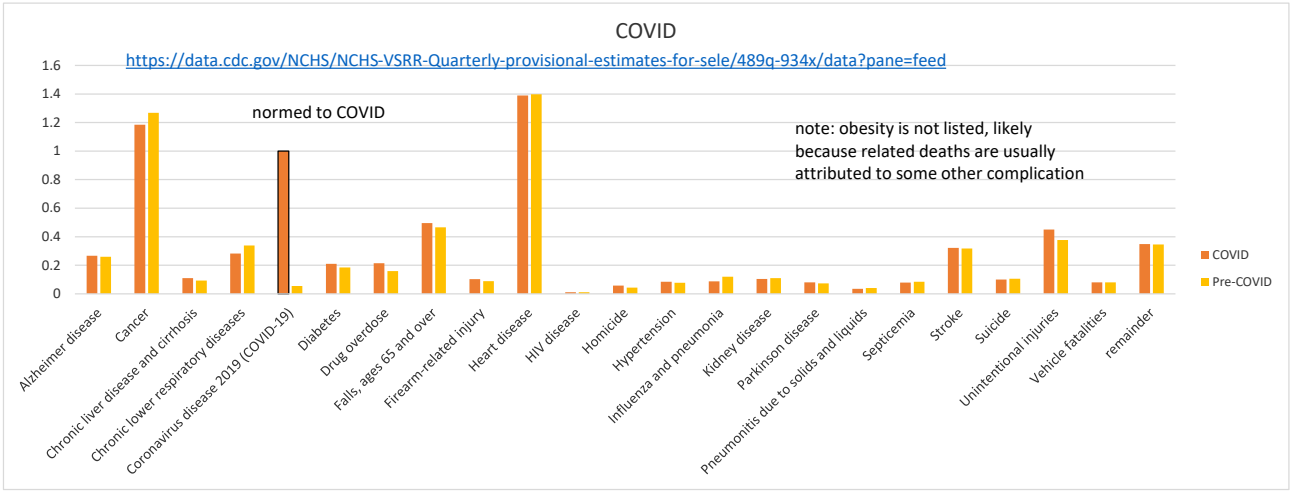
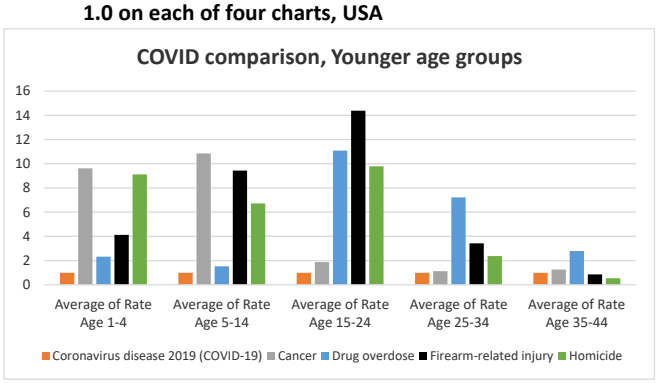
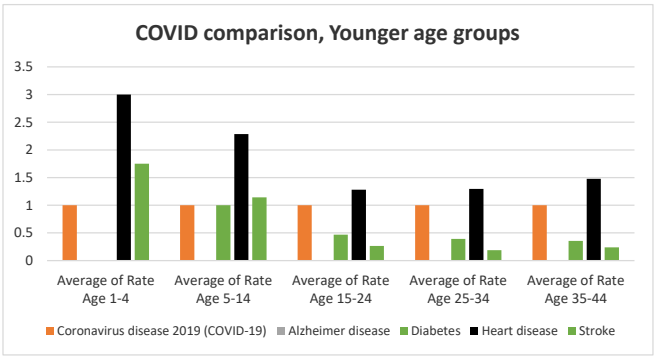
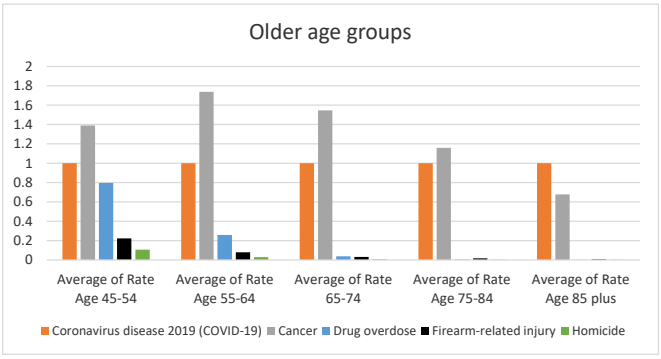
**Common causes of death, normalized to COVID. Pre-Covid: 1Q2017 thru 1Q2020, Post-Covid 2Q2020 thru 1Q2021, USA**

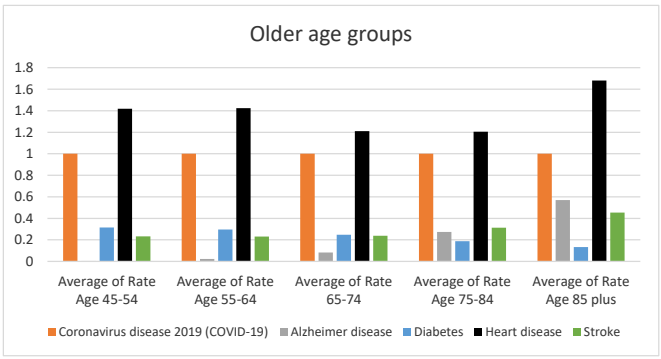



**Relative effect of COVID on various age groups, and compared to cause of death. These are all relative to COVID, which is 1.0 on each of four charts, USA**

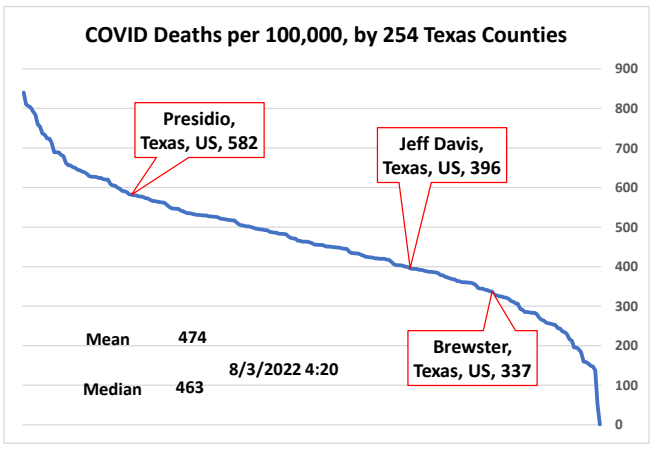


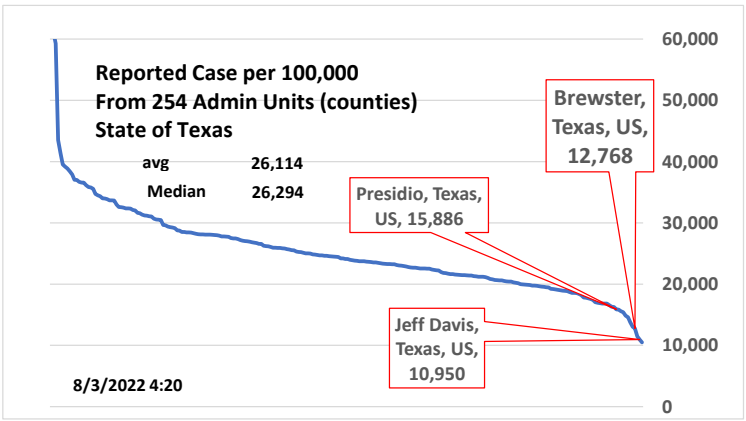



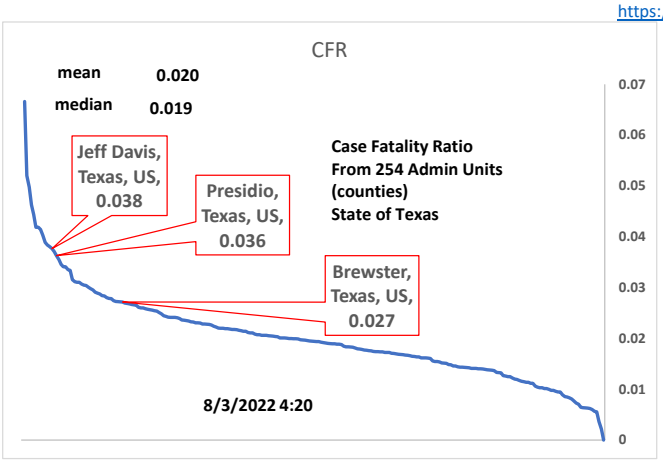

**Texas and Tri-county comparisons**

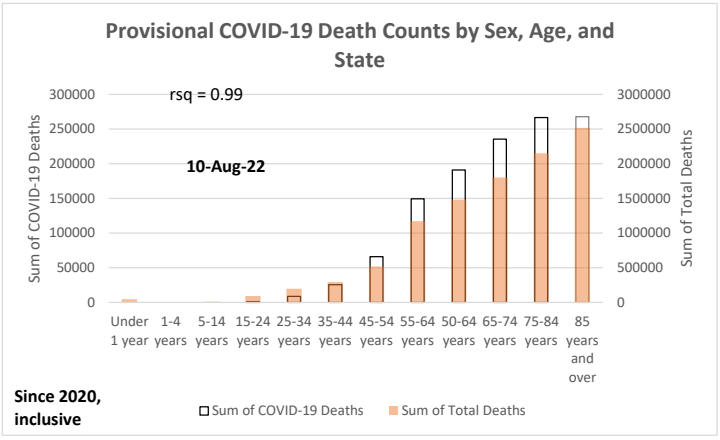


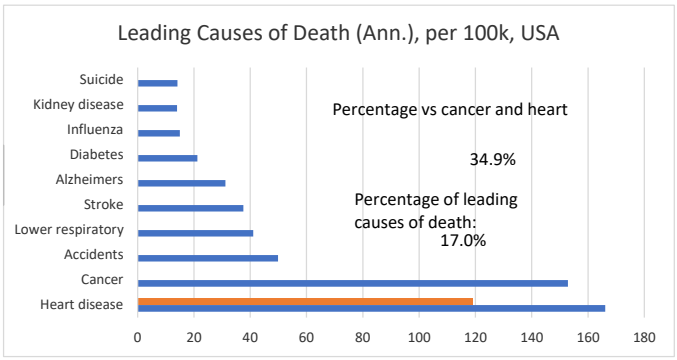

https://data.cdc.gov/NCHS/Excess-Deaths-Associated-with-COVID-19/xkkf-xrst/data

https://data.cdc.gov/NCHS/Provisional-COVID-19-Death-Counts-by-Sex-Age-and-S/9bhg-hcku/data



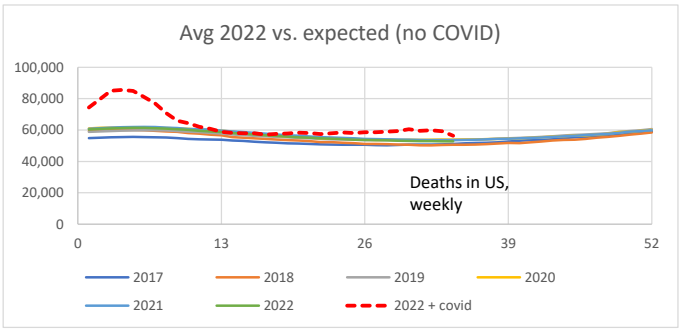

https://data.cdc.gov/NCHS/Conditions-contributing-to-deaths-involving-corona/hk9y-guqm/data




| | 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.

**Average and Excess Deaths:** **20-Aug-22**




<u>False Positives Demonstration</u>
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% | 7.39% |
| test neg | 0.133% | 92.473% | 92.61% |
| | 2.660% | 97.340% | 100.00% |

False pos. is more than half of total positives.

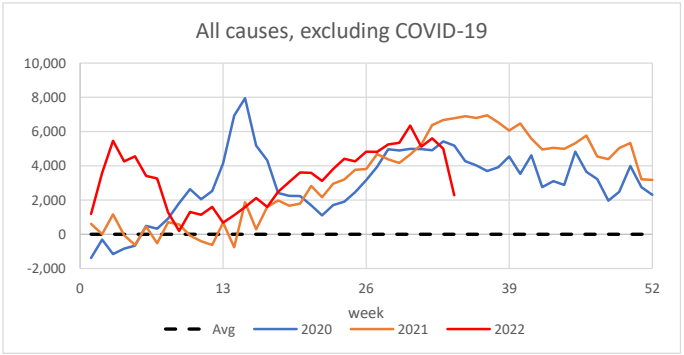
| | | |
|---|---|---|
| TRUE + | 2.527%/7.39% | 34.2% |
| FALSE + | 4.867%/7.39% | 65.8% |
| Total | ---------- | 100.00% |

0.19% X 14 = 2.660%

<u>Sensitivity</u>
Probability of detection where condition exists
True + / (True + & False -)
95%

<u>Specificity</u>
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):**

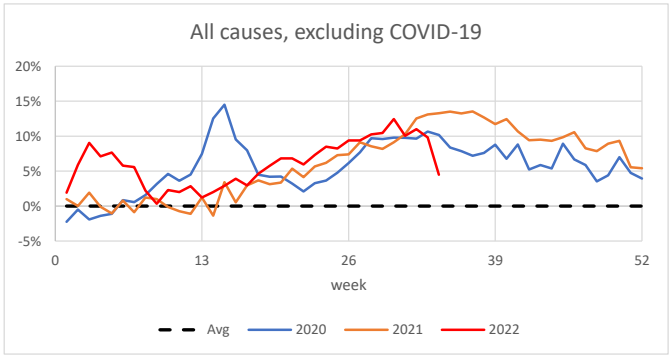
| Annualized on 52 weeks | | | |
|---|---|---|---|
| | All Cause | All Cause, excl. CV19 | CV19 |
| 3 yr average before 2020 | 859:100,000 | 859:100,000 | - |
| 2020 | 1016:100,000 | 905:100,000 | - |
| Diff. | 157:100,000 | 46:100,000 | 111:100,000 |

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):**

| Week 34 | All Cause | All Cause, excl. CV19 | CV19 |
|---|---|---|---|
| 3 yr average before 2020 | 564:100,000 | 564:100,000 | - |
| 2022 | 660:100,000 | 597:100,000 | - |
| Diff. | 96:100,000 | 33:100,000 | 62:100,000 |

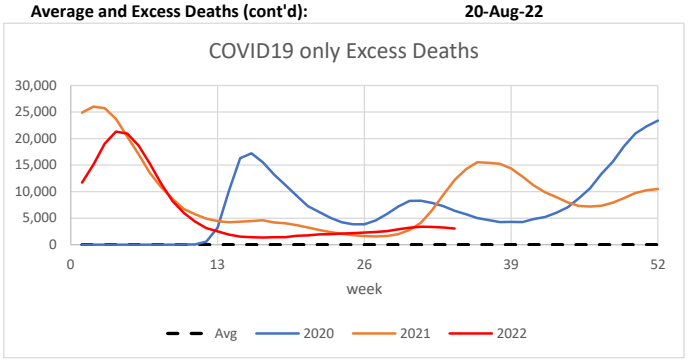
2022 Linear Year Projection
35% of All-Cause excess deaths not CV19 95:100,000

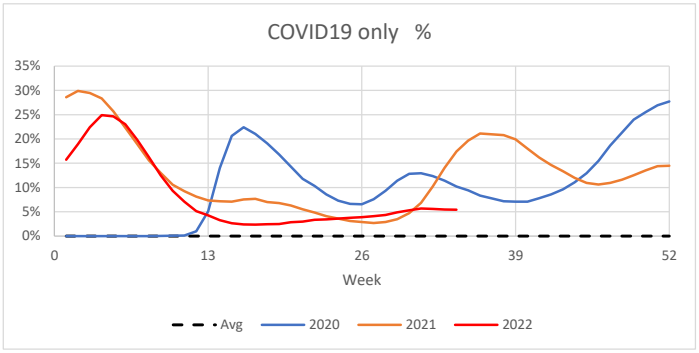
https://data.cdc.gov/NCHS/Excess-Deaths-Associated-with-COVID-19/xkkf-xrst/data

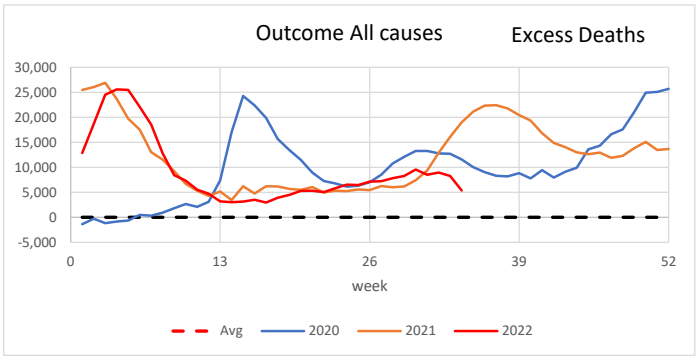
| | | | |
|---|---|---|---|
| Total, latest update | 446:100,000 | 130:100,000 | 316:100,000 |
| Annualized | 170:100,000 | 49:100,000 | 121:100,000 |

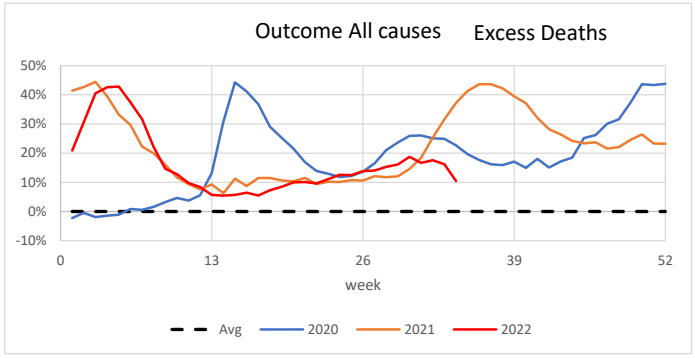
29% of All-Cause excess deaths not CV19

**Average and Excess Deaths (cont'd):** **20-Aug-22**



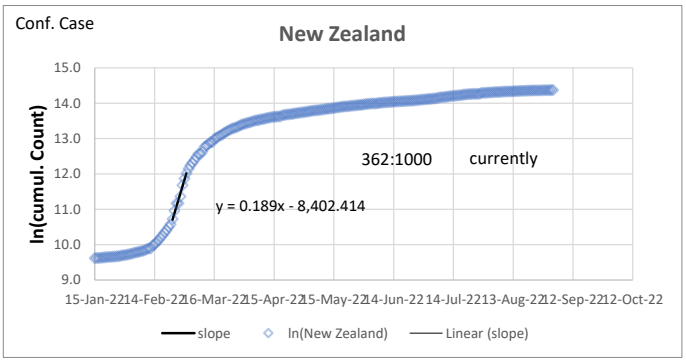



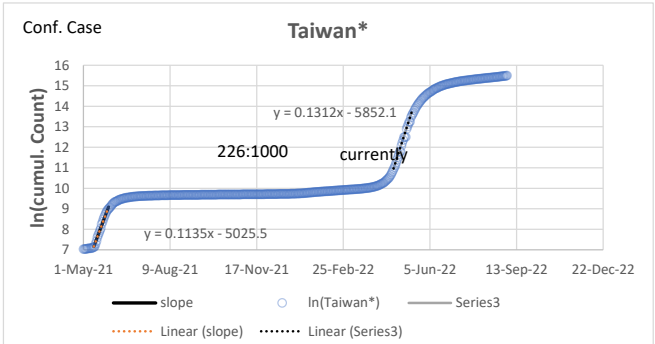



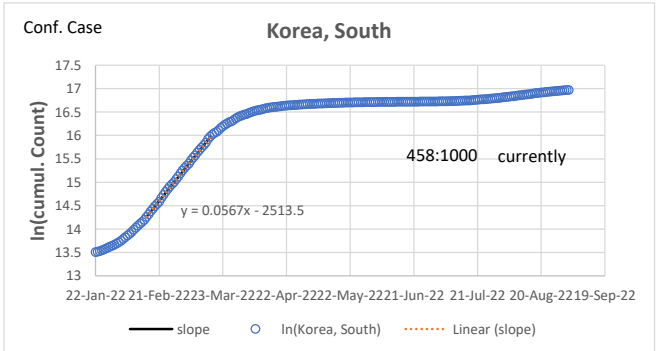

(CDC started updating this again 02 July 2022)

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:**

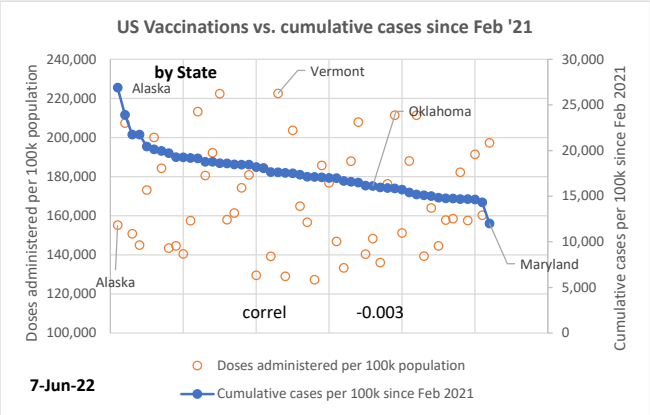


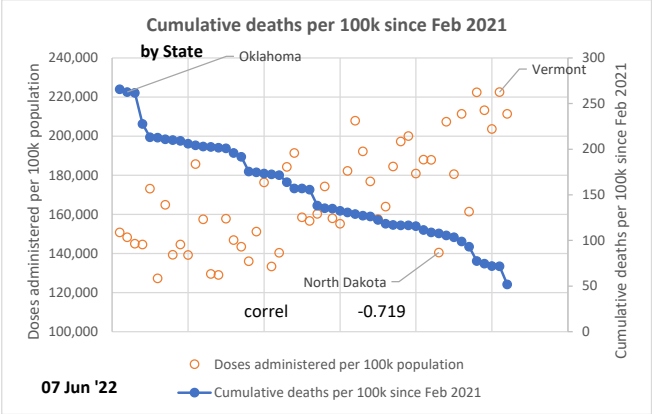



**Vaccinations and cumulative outcomes:**

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




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

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