# Pathogen Genomics Center of Excellence Situation Report

2024-04-26

**Key Findings**

- Current data reflects a mixture of JN.1 descendents as the likely near term variants.
- Globally no other variants with unusual characteristics have been identified as having unusual growth.
- Some other point

*Please see Situation Updates for COE group updates*

**Site Summaries**

- Washington State Department of Health - Alpha variant proportion is 33.50%
- Georgia Department of Public Health probablity of detection: 33.38% and the consensus genomes are uploaded to public repositories like GISAID and GenBank.
- Massachusetts Department of Health prop - 33.38%
- Virginia Deparment of Health - 33.50%

## Situation Update Details

- Based on what - XYZ(?), JN.1 and descendents continue to dominate. Some recombinations from JN.1 and other BA.5 variants are being monitoredtracked, but have yet to show significant growth relative other variants.
- Together this diversity suggests steady evolution against general population immunity with no indications of a variant driven wave of COVID-19 infections.
- As of 2024-11-24, there were X samples from MM/DD/YYYY - MM/DD/YYYY, some comment on trend
- Some text here about image one. There is this variant that's here
- Some text about image two
- Image 3 has this
- Findings from a site's analysis of national data

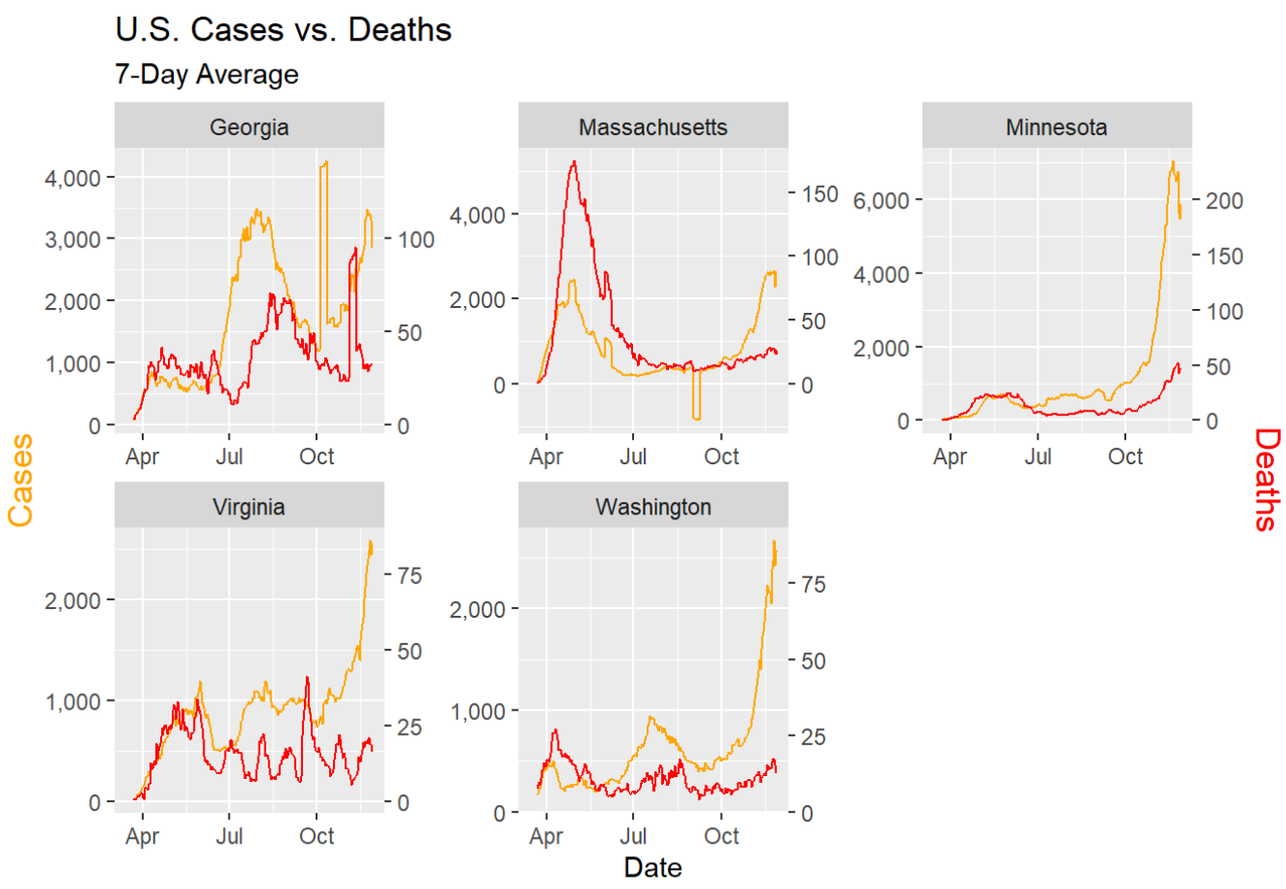


Figure 2: From the New York Times: A couple of observations are obvious. First when cases start to rise, deaths follow with a lag. Second, we have had three spikes in cases so far and in each successive instance the mortality has risen by a smaller amount. This suggests that, thankfully, we are getting better at treating this disease. It is NOT a function of increased testing because positivity rates have not been falling.


Figure 1: Proportion of variants by year.

```
        Date Variant Proportion Count
1 2023-01-01   Alpha  0.3000000    30
2 2023-01-01   Delta  0.2979798    30
3 2023-01-01 Omicron  0.2959596    30
4 2023-01-02   Alpha  0.2939394    29
5 2023-01-02   Delta  0.2919192    29
6 2023-01-02 Omicron  0.2898990    29
```

```
# weights:  9 (4 variable)
initial  value 10986.122887
final  value 10985.946043
converged
```

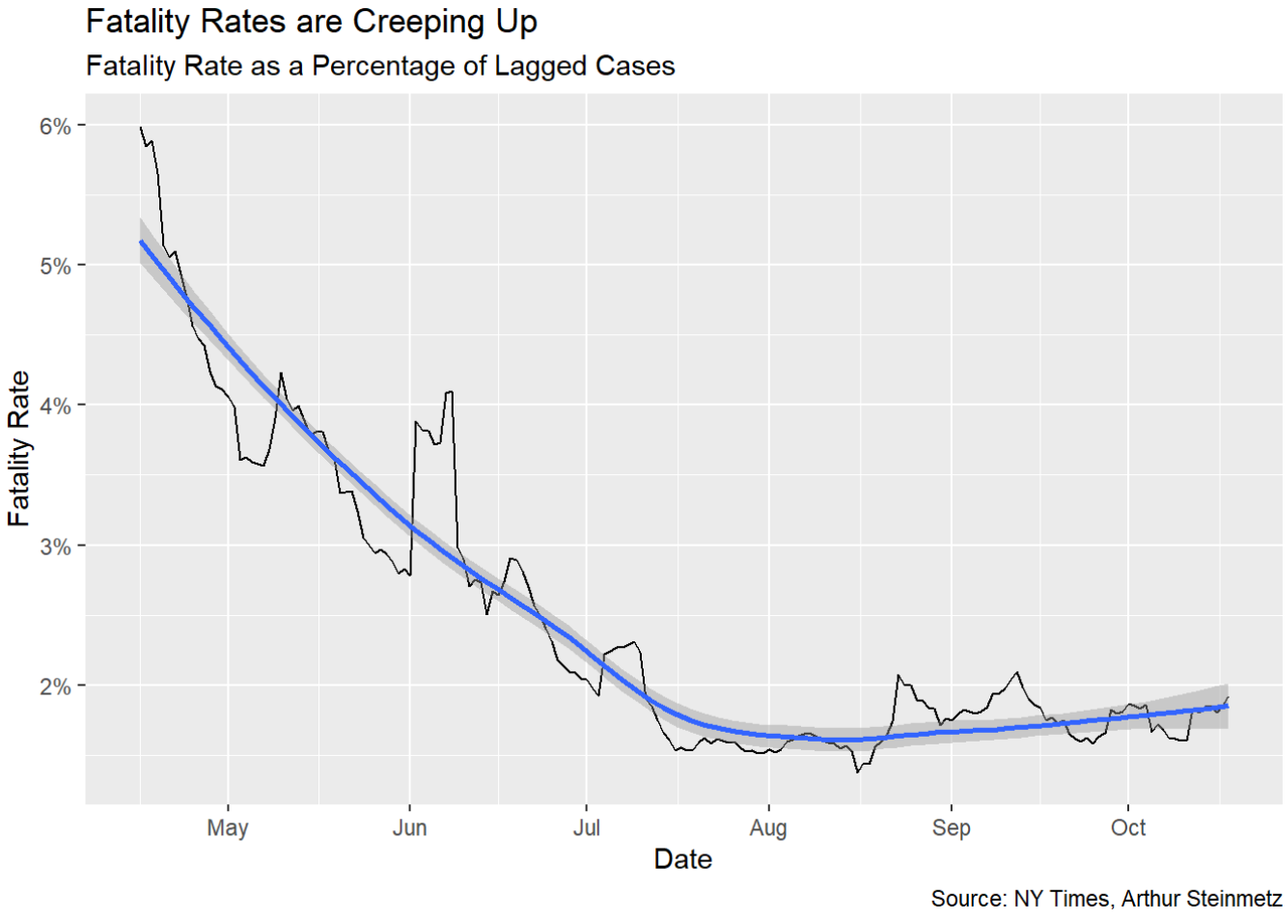


Figure 3: COVID-19 fatalities, outputs from New York Times modeling.

## Citations

This is a simple placeholder for the manuscript's main document [1].

Figure 1 code source

Figure 2 code source

Figure 3 code source

main article code source

## Bibliography

[1] D. E. Knuth, “Literate Programming”, *Comput. J.*, vol. 27, no. 2, p. 97, May 1984, doi: 10.1093/comjnl/27.2.97.