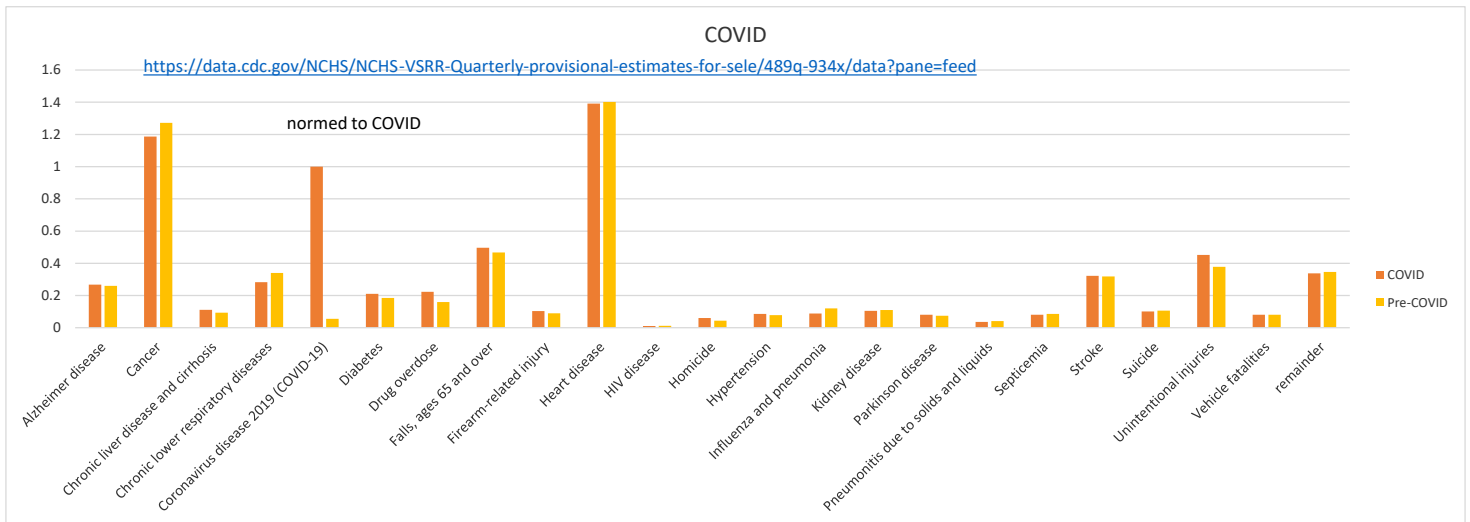
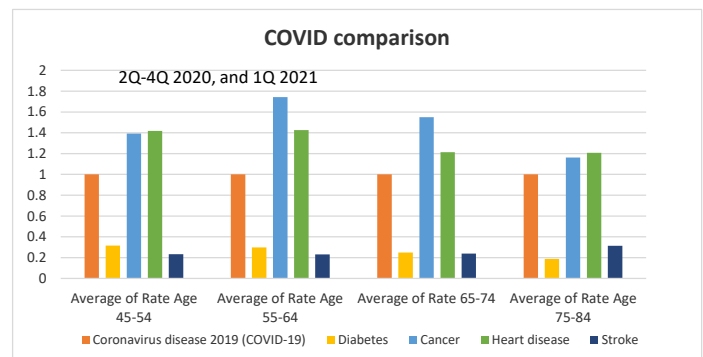
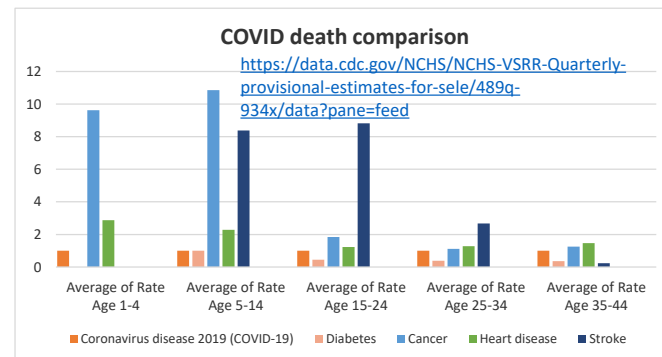
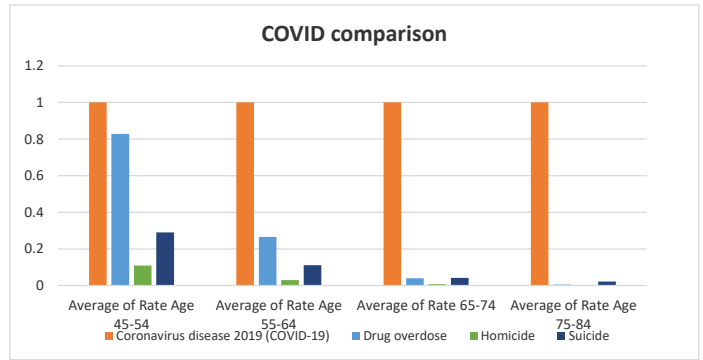
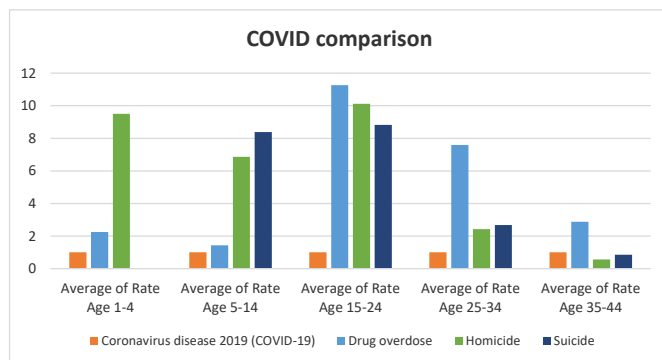


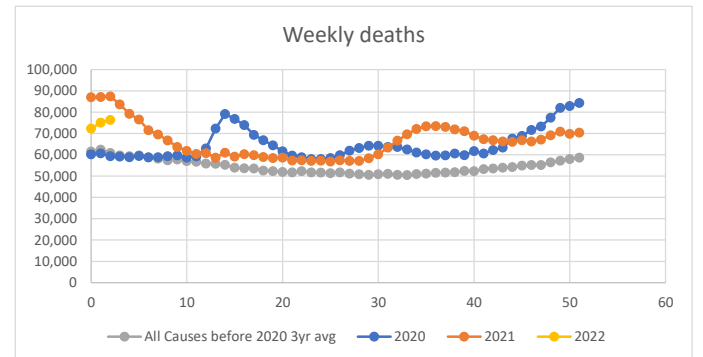
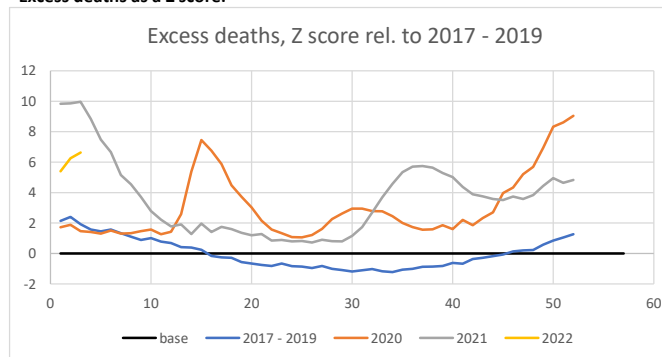
Common causes of death, normalized to COVID. Pre-Covid: 1Q2017 thru 1Q2020, Post-Covid 2Q2020 thru 1Q2021



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

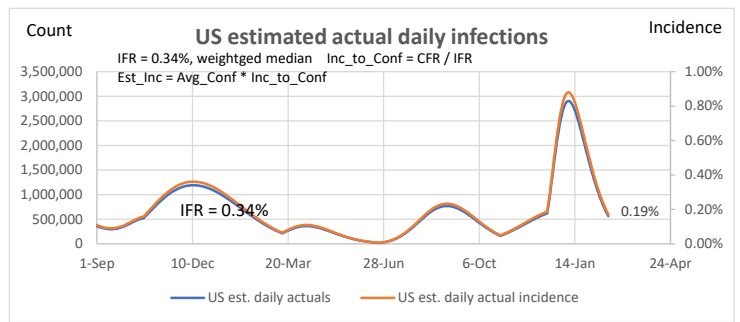
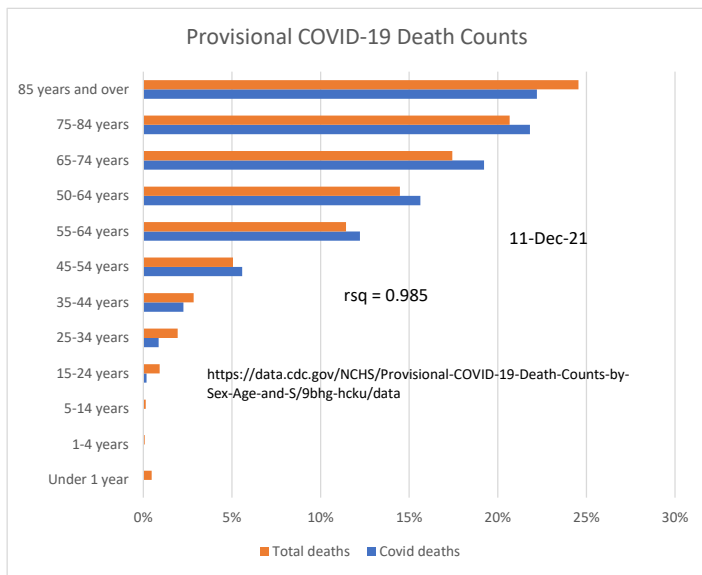


Excess deaths as a Z score:



Z-score = 1 based on 2017 - 2019 one standard deviation.

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 underreported.



#### False Positives Demonstration

Use 0.19% as estimated daily incidence

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

	95% accuracy of test	
	Positive	Negative
test pos	2.527%	4.867%
test neg	0.133%	92.473%
	2.660%	97.340%

0.19% X 14 = 2.660%

#### 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%

False pos. is more than half of total positives.

TRUE +	2.527%/7.39%	34.2%
FALSE +	4.867%/7.39%	65.8%
Total		100.00%

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

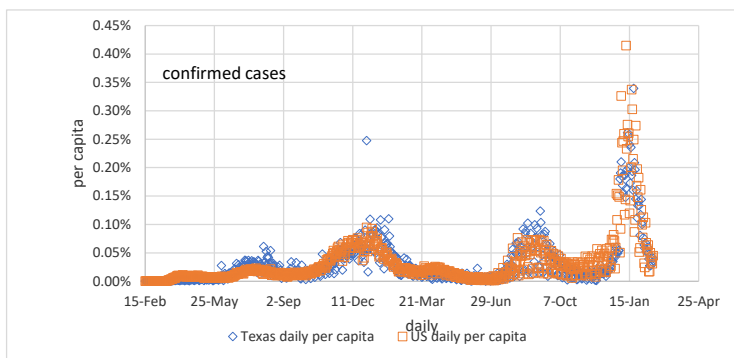
3 yr average

859:100,000

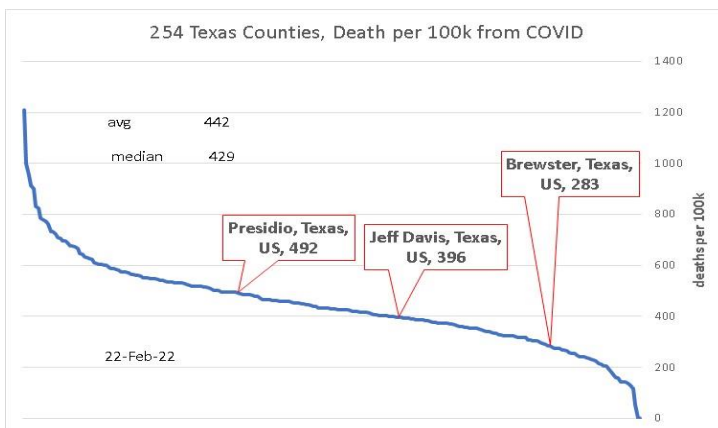
29% of All-Cause excess deaths are non-CV19

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

#### US vs. Texas



#### Tri-Counties in Texas:



#### 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	1048:100,000	905:100,000	-
Diff.	189:100,000	47:100,000	142:100,000

3 yr average

859:100,000

25% of All-Cause excess deaths not CV19

Linear Year Projection

142:100,000

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

6 weeks	All Cause	All Cause, excl. CV19	CV19
3 yr average before 2020	110:100,000	110:100,000	-
2022	128:100,000	101:100,000	27:100,000
Diff.	18:100,000	-10:100,000	27:100,000

3 yr average

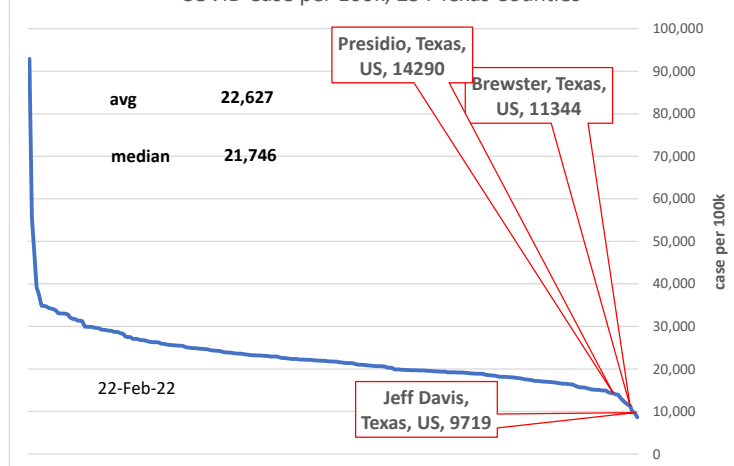
859:100,000

-55% of All-Cause excess deaths not CV19

Linear Year Projection

276:100,000

#### COVID Case per 100k, 254 Texas Counties



#### 254 Texas Counties, Case-Fatality Ratio

