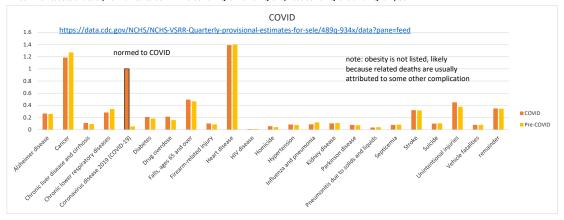
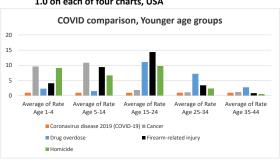
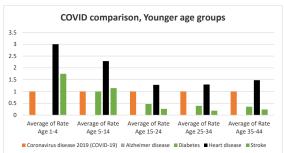
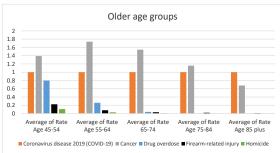
Common causes of death, normalized to COVID. Pre-Covid: 1Q2017 thru 1Q2020, Post-Covid 2Q2020 thru 1Q2021, USA

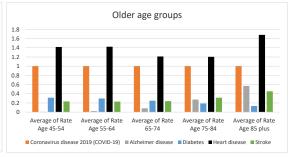


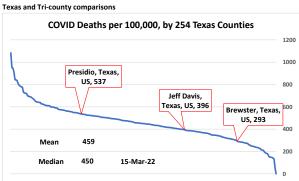
Relative effect of COVID on various age groups, and compared to cause of death. These are all relative to COVID, which is 1.0 on each of four charts, USA

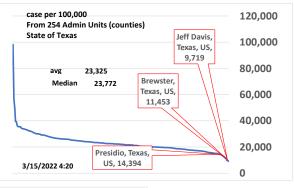


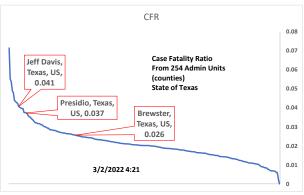


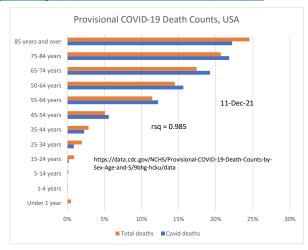


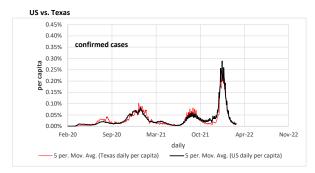












Avg expected (no COVID) 90,000 80,000 70,000 60,000 30,000 20,000 10,000 0 13 26 39 52

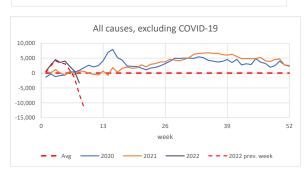
2018

- 2022

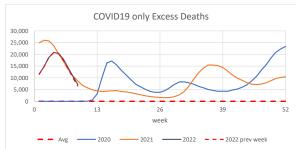
Average and Excess Deaths:

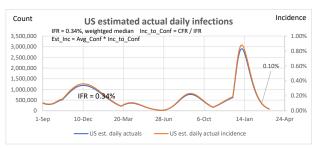
2017

- 2021



--- 2022 + covid





False Positives Demonstration

Use 0.19% as estimated daily incidence

	Positive	Negative		Sensitivity
test pos	2.527%	4.867%	7.39%	Probability of detection
test neg	0.133%	92.473%	92.61%	where condition exists
	2.660%	97.340%	100.00%	True + / (True + & False -)
				95%
False pos. is more than	half of tota	l positives.		Specificity
TRUE +	2.527%/7.3	39%	34.2%	Probability of not detecting where
FALSE +	4.867%/7.3	39%	65.8%	condition doesn't exist
Total			100.00%	True - / (True - & False +)

Example only; sensitivity and specifity not necessarily equal.

95%

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

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

USA Excess Deaths, 2021 (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	-
2021	1049:100,000	907:100,000	-
Diff.	191:100,000	48:100,000	143:100,000

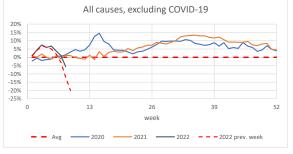
25% of All-Cause excess deaths are non-CV19

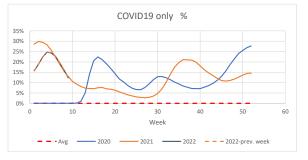
USA Excess Deaths to date (2022, from CDC data):

COM DACESS DO	Con Excess Deaths to date (2022, from CDC data).			
Week 10)	All Cause	All Cause, excl. CV19	CV19
3 yr average befor	re 2020	146:100,000	146:100,000	-
	2022	189:100,000	149:100,000	-
	Diff.	43:100,000	4:100,000	39:100,000

3 yr average	Linea	r Year Projection
859:100,000	9% of All-Cause excess deaths not CV19	204:100,000

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





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. Therefore, last two weeks of 2022 not shown here. The previous week's data is shown as dashed, to give an idea of the effect of the gradual update.

Recent exponential growth examples:

