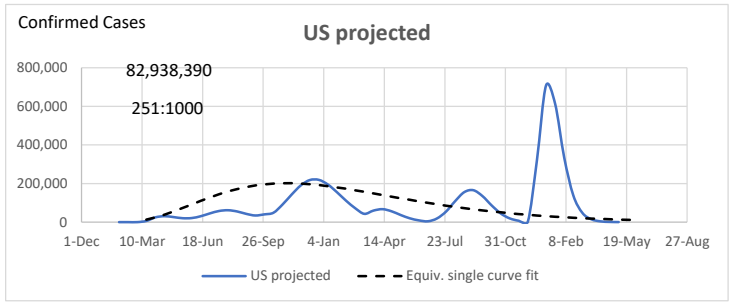


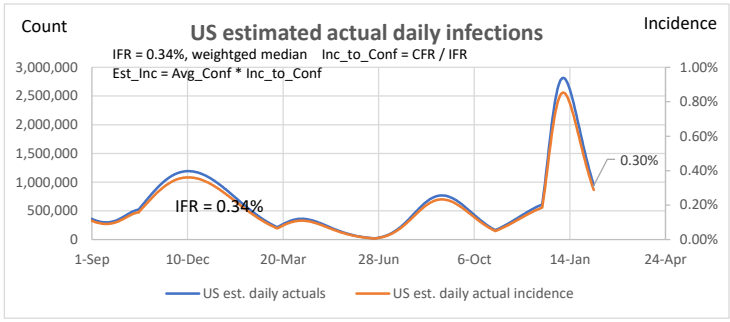
Above based on Z score of two standard deviation from 2017-2019. What follows is cumulative plot of same.

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



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





False Positives Demonstration

Use 0.30% as estimated daily incidence

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

0.30% X 14 = 4.200%

95% accuracy of test

	Positive	Negative	
test pos	3.990%	4.790%	8.78%
test neg	0.210%	91.010%	91.22%
	4.200%	95.800%	100.00%

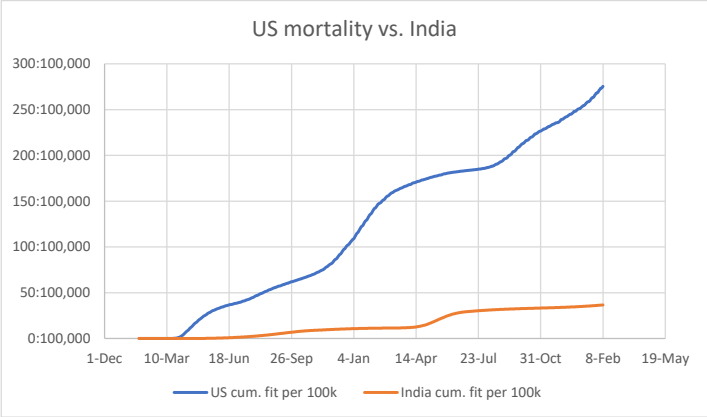
False pos. is more than half of total positives.

TRUE +	3.99%/8.78%	45.4%
FALSE +	4.79%/8.78%	54.6%
Total	----------	100.00%

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 specifity 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/xkkf-xrst/data

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

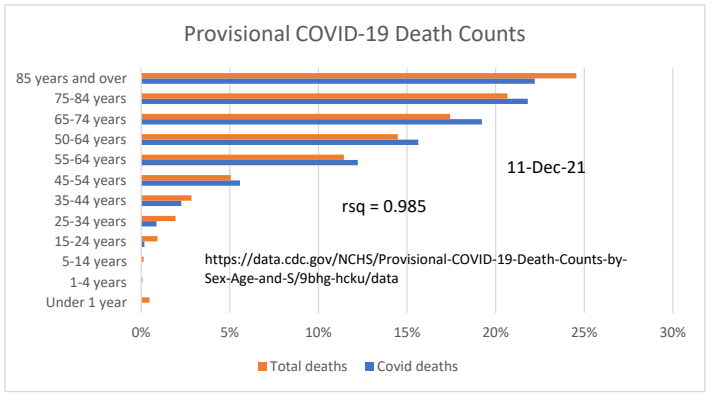
52 weeks	All Cause	All Cause, excl. CV19	CV19
3 yr average before 2020	859:100,000	859:100,000	-
2021	1046:100,000	904:100,000	-
Diff.	187:100,000	45:100,000	142:100,000

3 yr average		Linear Year Projection
859:100,000	24% of All-Cause excess deaths not CV19	142:100,000

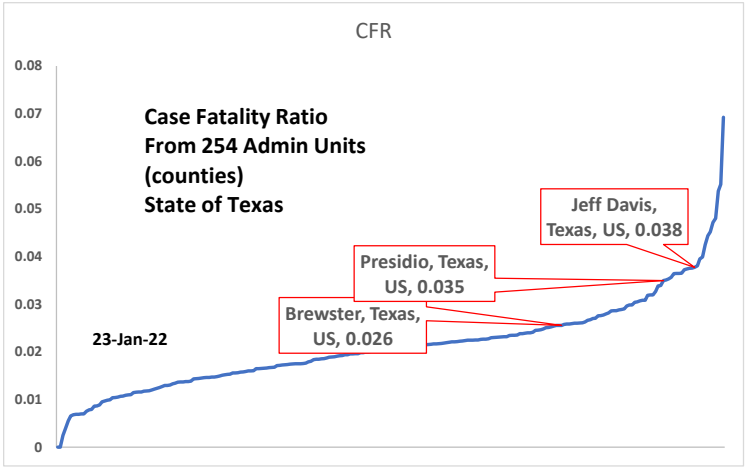
USA Excess Deaths to date (2022, from CDC data):

5 weeks	All Cause	All Cause, excl. CV19	CV19
3 yr average before 2020	92:100,000	92:100,000	-
2022	105:100,000	83:100,000	-
Diff.	13:100,000	-9:100,000	22:100,000

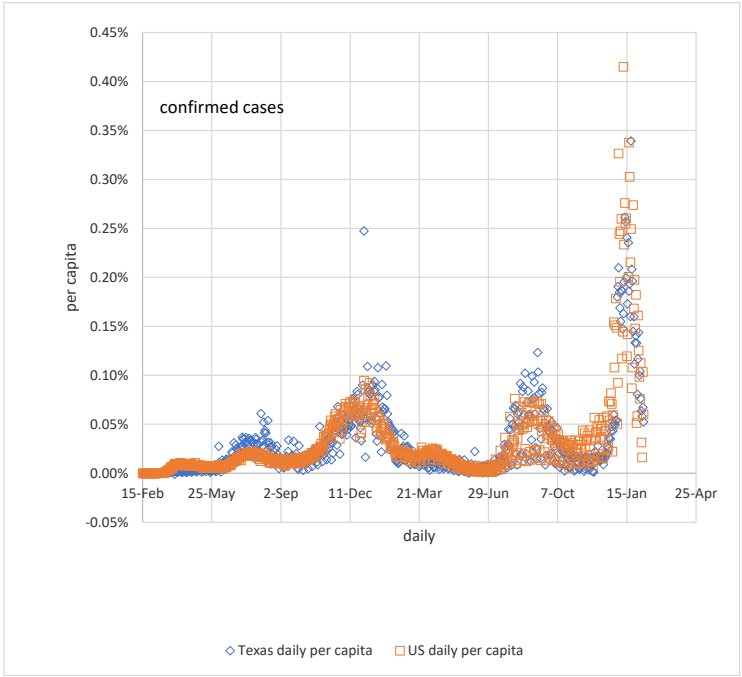
3 yr average		Linear Year Projection
859:100,000	-72% of All-Cause excess deaths not CV19	281:100,000

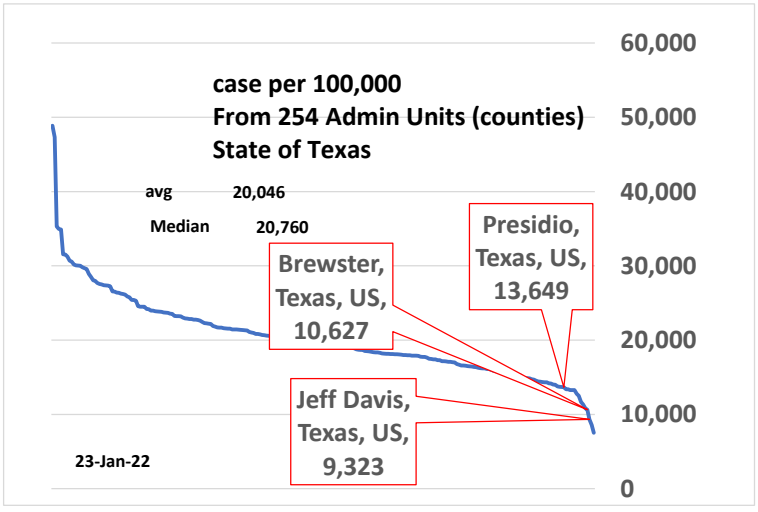


Tri-Counties in Texas:

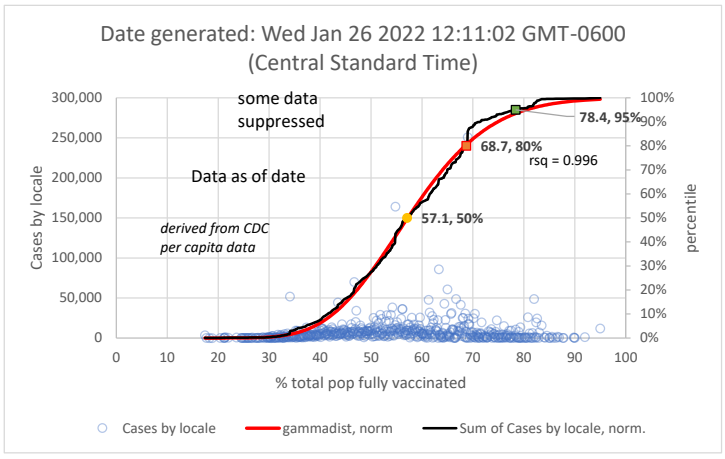


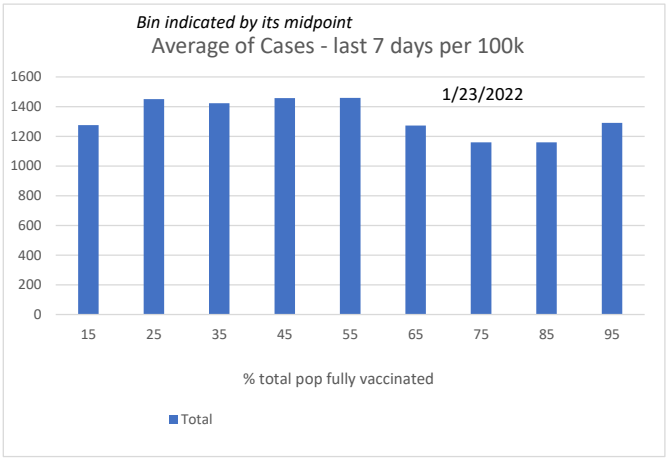
US vs. Texas

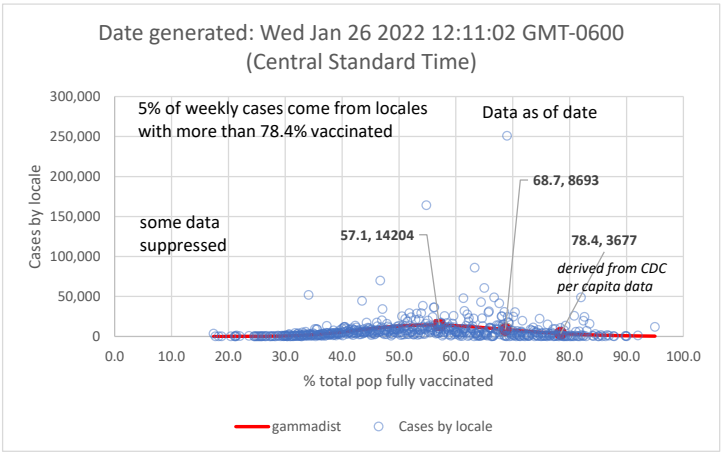


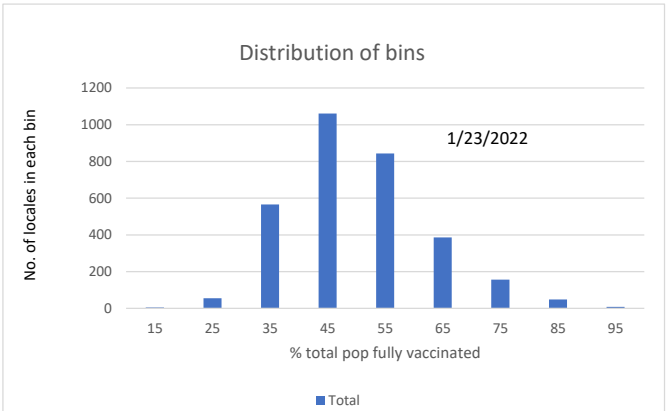


Vaccination, % total pop vaccinated, and cases per 100k, USA









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