

COVID-19 Update

Dr Mark Cunningham-Hill

Medical Director NEBGH

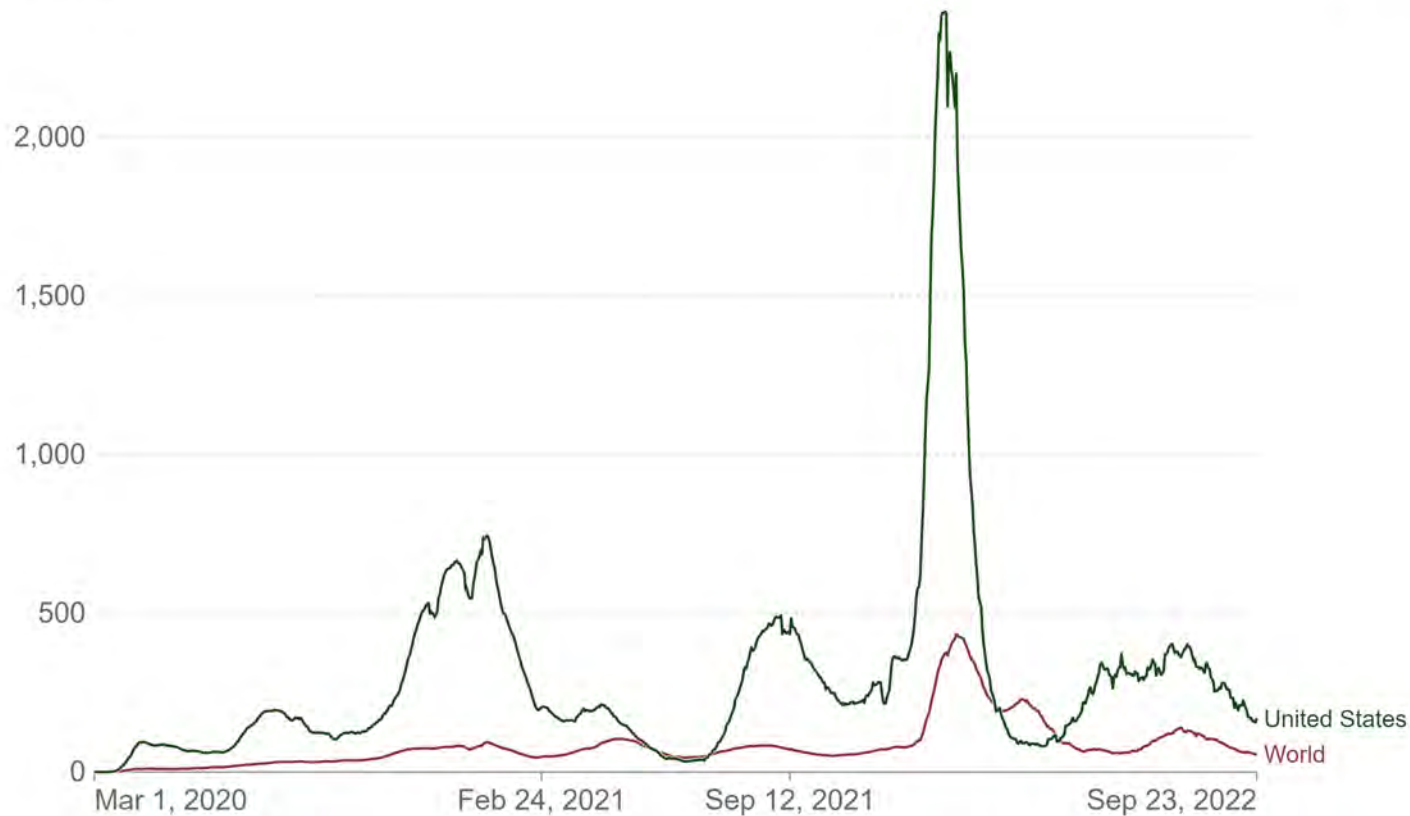
Monday, September 26th, 2022



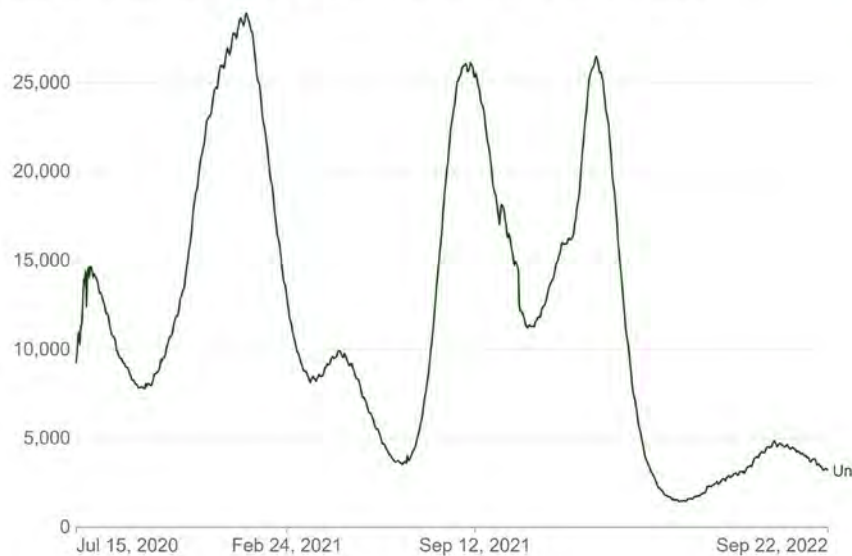
*“Dad, I made a list of things you promised to do
for me once the pandemic is over.”*

Daily new confirmed COVID-19 cases per million people

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.



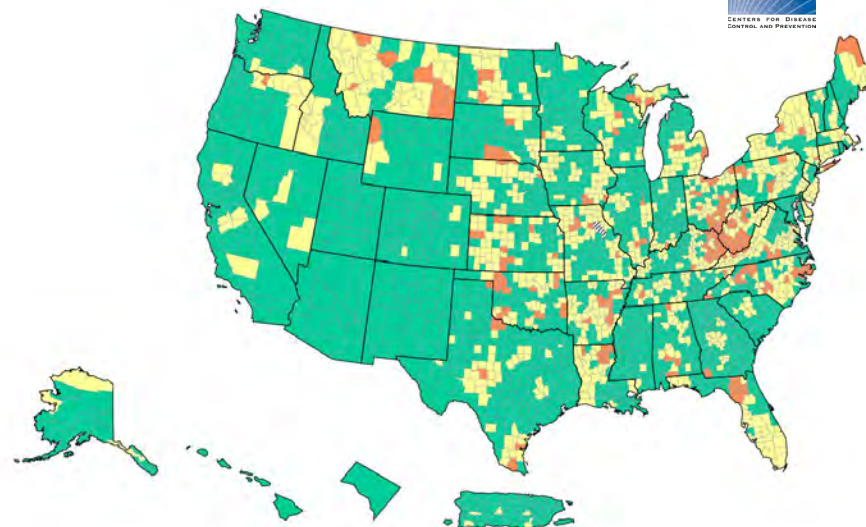
Number of COVID-19 patients in intensive care (ICU)



Source: Official data collated by Our World in Data

Note: For countries where the number of ICU patients is not reported, we display the closest metric (patients ventilated or in critical condition).

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COVID-19 Community Levels in US by County

	Total	Percent	% Change
High	226	7.02%	- 6.73%
Medium	1006	31.24%	- 4.66%
Low	1988	61.74%	11.38%

“It’s over when people decide that it’s over. ... And most people seem to have decided it’s over”

John Barry

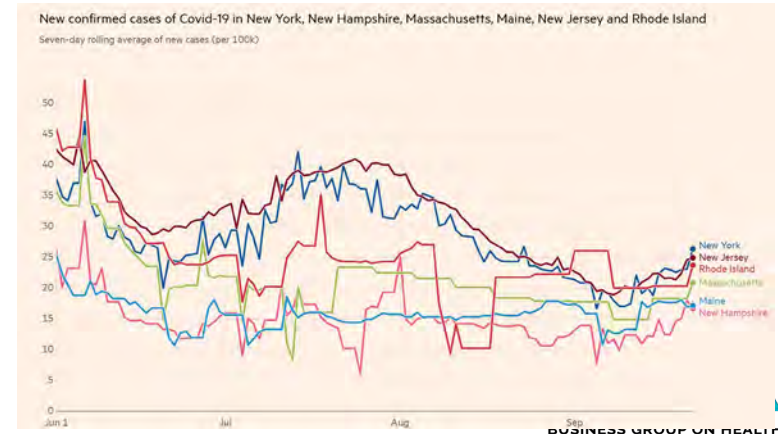
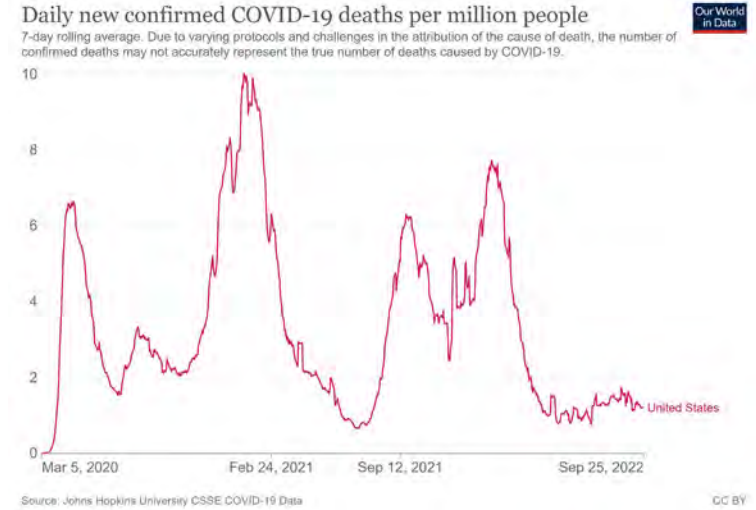
author of “The Great Influenza,” a history of the 1918 Spanish flu

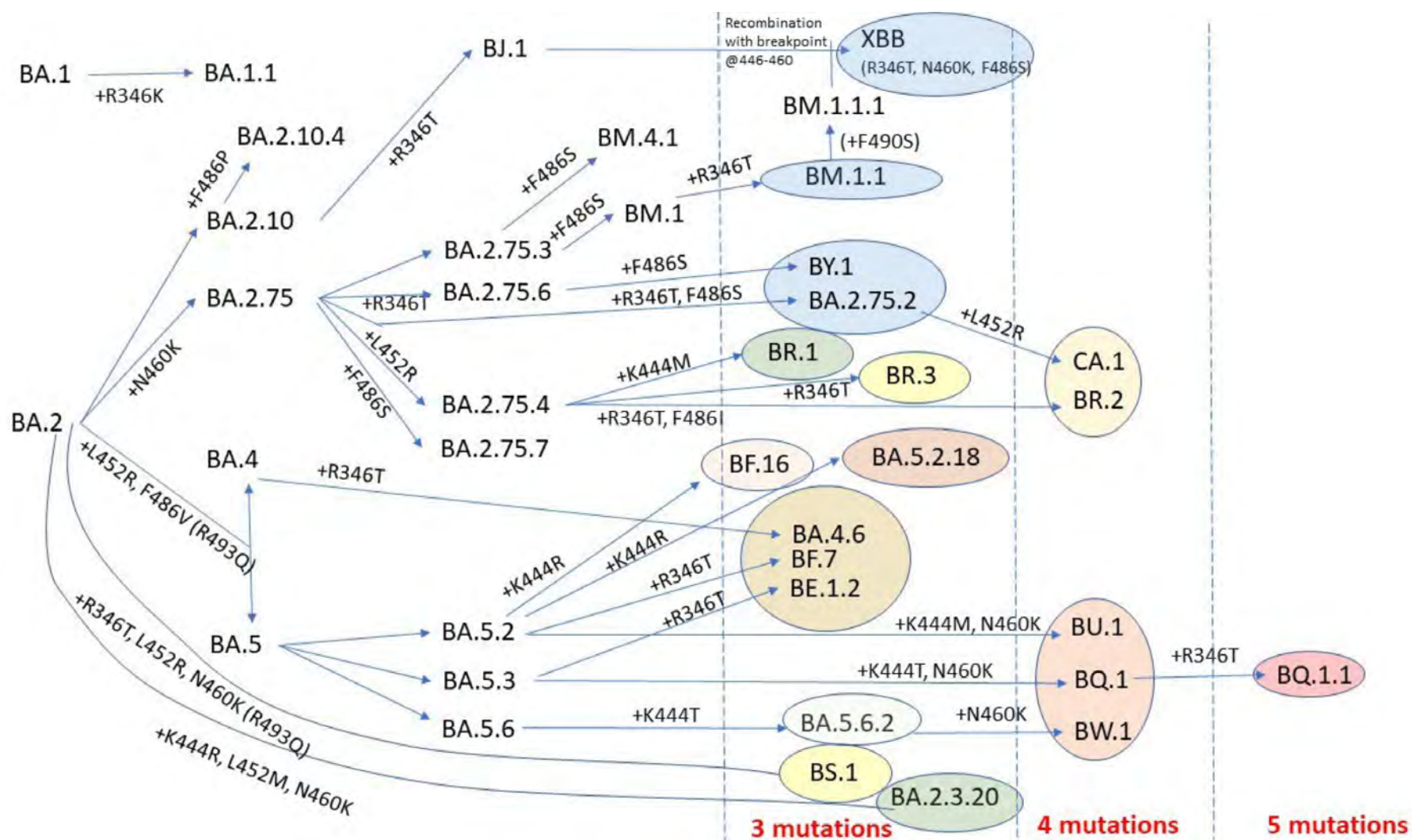


**While many people have finished with
the virus has the virus finished with
us?**

Not quite yet!

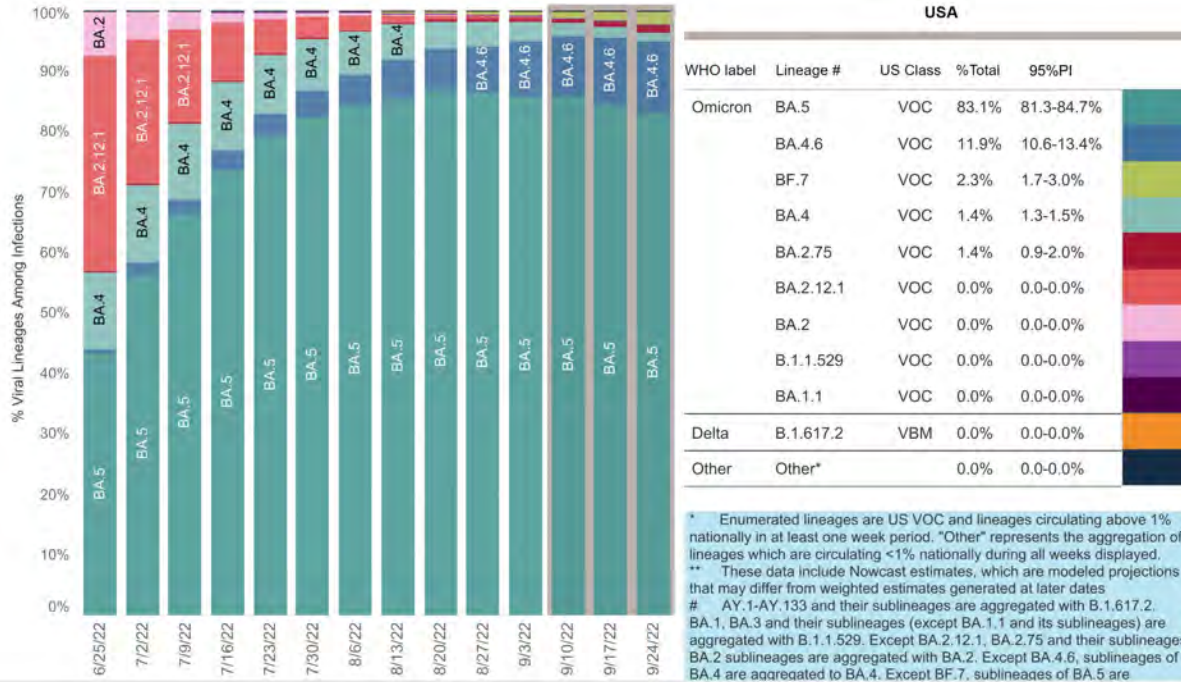
- Plateaued at around 400 deaths per day –
 - 4th leading cause of death
 - 2x worse than a bad influenza season
- While cases in US are declining 21 states have had increasing numbers over the last 14 days – especially in the NE
- New variants





New Variants

- There are lots out there – of most interest are BA.2.75.2, BF.7, BA.4.6, and BQ.1.1



CDC Region 2 (NY) – BA.4.6, BF.7, BA.2.75

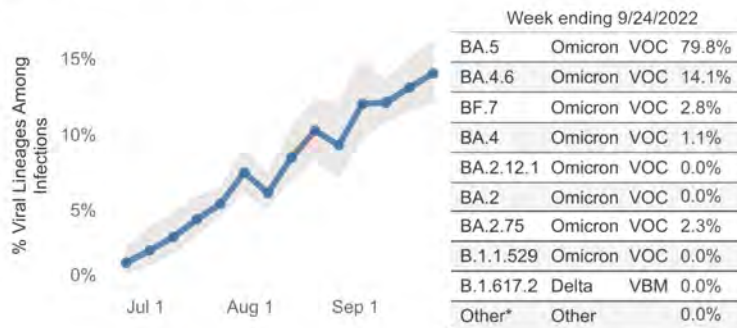
Region 2 BA.4.6 (Omicron):

Percent Share in the selected week: 14.1% (Colored line in the line chart below)

95%PI in the selected week: 12.2-16.2% (Grey shaded area in the line chart below)

Nowcast for weeks ending 2022-09-10, 2022-09-17 and 2022-09-24:

These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates



Region 2 BA.2.75 (Omicron):

Percent Share in the selected week: 2.3% (Colored line in the line chart below)

95%PI in the selected week: 1.6-3.2% (Grey shaded area in the line chart below)

Nowcast for weeks ending 2022-09-10, 2022-09-17 and 2022-09-24:

These data include Nowcast estimates, which are modeled projections that may differ from weighted estimates generated at later dates



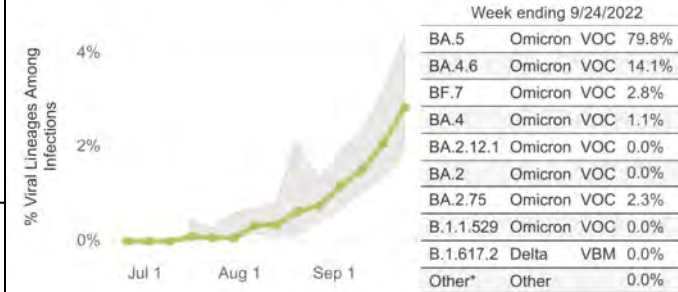
Region 2 BF.7 (Omicron):

Percent Share in the selected week: 2.8% (Colored line in the line chart below)

95%PI in the selected week: 1.8-4.4% (Grey shaded area in the line chart below)

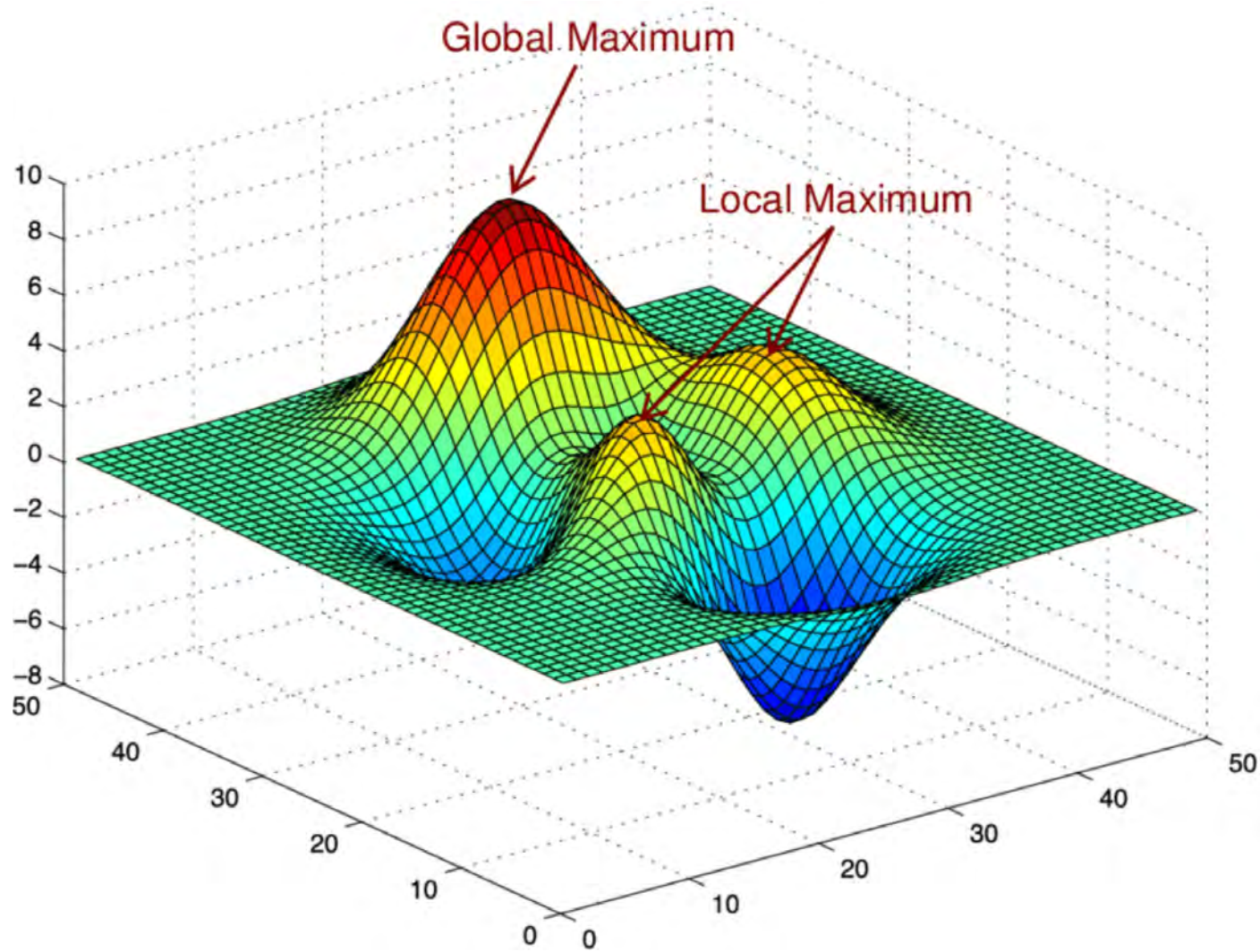
Nowcast for weeks ending 2022-09-10, 2022-09-17 and 2022-09-24:

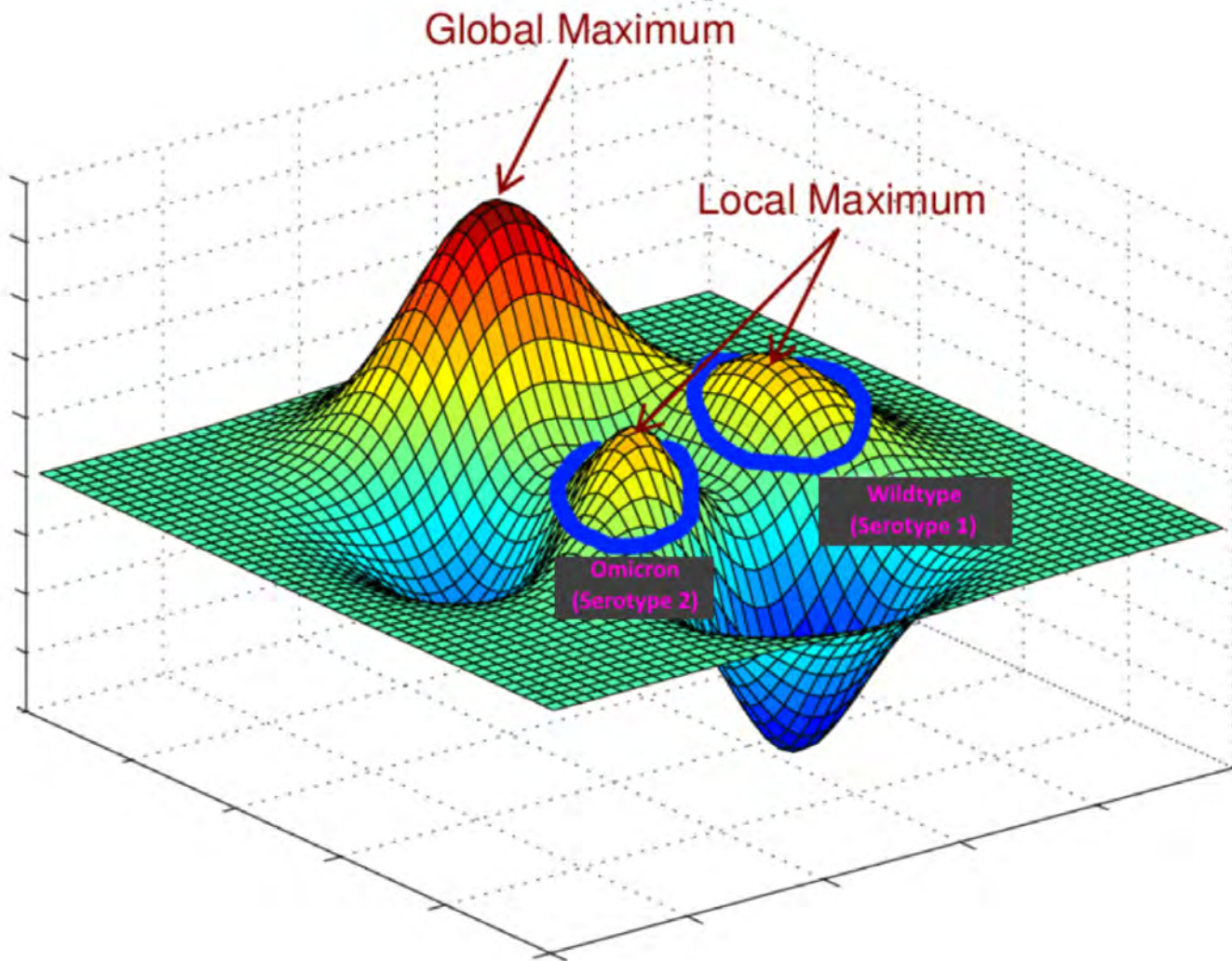
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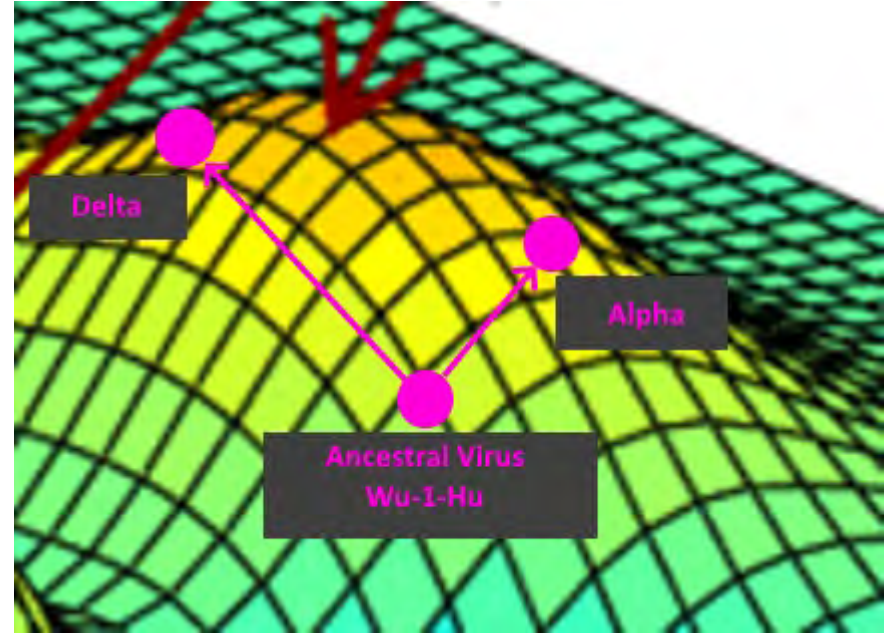
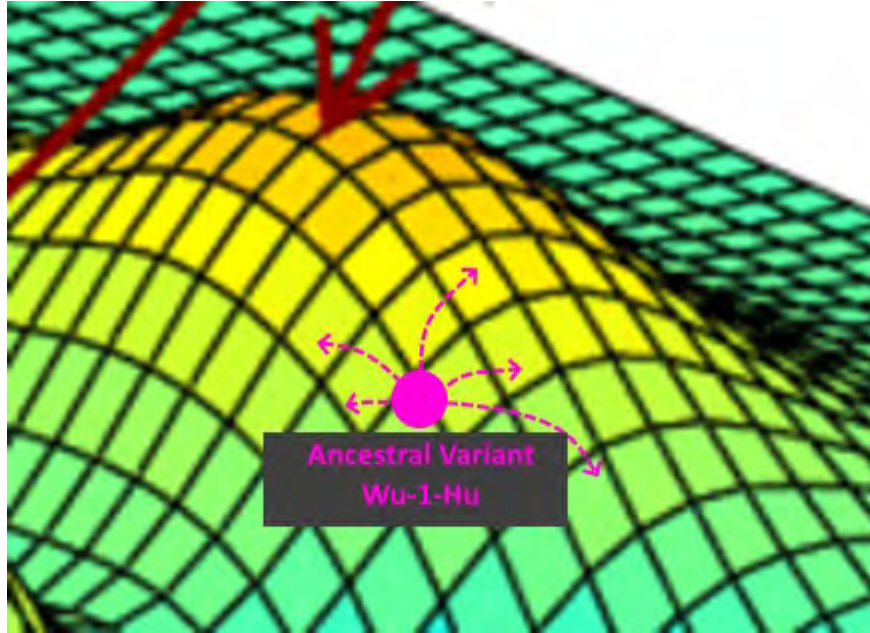


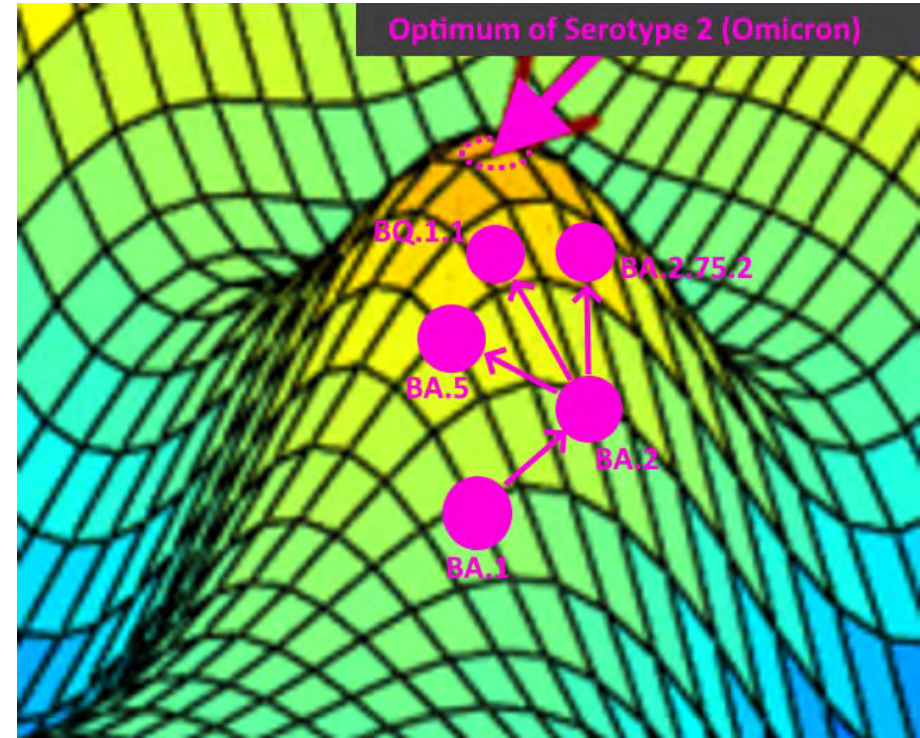
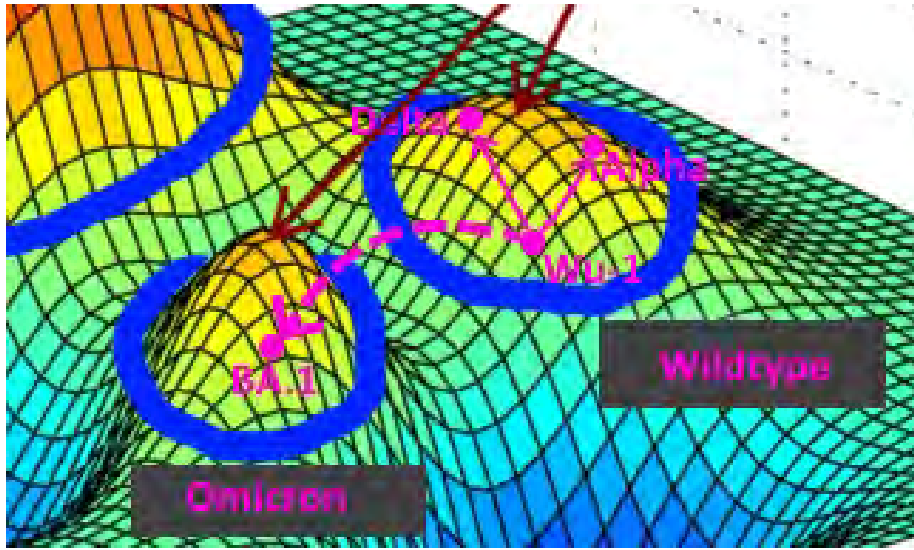
New variants

- Highly infectious
- BA.2.75.2 and BQ.1.1 are the most antibody-evasive convergent variants tested
- Treatment options impacted:
 - BQ.1.1 escapes Evusheld and bebtelovimab, making all clinically available antibody drugs ineffective
 - BA.2.75.2 escapes all current MAB treatments

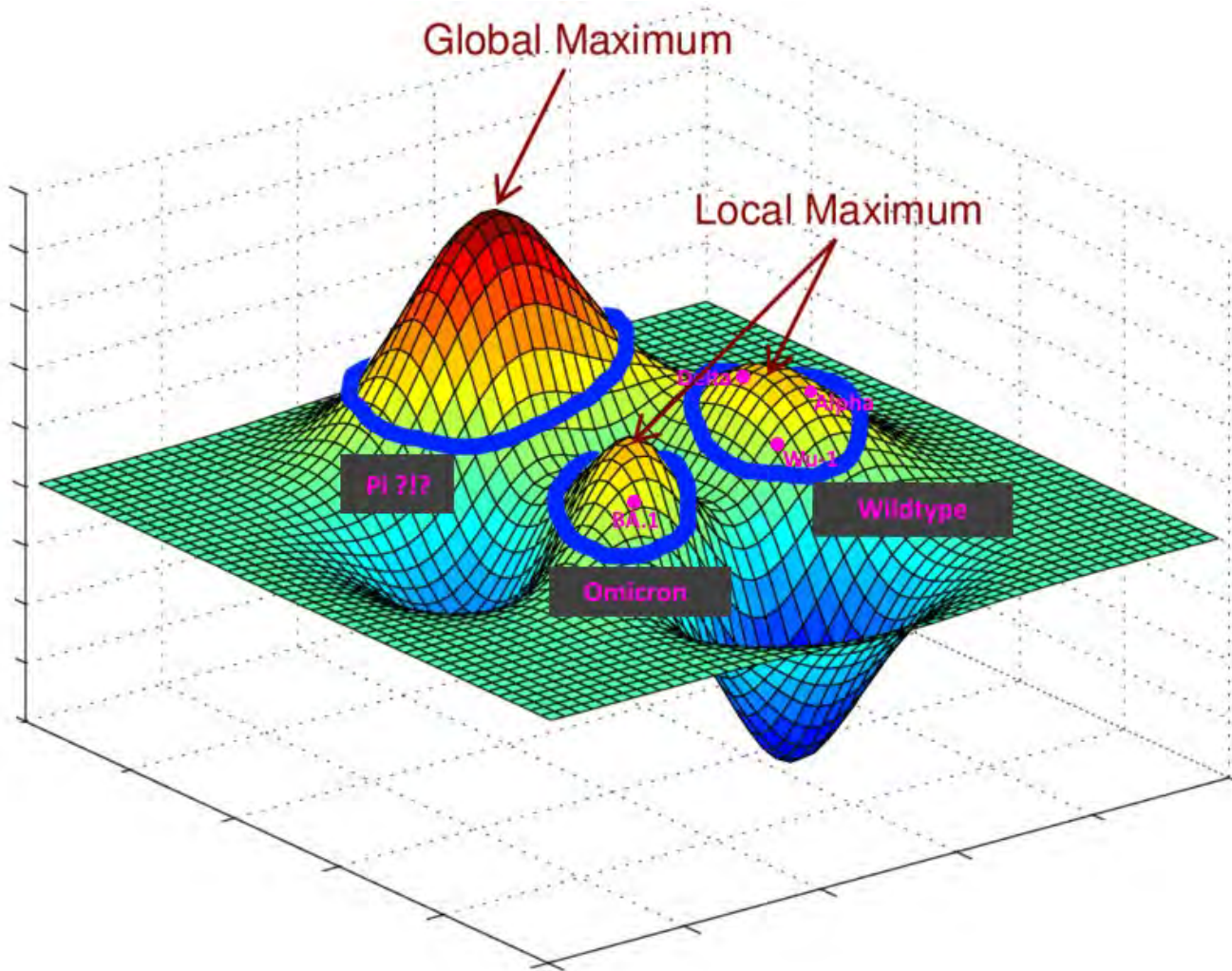


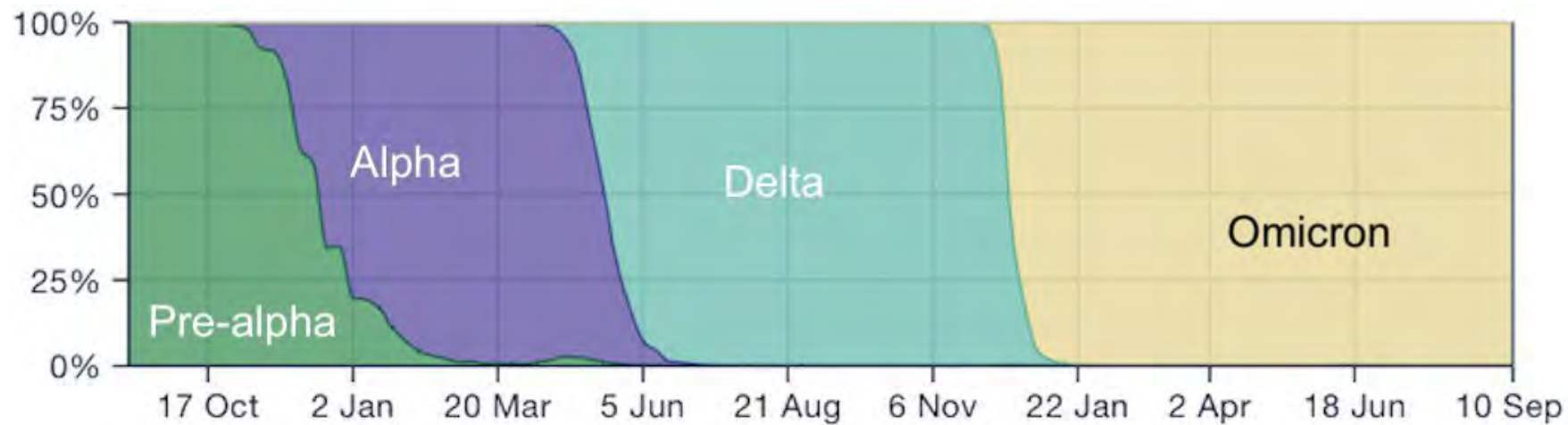






Convergence - the fewer point mutations we are away from reaching the absolute peak fitness of the serotype omicron, the more frequently the same changes will be observed in newly spreading mutations

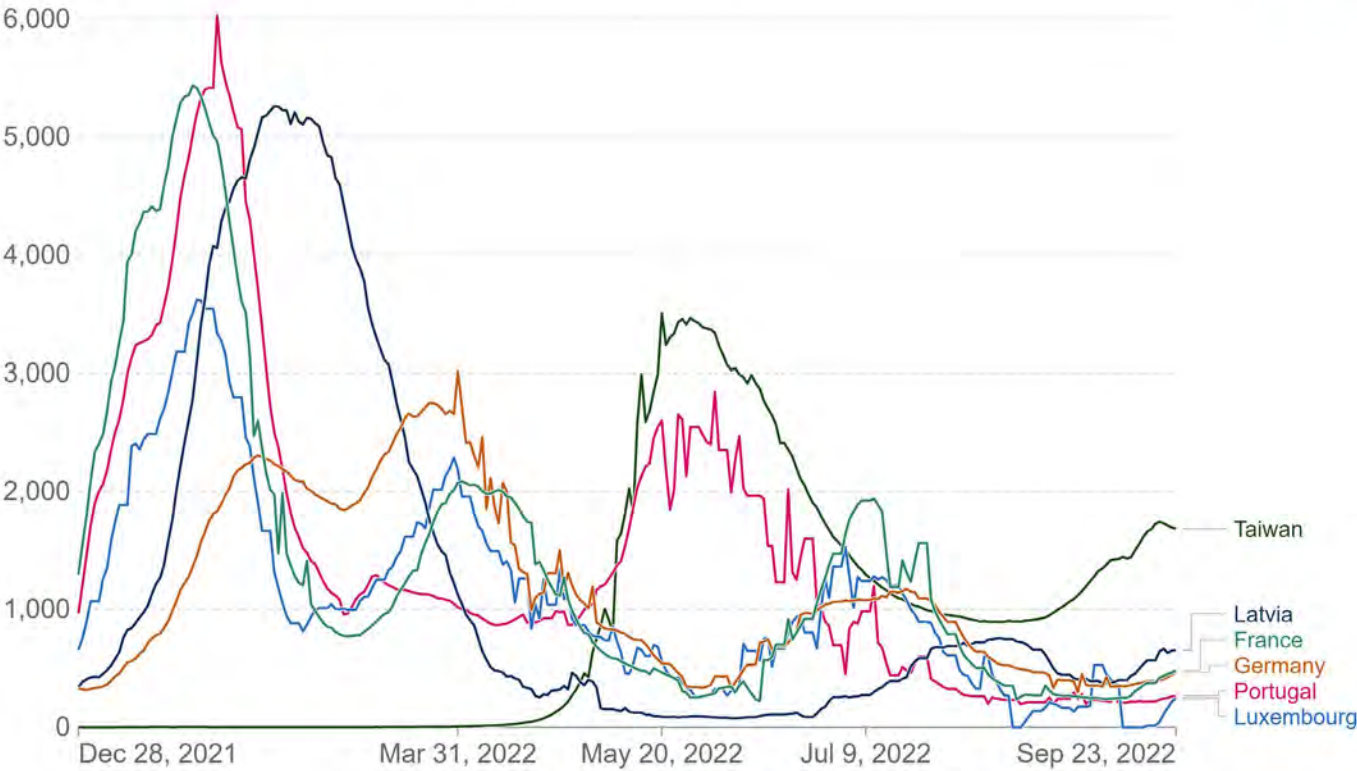




Rest of the World

Daily new confirmed COVID-19 cases per million people

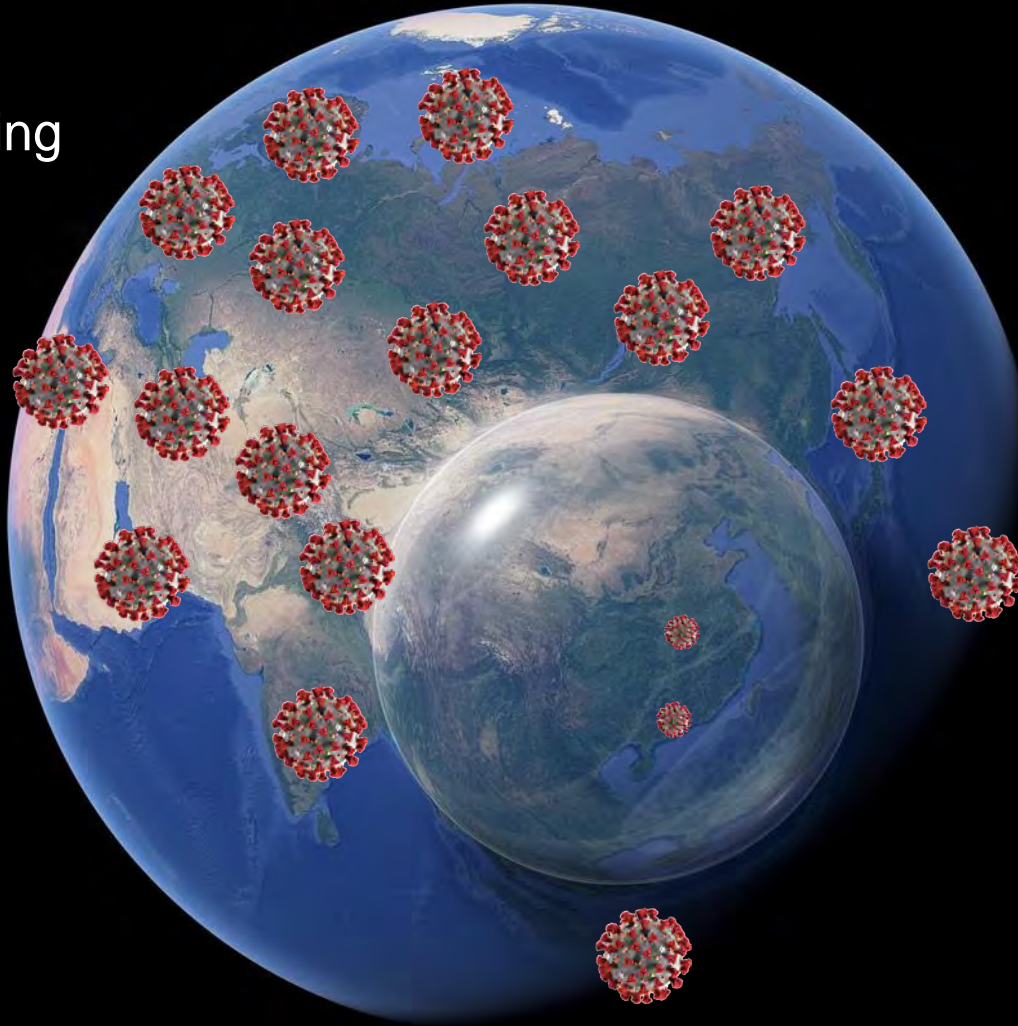
7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.



Source: Johns Hopkins University CSSE COVID-19 Data

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China:
1.4B people living
in a bubble



Summary

- SARS-CoV2 is here to stay
- New variants mean that we may never get true herd immunity - As we adapt, so does the virus
- So, what can we do:
 - We must keep our immunity as high as possible – promoting vaccines, especially the new bivalent boosters – address pandemic fatigue and
 - Minimize reinfections – highly effective ventilation, mask positive culture, flexibility and adaptability if the situation changes e.g., fall/winter surge
 - Protect the vulnerable
 - Keep researching Long COVID
 - New therapeutics, updated vaccines and nasal vaccines
 - Learn from this pandemic so we are better prepared for the next one!,

Questions

Upcoming NEBGH virtual events:

- ~~Sept. 27~~ — Global Benefits and Employee Wellbeing — *to be rescheduled!*
- Oct. 3 - Monday Bi-Weekly COVID-19 Update w/ Dr. Mark
- Oct. 6 — Up and Comers with Deb Mackin
- Oct. 11 - Monday Bi-Weekly COVID-19 Update w/ Dr. Mark (*it's a Tuesday!*)
- Nov. 10 — Annual Membership Meeting
- Nov. 17 — Up and Comers with Sandi Stein