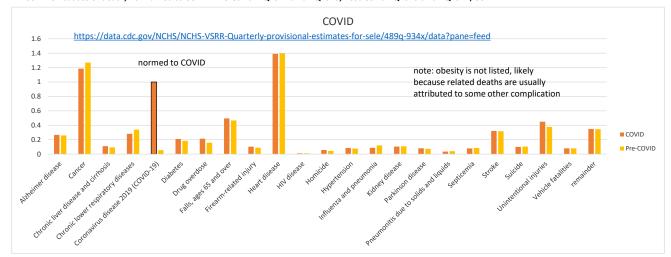
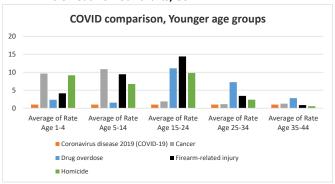
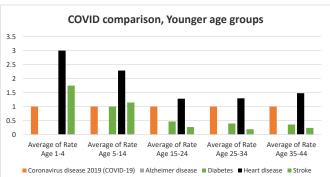
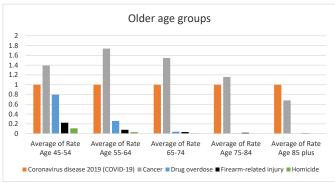
#### Common causes of death, normalized to COVID. Pre-Covid: 1Q2017 thru 1Q2020, Post-Covid 2Q2020 thru 1Q2021, USA

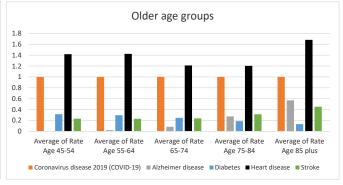


# Relative effect of COVID on various age groups, and compared to cause of death. These are all relative to COVID, which is 1.0 on each of four charts, USA

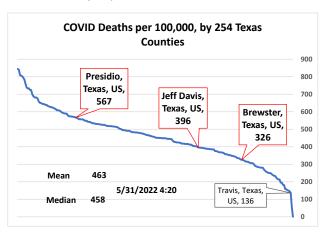


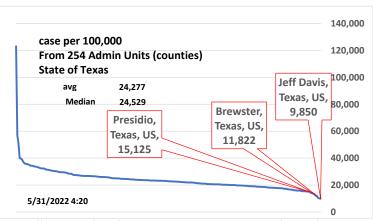




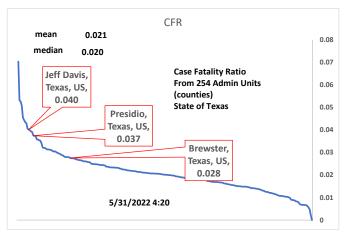


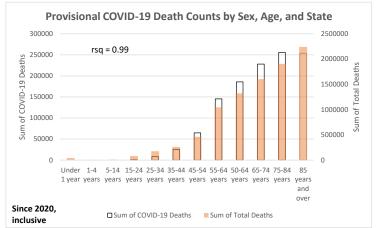
#### **Texas and Tri-county comparisons**



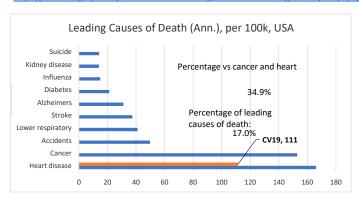


 $\underline{\text{https://data.cdc.gov/NCHS/Excess-Deaths-Associated-with-COVID-19/xkkf-xrst/data}}$ 





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



# COVID-19 25.5% 74.5%

74.0%

Under 65 Over 65

26.0%

Αll

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

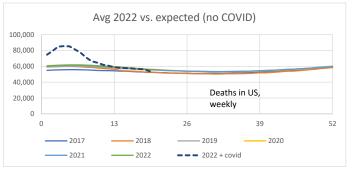
Use 0.19% as estimated daily incidence

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

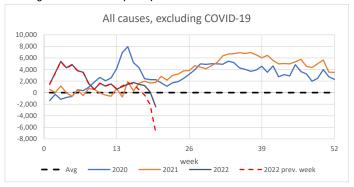
| 95% accuracy of test                             |            | 0.19% X 14 = 2.660% |             |                                    |
|--|------------|---------------------|-------------|------------------------------------|
|  | Positive   | Negative            |             | <u>Sensitivity</u>                 |
| 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 | 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 +)        |
|  |            |                     |             | 95%                                |

Example only; sensitivity and specifity not necessarily equal.

# Average and Excess Deaths:



# Average and Excess Deaths (cont'd):



## All causes, excluding COVID-19 20% 15% 10% 5% 0% -5% -10% -15% 13 26 39 52 week - 2020 - 2021 ----- 2022 prev. week

### 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 |

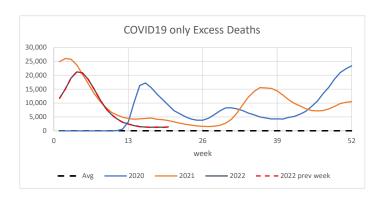
26% of All-Cause excess deaths are non-CV19

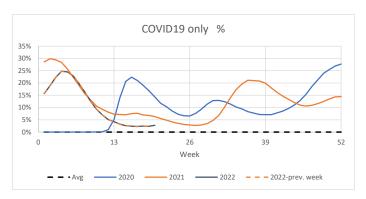
# USA Excess Deaths to date (2022, from CDC data):

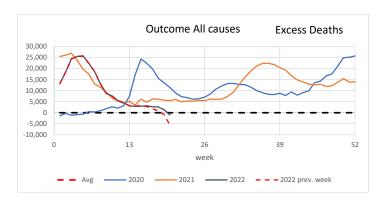
| Week 20                  | All Cause   | All Cause, excl. CV19 | CV19       |
|--------------------------|-------------|-----------------------|------------|
| 3 yr average before 2020 | 346:100,000 | 346:100,000           | -          |
| 2022                     | 408:100,000 | 357:100,000           | -          |
| Diff.                    | 61:100,000  | 10.6:100,000          | 51:100,000 |

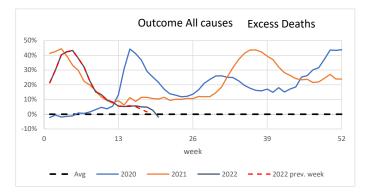
| Dill.        | 01.100,000      | 10.0.100,000              | 31.100,000        |
|--------------|-----------------|---------------------------|-------------------|
|              |                 |                           |                   |
| ı            | •               |                           |                   |
| 3 yr average |                 | Linea                     | r Year Projection |
| 859:100.000  | 17% of All-Caus | se excess deaths not CV19 | 132:100.000       |

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





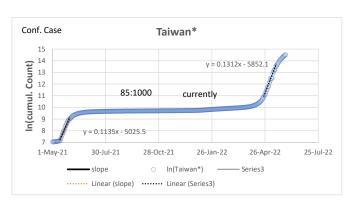


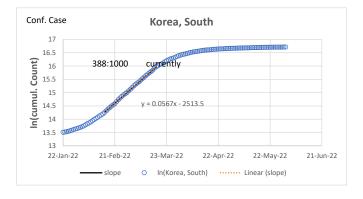


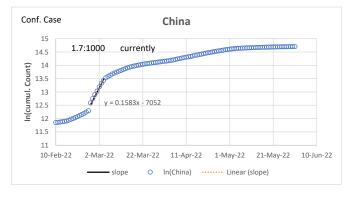
Data in recent weeks are incomplete. Only 60% of death records are submitted to NCHS within 10 days of the date of death, and completeness varies by jurisdiction. Data are not weighted and counts are likely underreported. The previous week's data is shown as dashed, to give an idea of the effect of the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

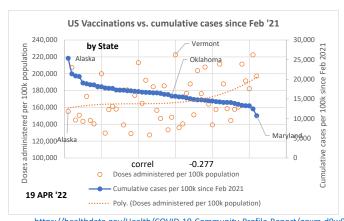
# Recent exponential growth examples:

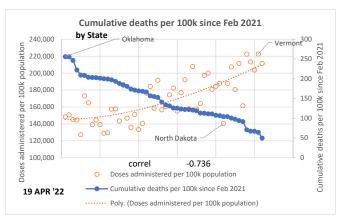












https://healthdata.gov/Health/COVID-19-Community-Profile-Report/gqxm-d9w9 https://github.com/CSSEGISandData/COVID-19/blob/master/csse covid 19 data/csse covid 19 dat