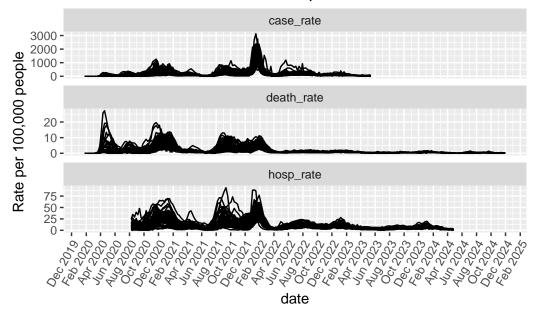
## **Supplementary Methods**

Waves Plot – We used this visualization to choose the waves we wanted to analyze.

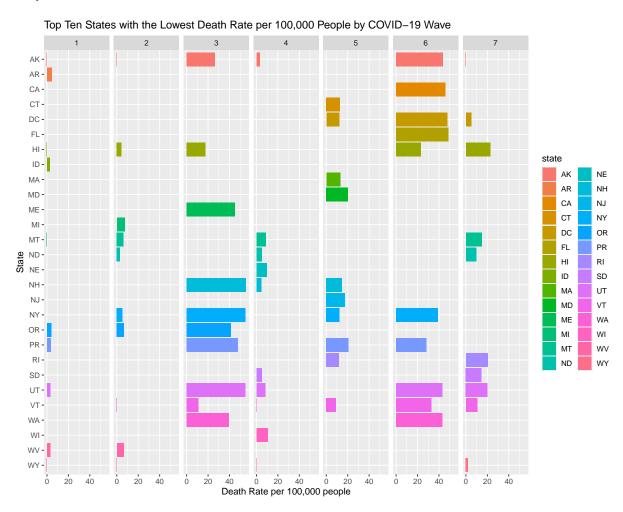
Trend Plot for Covid Cases, Hospitalizations, and Deaths



Top 10 Highest Death Rates Plot



Top 10 Lowest Death Rates Plot



## Top Ten Highest Excess Mortality Rates Table

Table 1: Top Ten States with Highest Excess Mortality Rates

| rank | Wave 1              | Wave 2              | Wave 3 | Wave 4 | Wave 5              | Wave 6 | Wave 7 |
|------|---------------------|---------------------|--------|--------|---------------------|--------|--------|
| 1    | NJ                  | AZ                  | MS     | WV     | WV                  | WV     | PR     |
| 2    | $\operatorname{CT}$ | MS                  | SD     | NM     | MS                  | NM     | AK     |
| 3    | DC                  | SC                  | AR     | LA     | AK                  | AZ     | WV     |
| 4    | MA                  | LA                  | OK     | DC     | $\operatorname{FL}$ | OH     | NM     |
| 5    | LA                  | $\operatorname{FL}$ | WV     | MS     | WY                  | KY     | AZ     |
| 6    | MI                  | TX                  | NM     | AZ     | LA                  | MS     | OR     |

| rank | Wave 1              | Wave 2 | Wave 3 | Wave 4 | Wave 5 | Wave 6 | Wave 7 |
|------|---------------------|--------|--------|--------|--------|--------|--------|
| 7    | RI                  | AL     | AZ     | MI     | TN     | MI     | WY     |
| 8    | MD                  | GA     | TN     | KY     | AR     | OK     | ME     |
| 9    | $\operatorname{IL}$ | NV     | AL     | SC     | MT     | TN     | MS     |
| 10   | DE                  | NM     | MO     | PR     | AL     | AR     | AR     |

## Top Ten Lowest Excess Mortality Rates Table

Table 2: Top Ten States with Lowest Excess Mortality Rates

| rank | Wave 1     | Wave 2              | Wave 3              | Wave 4 | Wave 5              | Wave 6 | Wave 7 |
|------|------------|---------------------|---------------------|--------|---------------------|--------|--------|
| 1    | ID         | VT                  | HI                  | VT     | MA                  | NY     | NJ     |
| 2    | MT         | MA                  | VT                  | MA     | RI                  | HI     | RI     |
| 3    | UT         | NJ                  | WA                  | IA     | NJ                  | UT     | PA     |
| 4    | AK         | NY                  | MA                  | RI     | NY                  | MA     | MA     |
| 5    | $_{ m HI}$ | RI                  | NY                  | NE     | $\operatorname{CT}$ | NJ     | SD     |
| 6    | NE         | $\operatorname{CT}$ | $\operatorname{UT}$ | SD     | MD                  | WA     | ND     |
| 7    | SD         | ND                  | OR                  | WI     | PA                  | VT     | NY     |
| 8    | VT         | PA                  | ME                  | NH     | NH                  | RI     | MD     |
| 9    | OR         | ME                  | NH                  | ND     | NE                  | PR     | NE     |
| 10   | WA         | NE                  | NJ                  | CT     | MN                  | ID     | CT     |