#### 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





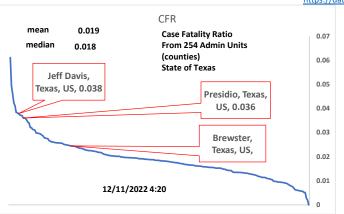




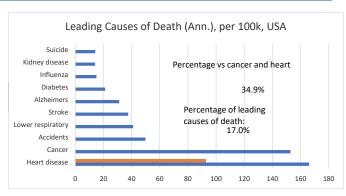
#### **Texas and Tri-county comparisons**





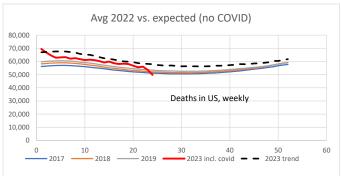


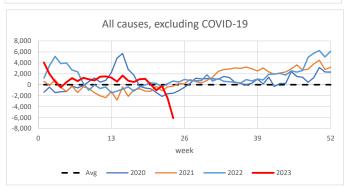
#### $\underline{https://data.cdc.gov/NCHS/Conditions-contributing-to-deaths-involving-corona/hk9y-quqm/data}$

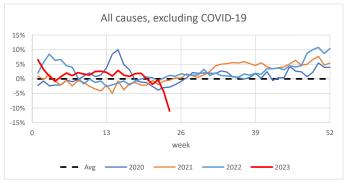


#### Average and Excess Deaths:









#### Provisional COVID-19 Death Counts by Sex, Age, and State rsq = 0.99350000 3500000 Sum of COVID-19 Deaths 300000 3000000 2500000 E 2000000 L 1500000 L 250000 22-Feb-23 200000 150000 100000 1000000 50000 500000 Since 2020, □ Sum of COVID-19 Deaths ■ Sum of Total Deaths inclusive

# Under 65 Over 65 All 26.0% 74.0% COVID-19 25.5% 74.5%

#### Conditions Contributing to COVID-19 Deaths, by State and Age, Provisional 2020-2022

This dataset shows health conditions and contributing causes mentioned in conjunction with deaths involving coronavirus disease 2019 (COVID-19) by age group and jurisdiction of occurrence. 2020-2022 data are provisional.

## 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				0.19% X 14 = 2.660%
	Positive	Negative		<u>Sensitivity</u>
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 total positives.			Specificity	
TRUE +	2.527%/7.3	19%	34.2%	Probability of not detecting where
FALSE +	4.867%/7.3	19%	65.8%	condition doesn't exist
Total			100.00%	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

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

#### USA Excess Deaths, 2021 (from CDC data):

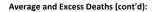
Annualized on 52 weeks			
	All Cause	All Cause, excl. CV19	CV19
3 yr average before 2020	859:100,000	859:100,000	-
2021	1052:100,000	909:100,000	-
Diff.	193:100,000	50:100,000	143:100,000

26% of All-Cause excess deaths are non-CV19

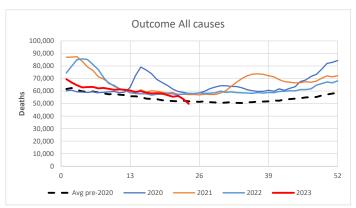
#### USA Excess Deaths to date (2022, from CDC data):

All Cause	All Cause, excl. CV19	CV19
859:100,000	859:100,000	-
994:100,000	909:100,000	-
135:100,000	59:100,000	76:100,000
	All Cause 859:100,000 994:100,000	All Cause All Cause, excl. CV19 859:100,000 859:100,000 994:100,000 909:100,000

43% of All-Cause excess deaths are non-CV19



17-Jun-23



USA Excess Deaths to date (2023, from CDC data):

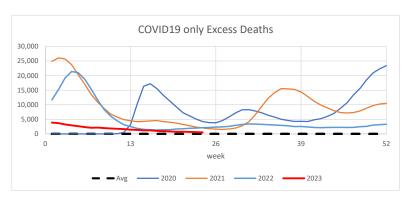
Week 24	All Cause	All Cause, excl. CV19	CV19
3 yr average before 2020	419:100,000	419:100,000	-
2023	438:100,000	425:100,000	-
Diff.	19:100,000	6:100,000	13:100,000

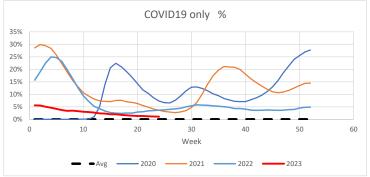
Linear Year Projection 27:100,000

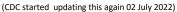
https://data.cdc.gov/NCHS/Excess-Deaths-Associated-with-COVID-19/xkkf-xrst/data

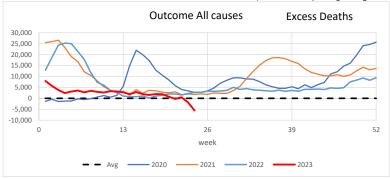
Total, latest update	504:100,000	161:100,000	343:100,000
Annualized	144:100,000	46:100,000	98:100,000

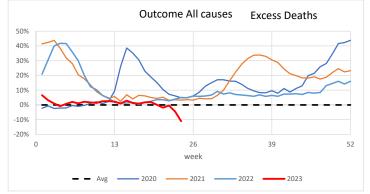
32% of All-Cause excess deaths are non-CV19





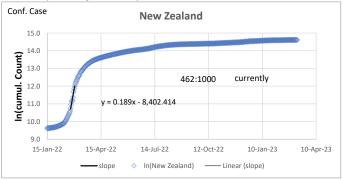


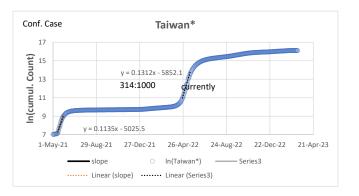




Data in recent weeks are incomplete. Only 60% of death records are submitted to NCHS within 10 days of the date of death, and completeness varies by jurisdiction. Data are not weighted and counts are likely underreported.

#### Recent exponential growth examples:





#### Vaccinations and cumulative outcomes:



(Feb 2021 picked because that's about when vaccines became available)



https://healthdata.gov/Health/COVID-19-Community-Profile-Report/gaxm-d9w9
https://github.com/CSSEGISandData/COVID-19/blob/master/csse covid 19 daily reports us/03-29-2022.csv