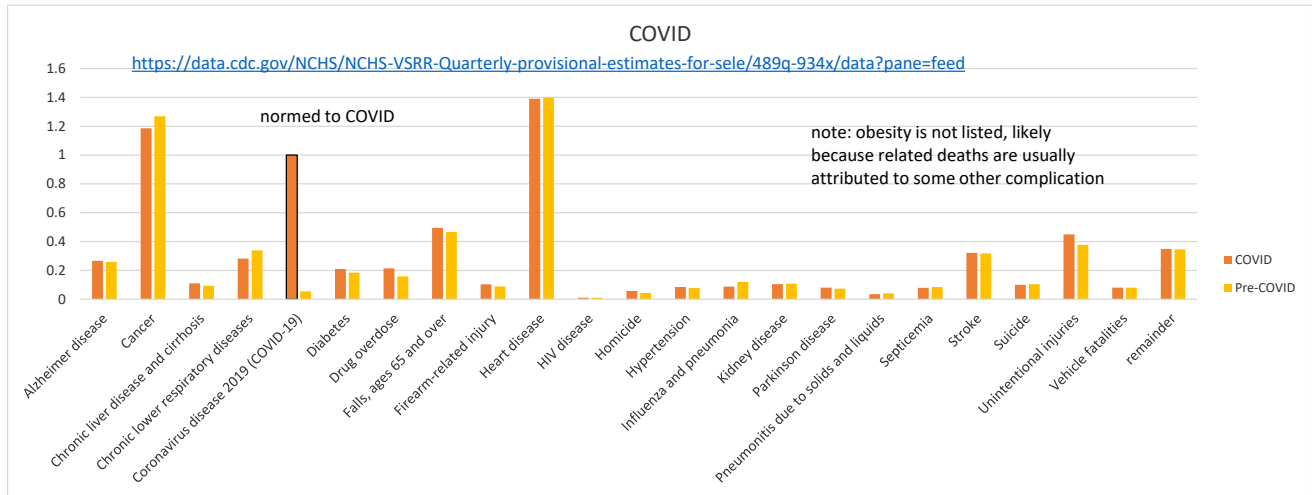
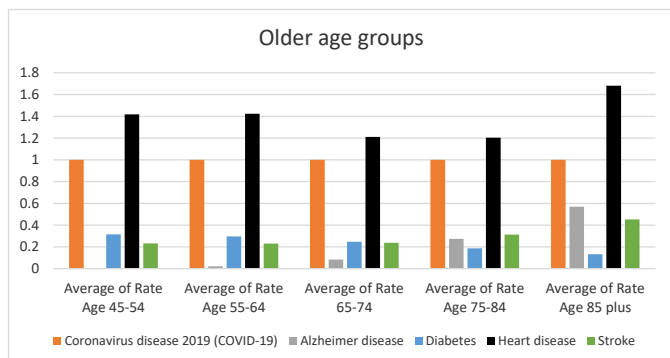
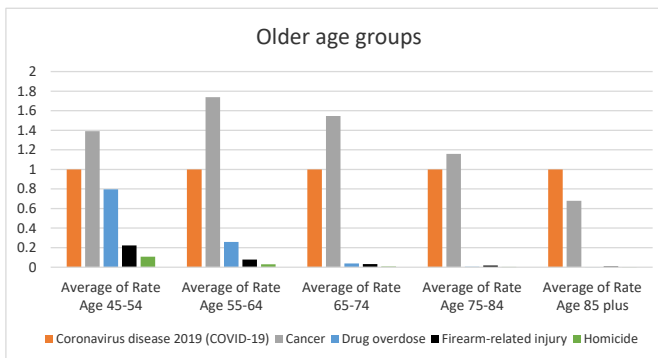
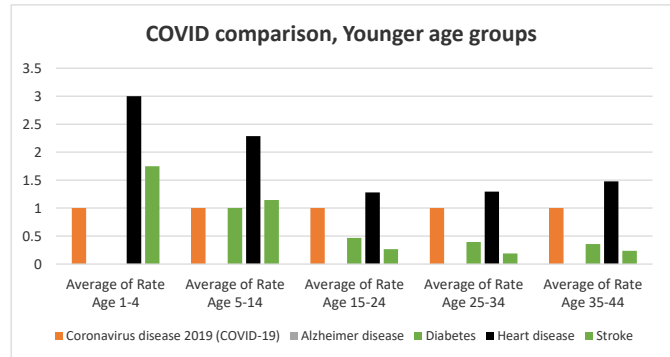
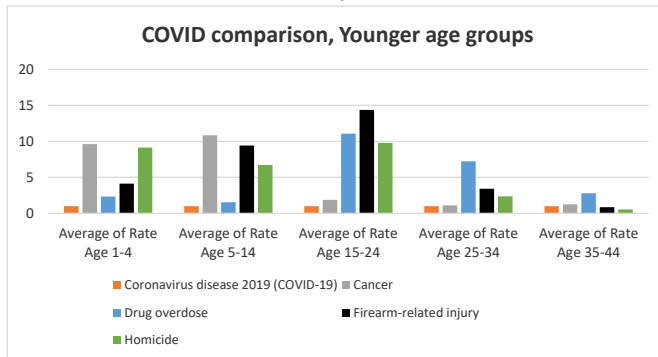


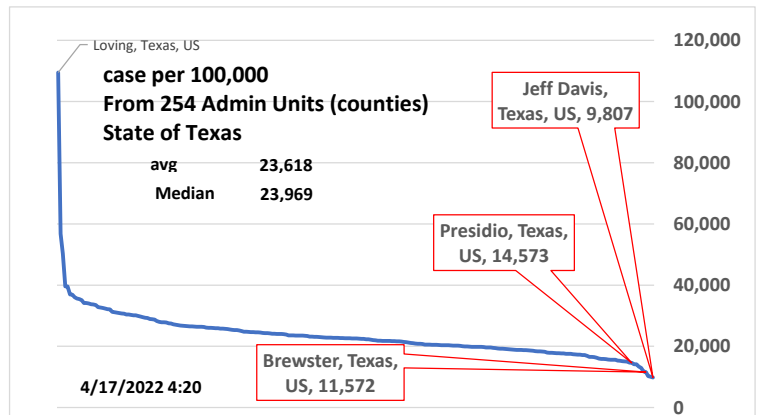
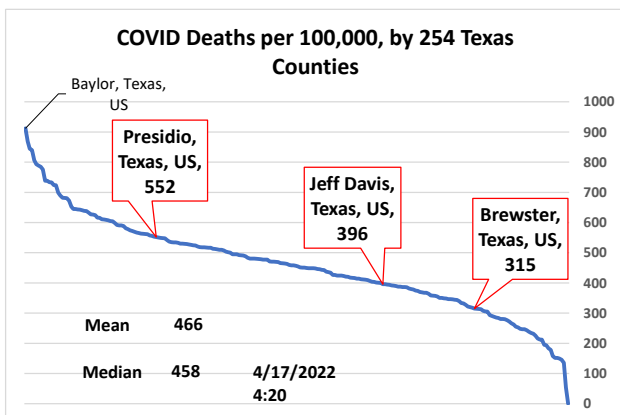
Common causes of death, normalized to COVID. Pre-Covid: 1Q2017 thru 1Q2020, Post-Covid 2Q2020 thru 1Q2021, USA

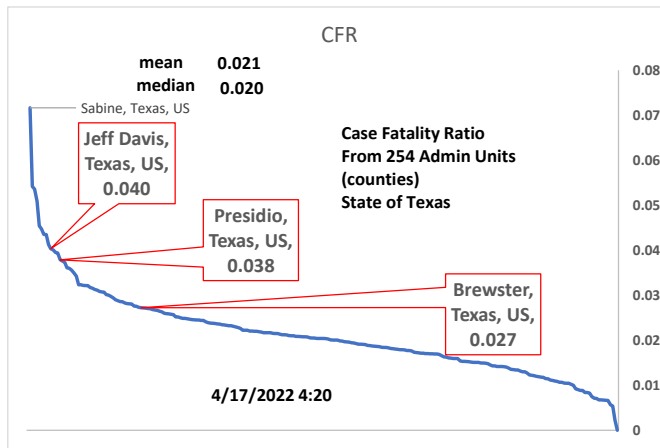


Relative effect of COVID on various age groups, and compared to cause of death. These are all relative to COVID, which is 1.0 on each of four charts, USA

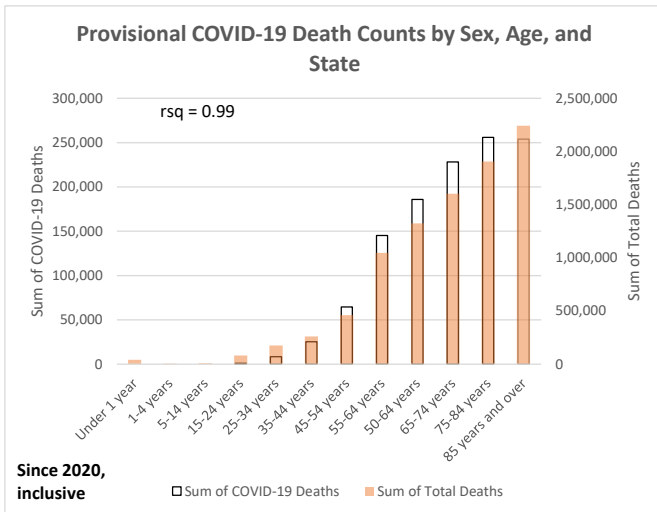


Texas and Tri-county comparisons





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



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

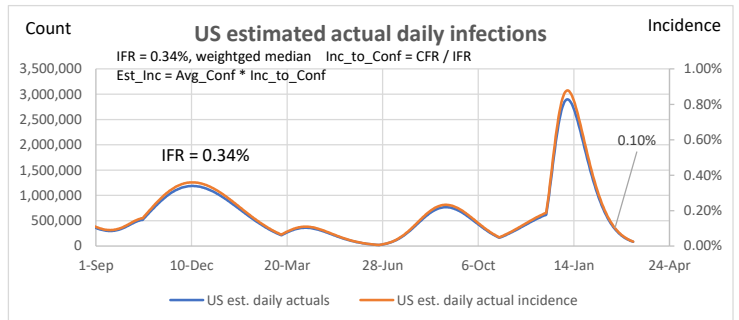
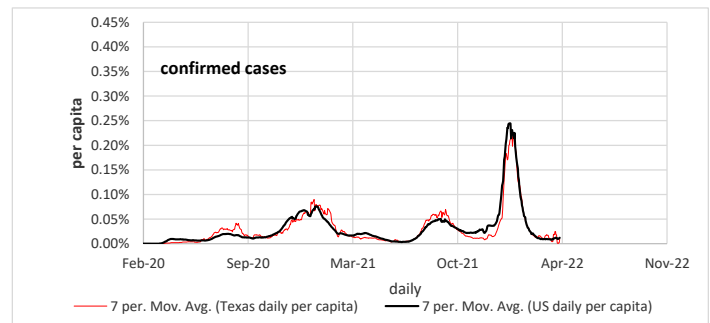
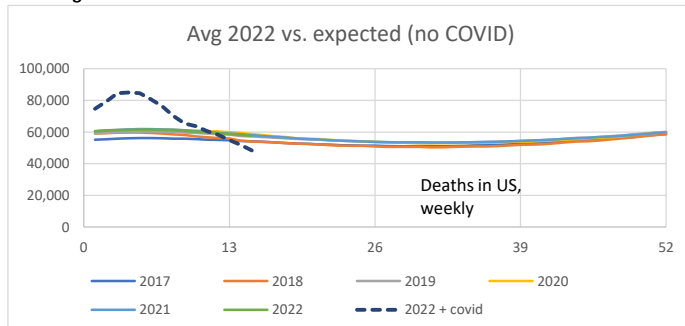
Conditions Contributing to COVID-19 Deaths, by State and Age, Provisional 2020-2022

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.

<https://data.cdc.gov/NCHS/Conditions-contributing-to-deaths-involving-corona/hk9y-quqm/data>

US vs. Texas

Average and Excess Deaths:



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% 100.00%

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% |

0.19% X 14 = 2.660%

Sensitivity

Probability of detection

where condition exists

True + / (True + & False -)

95%

Specificity

Probability of not detecting where

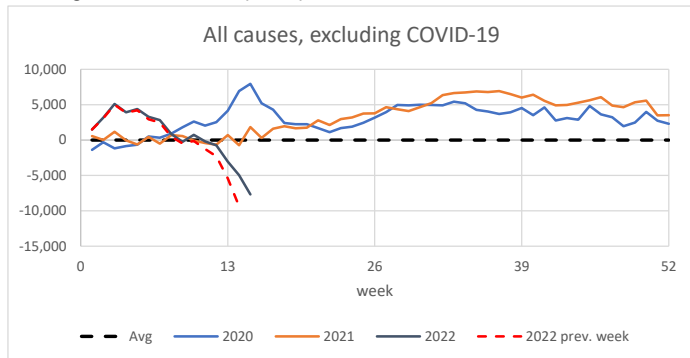
condition doesn't exist

True - / (True - & False +)

95%

Example only; sensitivity and specificity not necessarily equal.

Average and Excess Deaths (cont'd):



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 | 910:100,000 | - |
| Diff. | 193:100,000 | 51:100,000 | 143:100,000 |

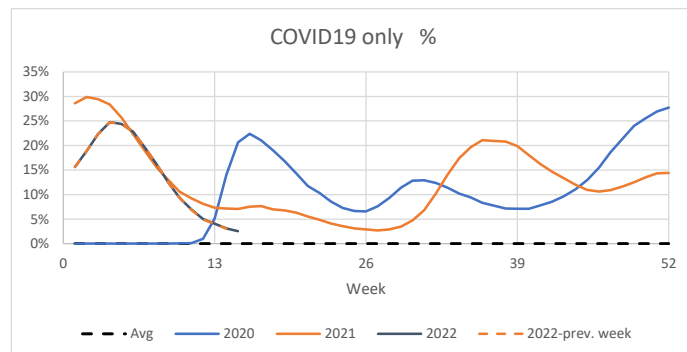
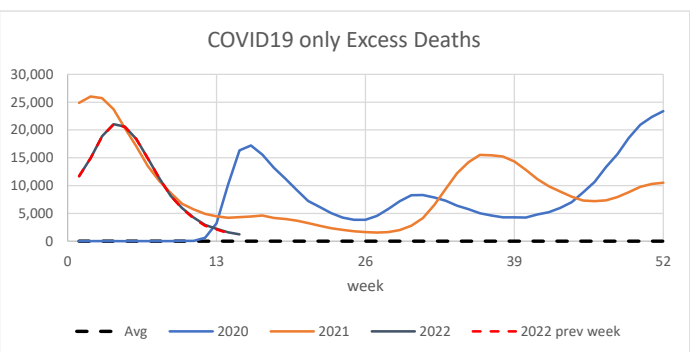
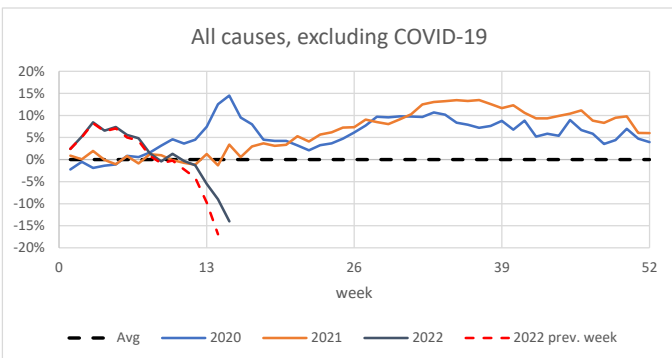
26% of All-Cause excess deaths are non-CV19

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

| Week 15 | All Cause | All Cause, excl. CV19 | CV19 |
|--------------------------|-------------|-----------------------|------------|
| 3 yr average before 2020 | 266:100,000 | 266:100,000 | - |
| 2022 | 315:100,000 | 267:100,000 | - |
| Diff. | 49:100,000 | 1.0:100,000 | 48:100,000 |

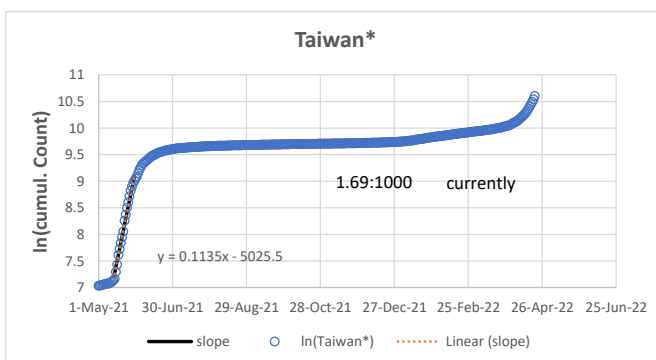
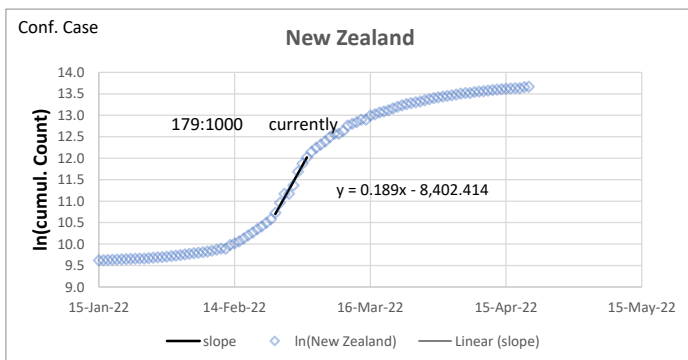
| 3 yr average | Linear Year Projection |
|--|------------------------|
| 859:100,000 | 166:100,000 |
| 2% of All-Cause excess deaths not CV19 | |

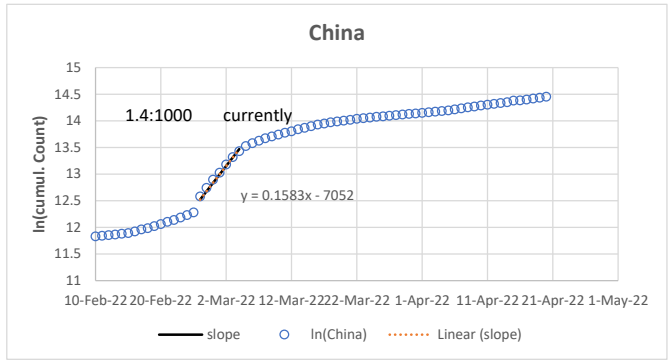
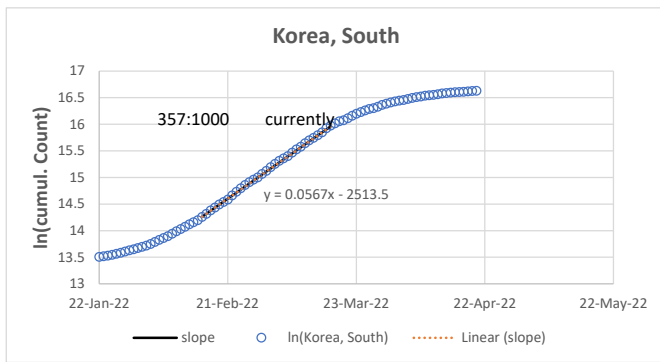
<https://data.cdc.gov/NCHS/Excess-Deaths-Associated-with-COVID-19/xkxf-xrst/data>



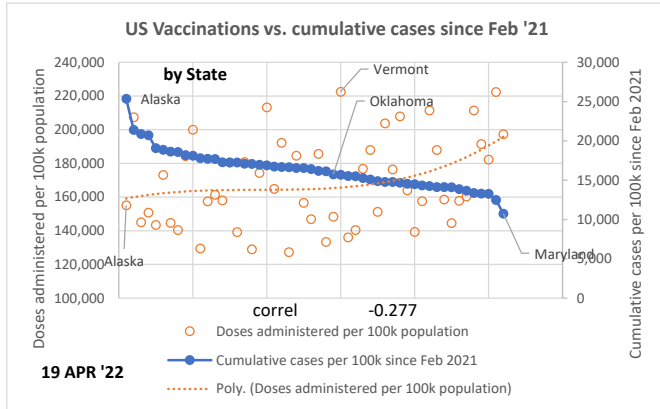
Data in recent weeks are incomplete. Only 60% of death records are submitted to NCHS within 10 days of the date of death, and completeness varies by jurisdiction. Data are not weighted and counts are likely underreported. The previous week's data is shown as dashed, to give an idea of the effect of the gradual update.

Recent exponential growth examples:

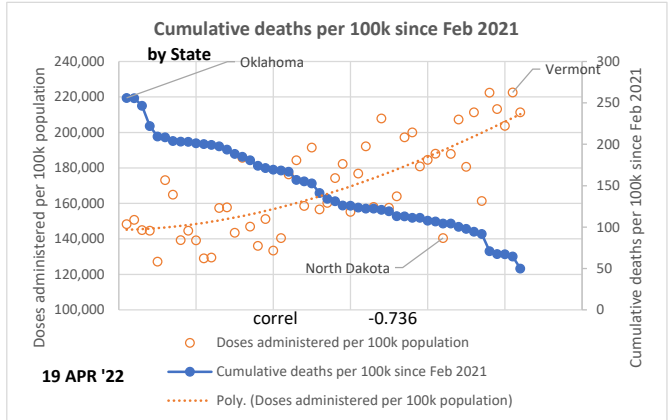




Vaccinations and cumulative outcomes:



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



<https://healthdata.gov/Health/COVID-19-Community-Profile-Report/gqxm-d9w9>

https://github.com/CSSEGISandData/COVID-19/blob/master/csse_covid_19_data/csse_covid_19_daily_reports_us/03-29-2022.csv