

**US state-wise VAERS COVID19 injection death rate predict state-wise 2021 excess all cause mortality rate**

Results suggest that 2021 excess all cause mortality is mainly or at least to large extents due to secondary effects of COVID19 injections.

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For the USA, total all cause mortality increased by 613779 deaths in 2021 (<https://www.cdc.gov/nchs/fastats/state-and-territorial-data.htm>) as compared to 2019 (<https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-08-508.pdf>) and by 114336 deaths as compared to 2020 ([https://hdpulse.nimhd.nih.gov/data-portal/mortality/table?cod=247&cod\\_options=cod\\_15&ratetype=%2a&ratetype\\_options=ratetype\\_2&race=00&race\\_options=race\\_6&sex=0&sex\\_options=sex\\_3&age=001&age\\_options=age\\_11&ruralurban=0&ruralurban\\_options=ruralurban\\_3&yeargrb.gy/omw72](https://hdpulse.nimhd.nih.gov/data-portal/mortality/table?cod=247&cod_options=cod_15&ratetype=%2a&ratetype_options=ratetype_2&race=00&race_options=race_6&sex=0&sex_options=sex_3&age=001&age_options=age_11&ruralurban=0&ruralurban_options=ruralurban_3&yeargrb.gy/omw72)).

This corresponds to an average state-wise increase in age-adjusted all cause mortality rate of about 1 promil in 2021, a 12 percent increase, from 7.96 to 8.93 deaths promil. Previous analyses of state-wise monthly all cause mortality showed increases in all cause mortality proportional to monthly statewide COVID19 vaccine injections (Pantazatos and Seligmann 2021, (PDF) [COVID vaccination and age-stratified all-cause mortality risk \(researchgate.net\)](#)), suggesting that these injections could explain 2021-excess mortality. That study found that expected injection-associated deaths were for that period about 21 times larger than reported in the Vaccine Adverse Event Reports System (VAERS, <https://wonder.cdc.gov/controller/datarequest/D8;jsessionid=59584AD0A9BFC60C73E16109806E>), confirming underreporting of adverse effects in systems such as VAERS, based on self-reporting. These previous results predict that state-wise all cause excess mortality should be proportional to state-wise death rates in VAERS (accessed June 21 2023).

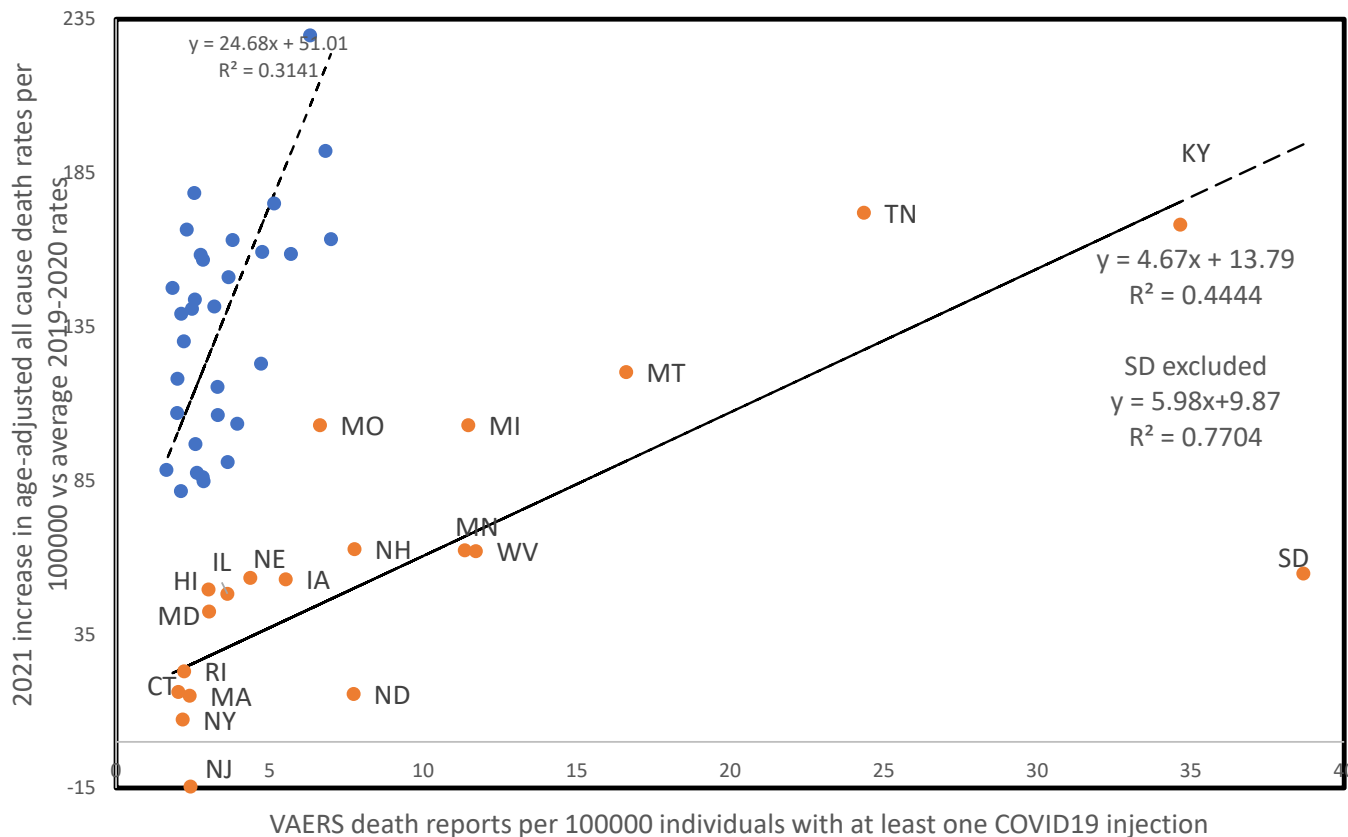


Figure 1. Excess 2021 state-wise all cause mortality vs statewise VAERS death rates. The two state groups are determined by eyeballing. Note that 2021 all cause mortality increased in all states besides New Jersey.

Figure 1 shows that excess 2021 state-wise all cause mortality increases proportionally to statewise VAERS death rates (number of C19 injection-associated VAERS reports per 100000 individuals with at least one injection in that state). There are two groups of states, of 20 and 30 states, differing in the increase rate of all cause excess death rates per VAERS death rates. In the 20- and 30-state groups (respective total populations of about 110 and 224 million inhabitants), excess death rates increase  $\sim 5$  and  $\sim 25$  times faster than VAERS death rates. The average of these two groups weighted by population sizes shows that excess death rates increase 19 times faster than the VAERS death rate. This is very close to 21 times, a previous estimation of this ratio (Pantazatos and Seligmann 2021, [\(PDF\) COVID vaccination and age-stratified all-cause mortality risk \(researchgate.net\)](#)).

The causes for these two distinct groups of states are unknown. These could range from different vaccine type distribution, batch qualities (Schmeling et al 2023, <https://onlinelibrary.wiley.com/doi/10.1111/eci.13998>), biases in reporting habits/administration of VAERS reports, to health of the respective population groups. Note that using different versions of the VAERS database (<https://www.vaersaware.com/>) according to different publication dates and reports corrections does not alter qualitatively results shown here.

Figure 2 shows a clear geographic clustering of the two distinct groups of states, which is unexplained but far from the expected random mosaic.

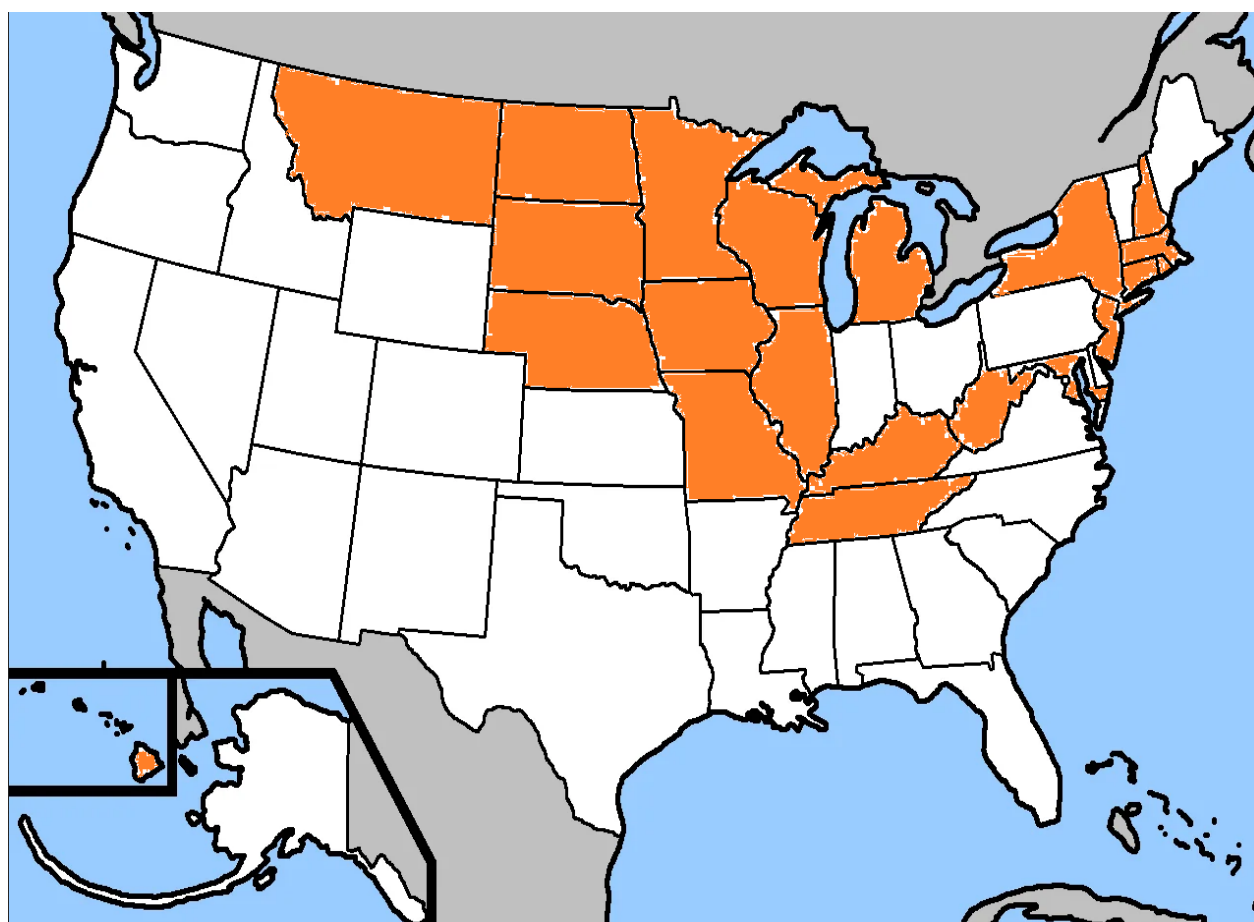


Figure 2. Geographic clustering of distinct state groups observed from analysis of association between statewise VAERS death rate vs increase in all cause mortality in Figure 1.

Map canvas from [https://www.reddit.com/r/mapping/comments/nl3782/i\\_made\\_a\\_blank\\_map\\_of\\_the\\_united\\_states\\_of/](https://www.reddit.com/r/mapping/comments/nl3782/i_made_a_blank_map_of_the_united_states_of/).

Independently of this, patterns suggest that deadly secondary effects of COVID19 injections associate with most excess all cause mortality in 2021.

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