

STAY SAFE MN

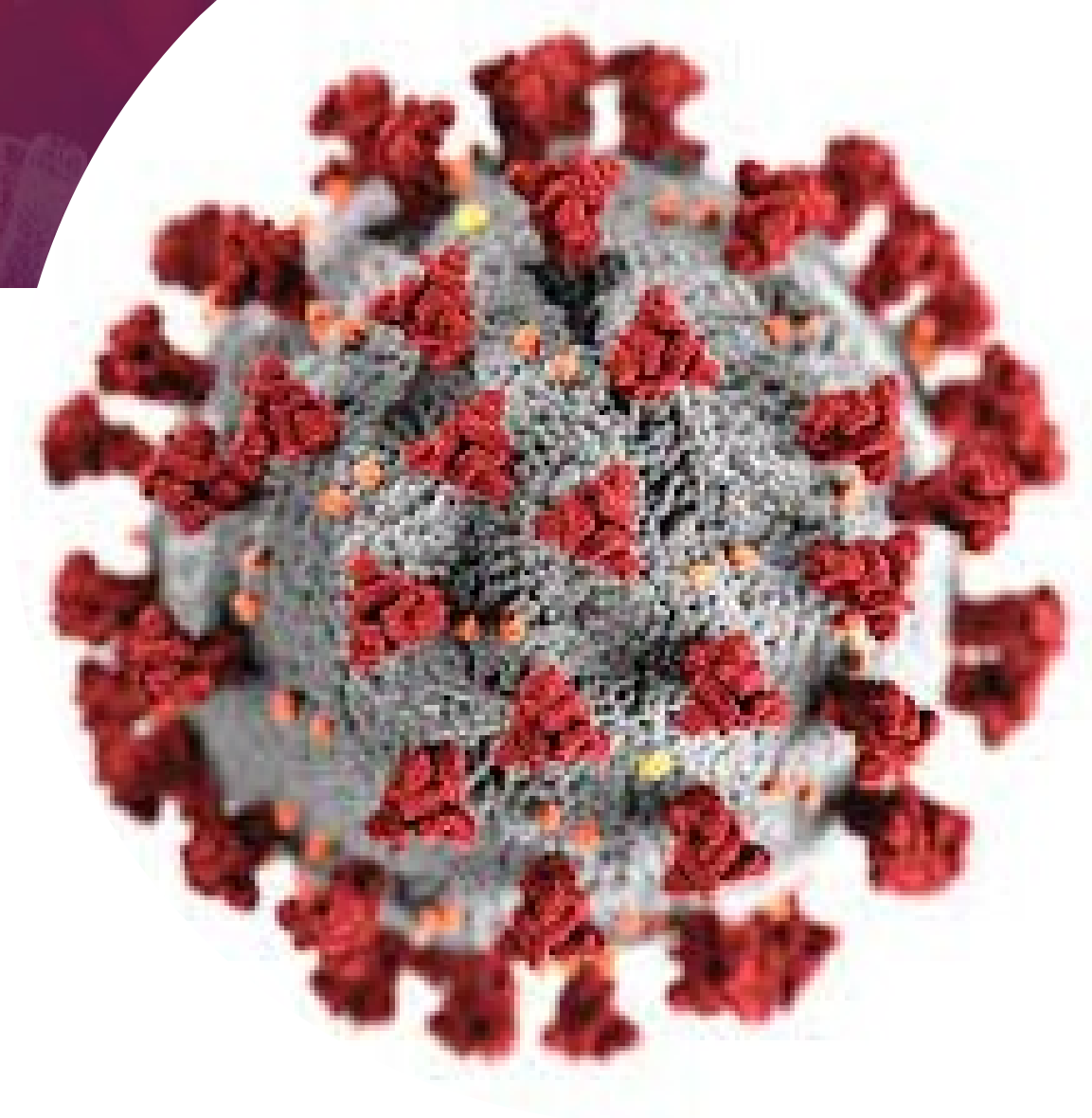
COVID-19 Update

February 2, 2022

mn MINNESOTA

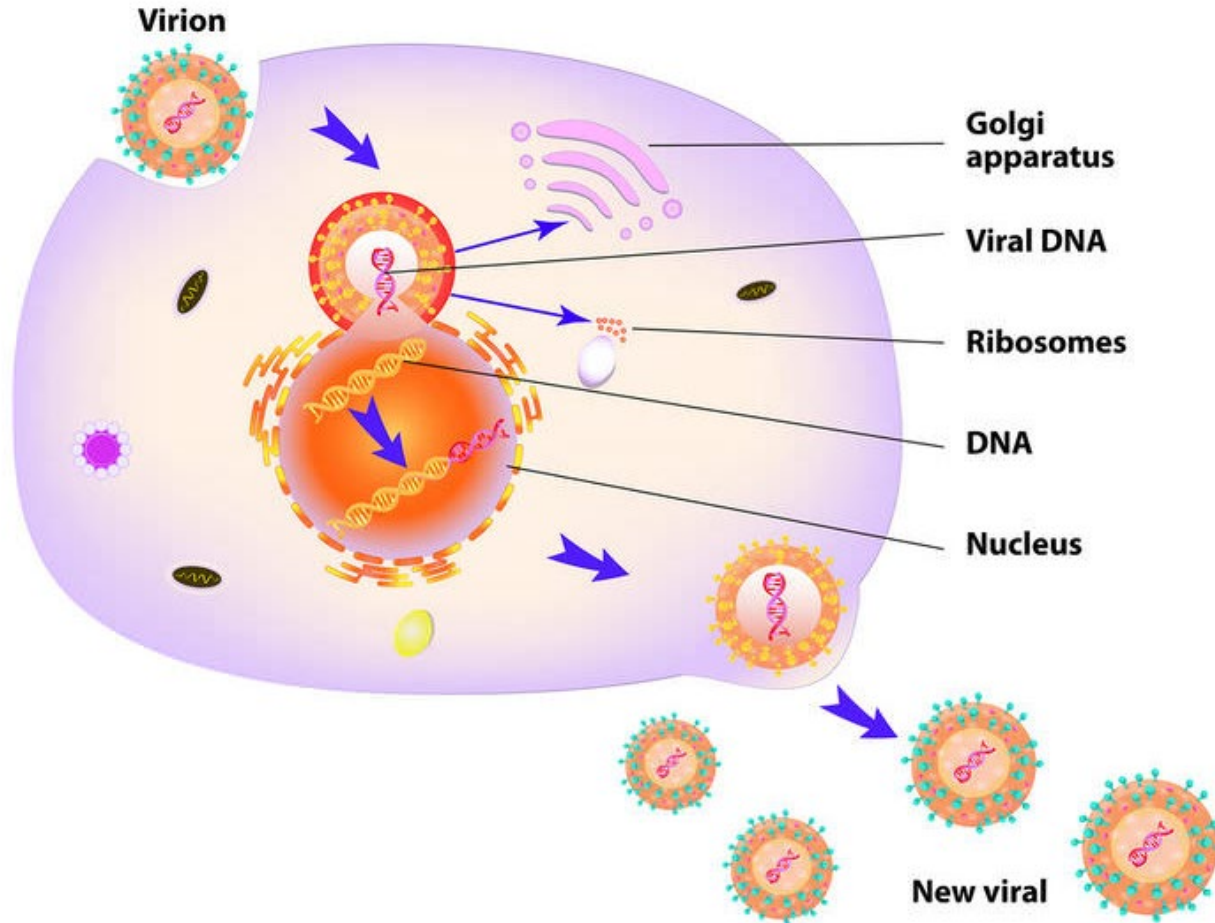
COVID-19 Update

- Virus basics
- Variants
- Minnesota cases and hospitalizations
- Vaccination



Virus Recap

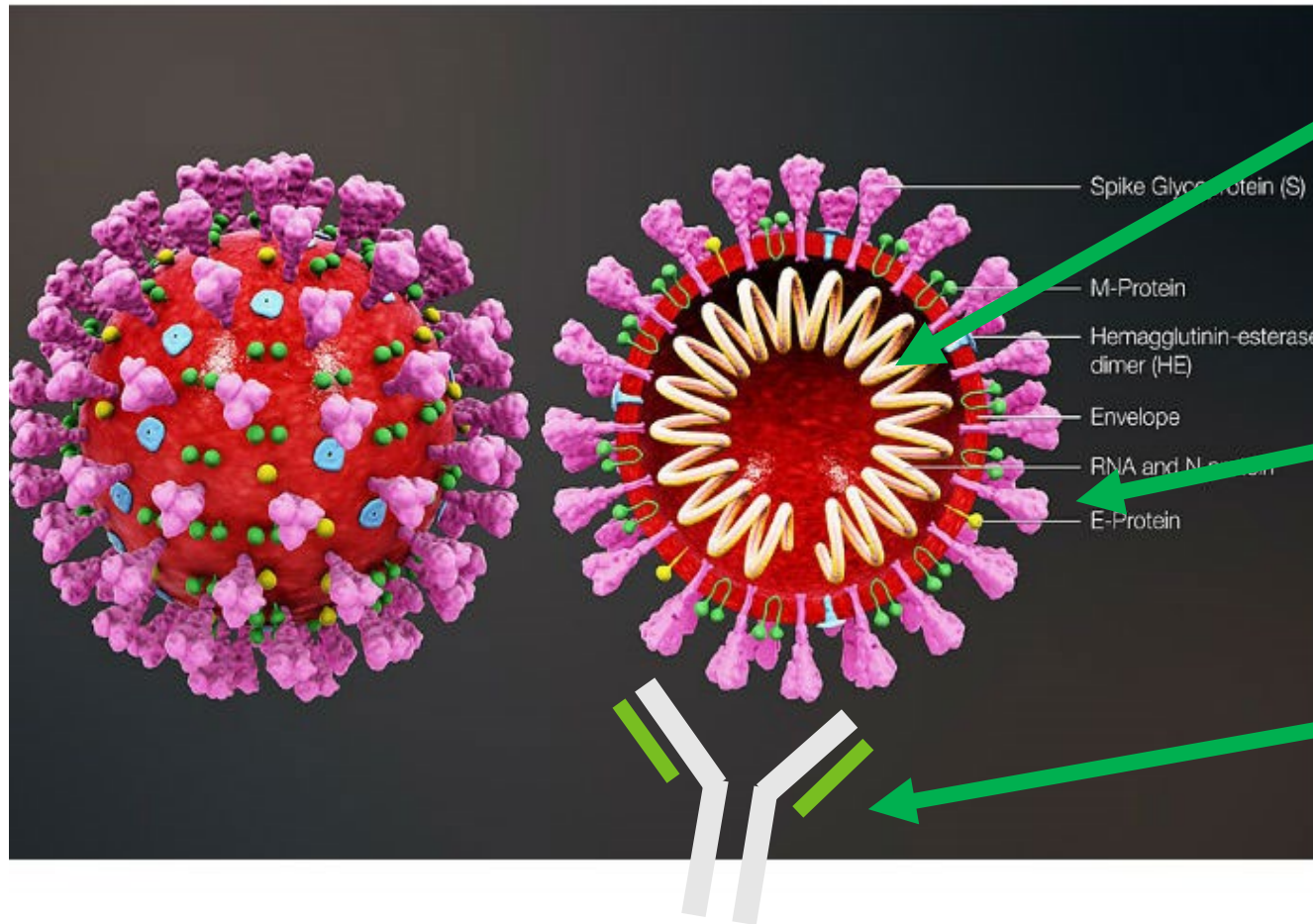
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- Nucleic acid surrounded by protein
- Replicates in other cells
- Viruses are very specific to what type of cell it can infect (SARS-CoV-2 attacks cells with ACE2 receptors – epithelia in respiratory system, intestines and blood vessels)

Types of COVID-19 Tests

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- **Molecular tests (ie, RT-PCR)**

- Viral RNA

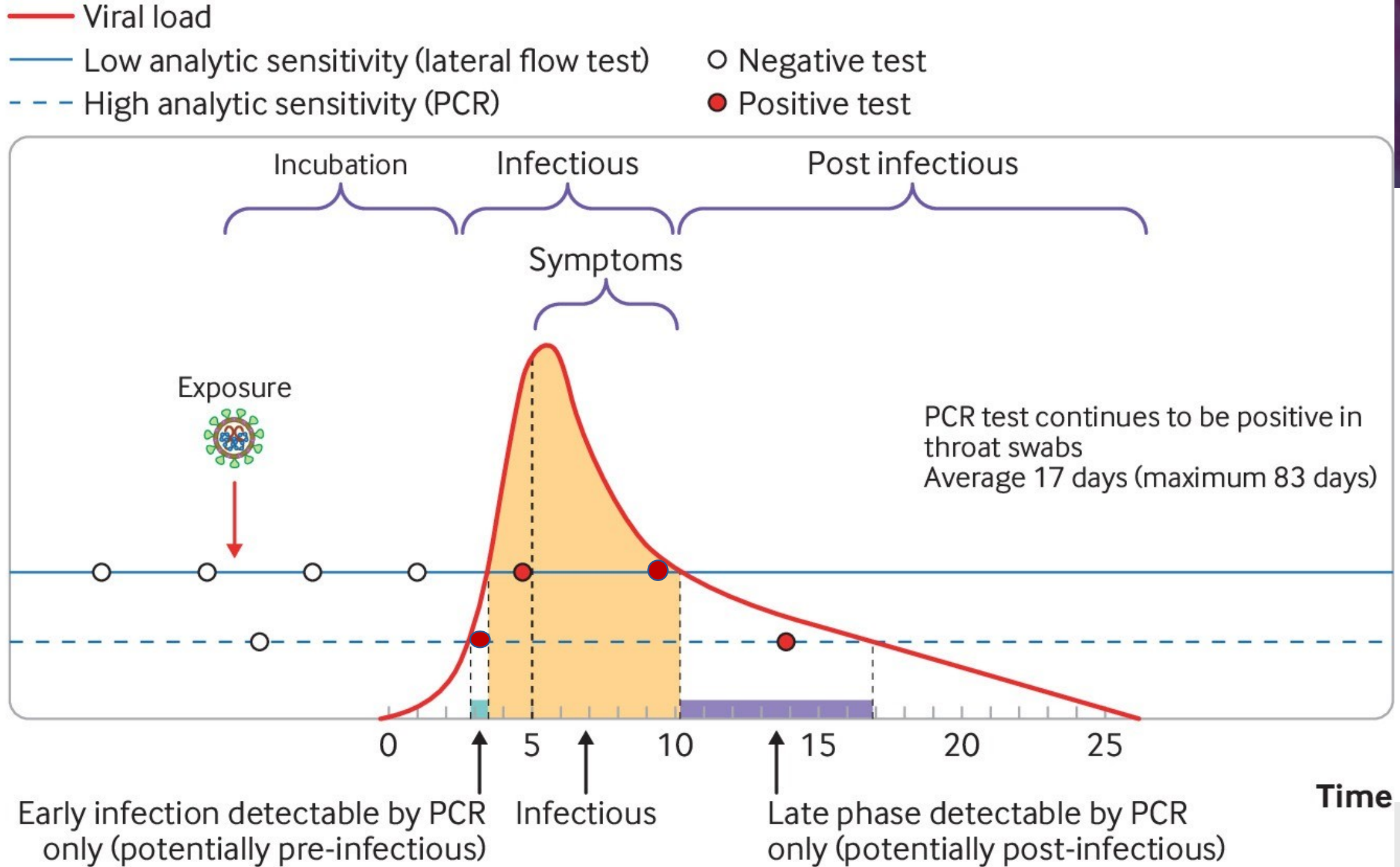
- **Antigen Tests**

- Spike Protein

- **Serologic/Antibody tests**

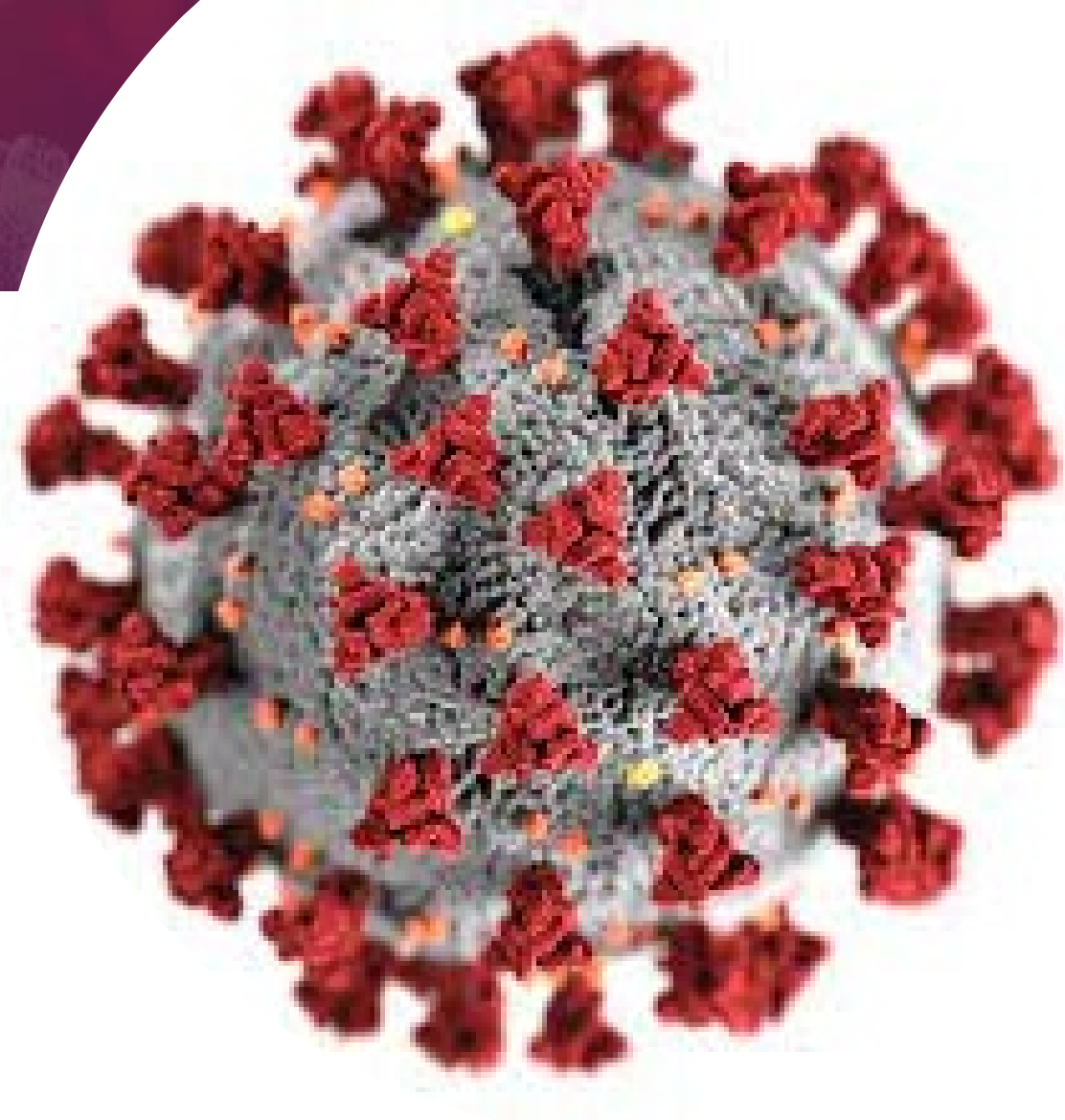
- α -SARS-CoV2 antibodies

SARS-CoV-2 viral load



Viral Mutation

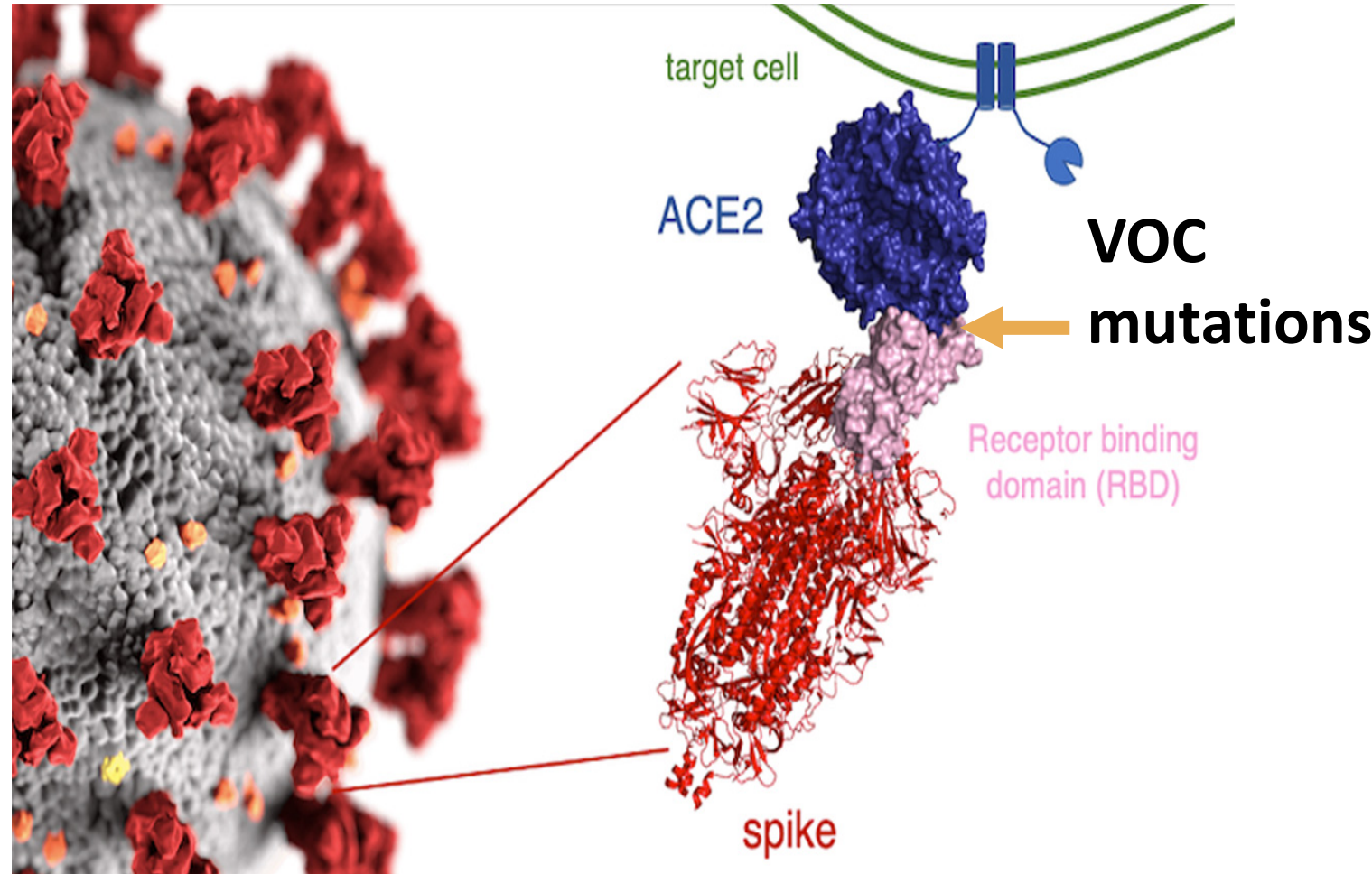
- ALL nucleic replication results in errors
- The more replication, the more errors
- RNA viruses more prone to mutation
- Errors or mutations, that have an ecological advantage survive
 - mutations that don't make a difference may stick around too
- The more infected people the more places virus has to mutate



Why are Variants of Concern (VOCs) concerning?

Have a mutation that could affect

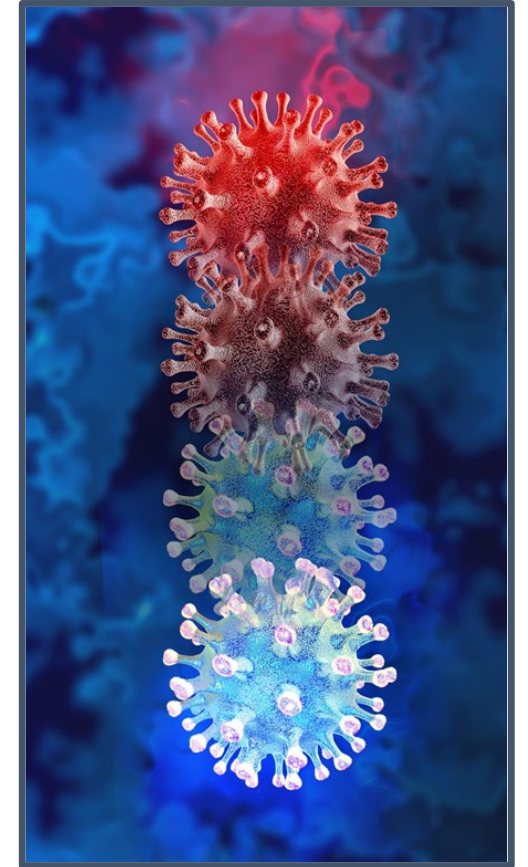
- Transmission
- Disease severity
- Diagnostics
- Therapeutics
- Vaccine



COVID-19 Variants: Delta & Omicron

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- In Sept. 2021, over 95% of variants sequenced were attributable to Delta.
- By mid January 2022, 99% of cases were attributable to Omicron.
- Cases reflected widespread community transmission throughout the state.
- We don't have complete case counts on either variant due to over-the-counter testing.

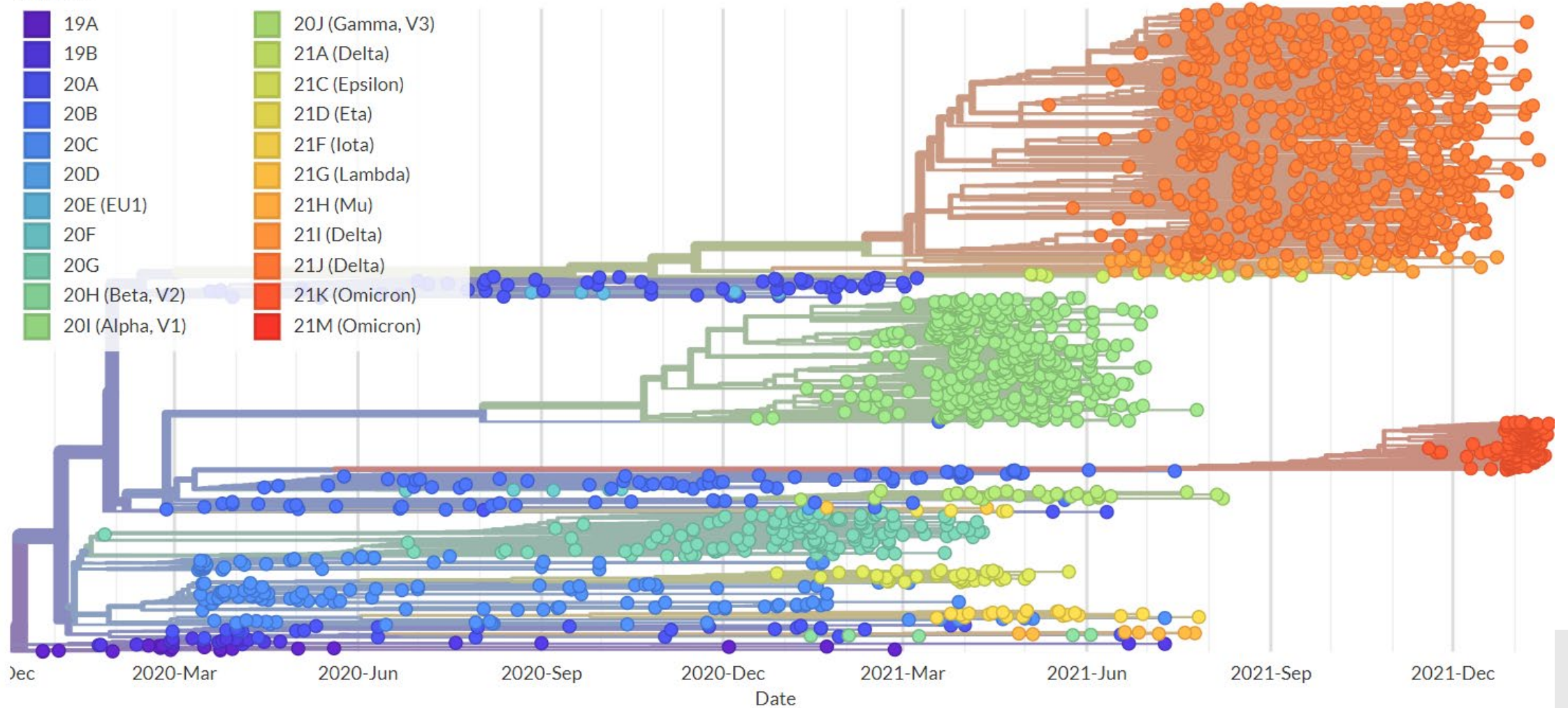


Variant Family Tree

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Phylogeny

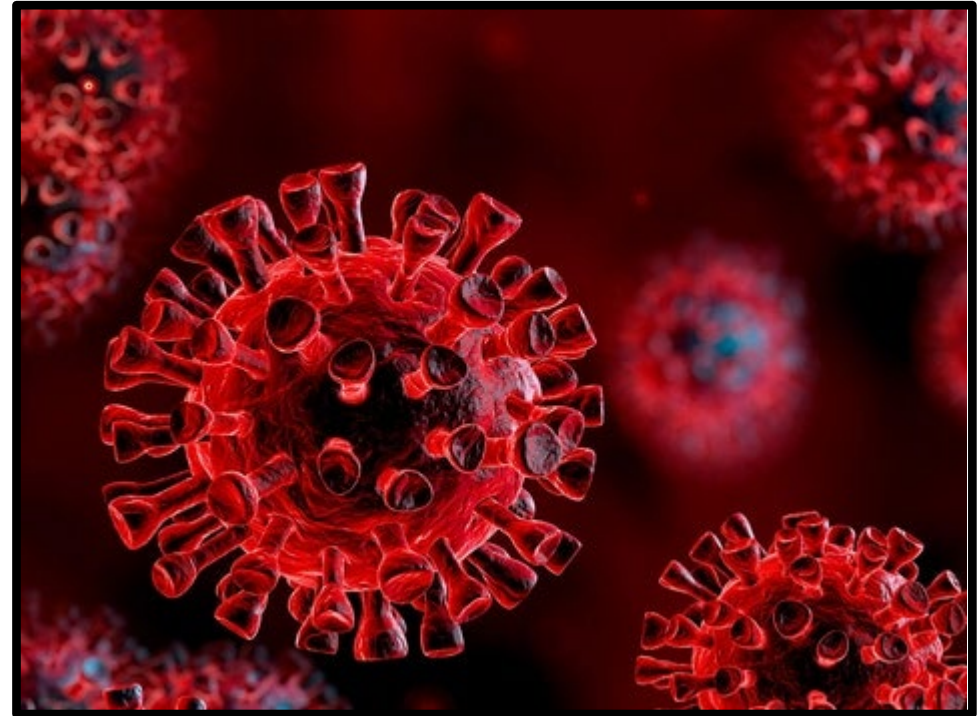
Clade ^



Delta Impact

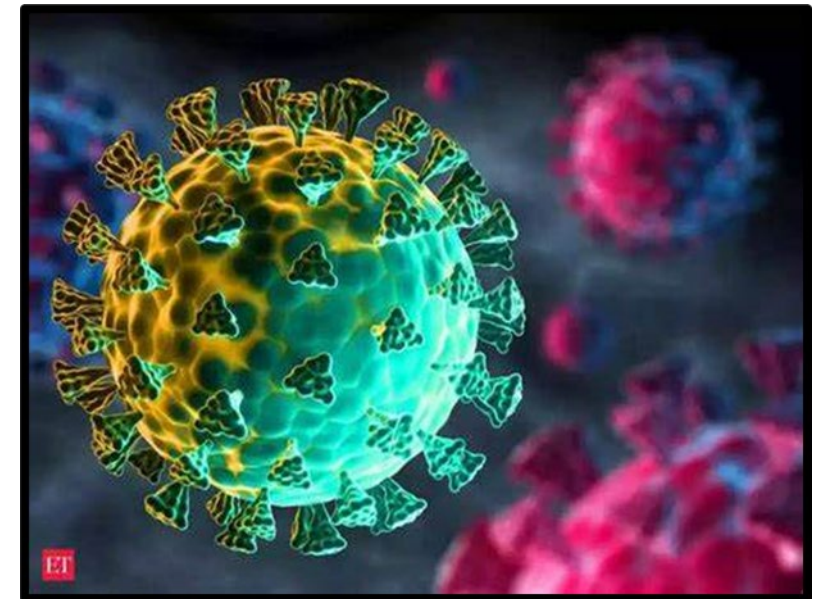
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- Delta became the dominant variant in 8 weeks.
- People infected with Delta had higher viral loads—more virus in their body—than with previous variants.
- Compared with earlier strains, Delta spread more than twice as easily from one person to another.
- Delta circulation resulted in a surge of COVID-19 cases in the unvaccinated with collateral damage to vaccinated
- Hospital capacity at breaking point



Omicron Impact

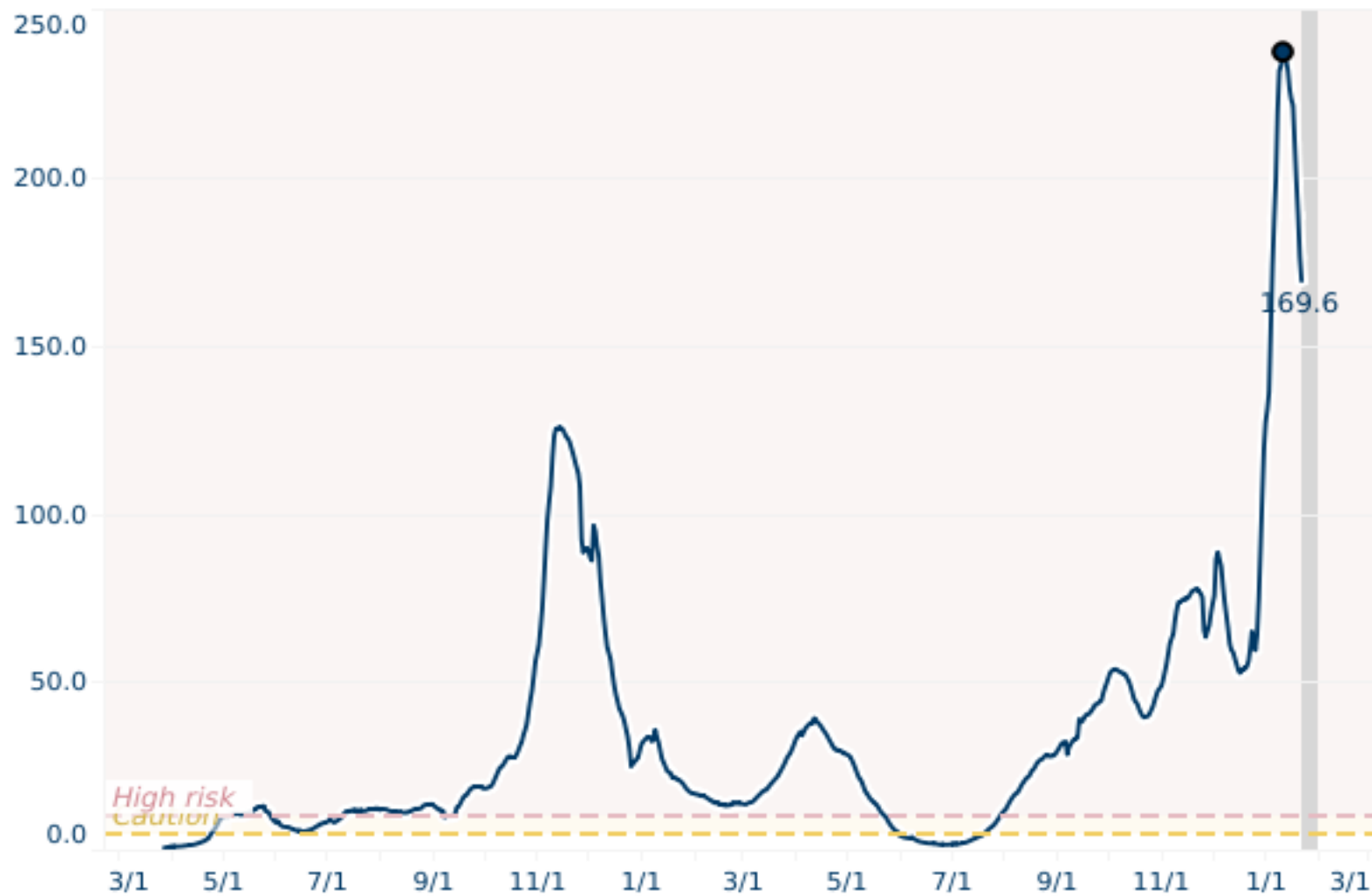
- Omicron became dominant strain in 4 weeks.
- 2x more infectious than Delta,
- Hospitalizations were proportionally less than with Delta.
- Healthcare capacity (acute and long-term care) was stretched at Omicron's onset and worsened.
- Immune evasion – vaccine breakthrough cases and reduced monoclonal therapy.



CASE GROWTH

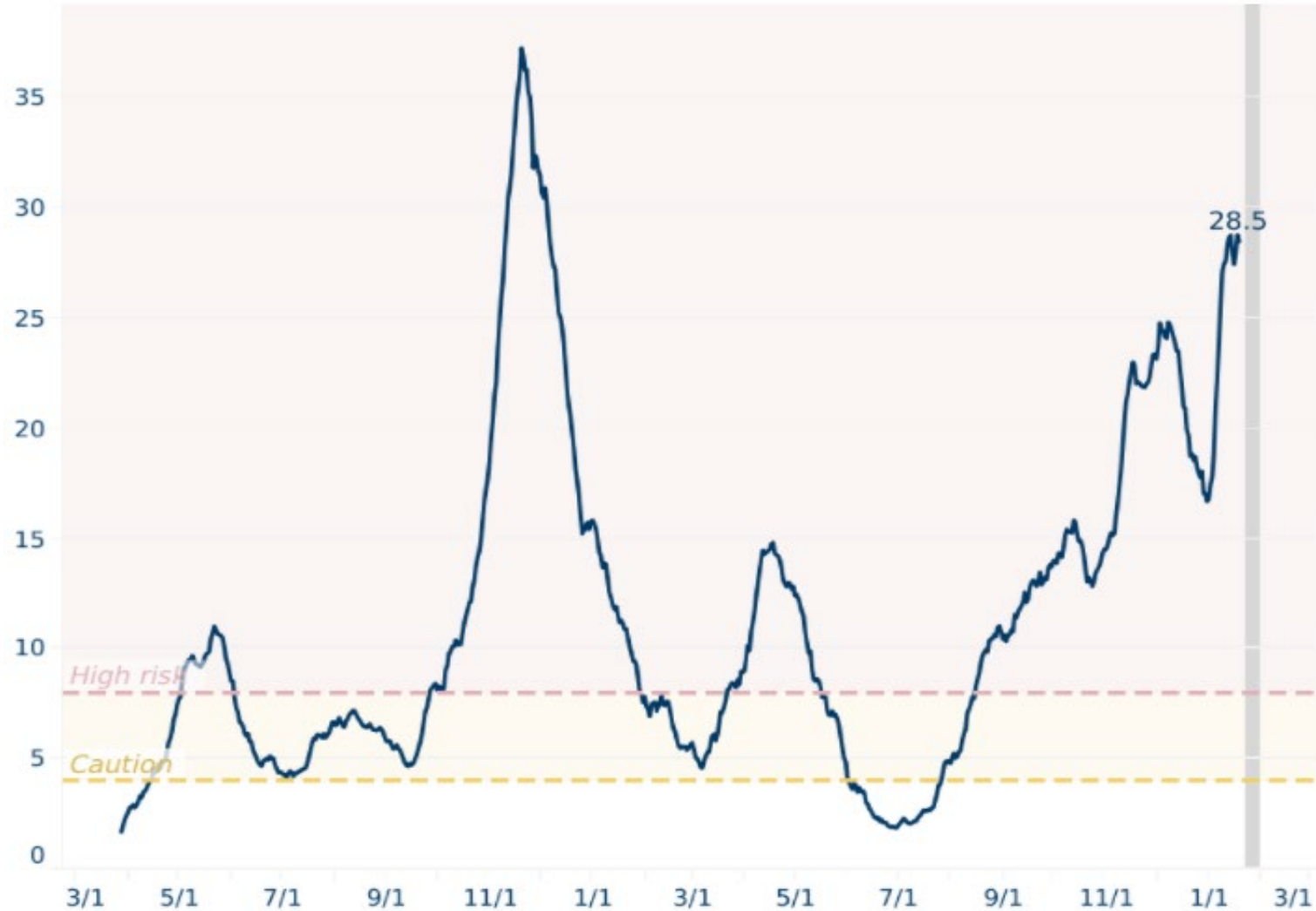
DAILY NEW CASES PER 100,000 RESIDENTS

7-DAY ROLLING AVERAGE



HOSPITALIZATION RATE

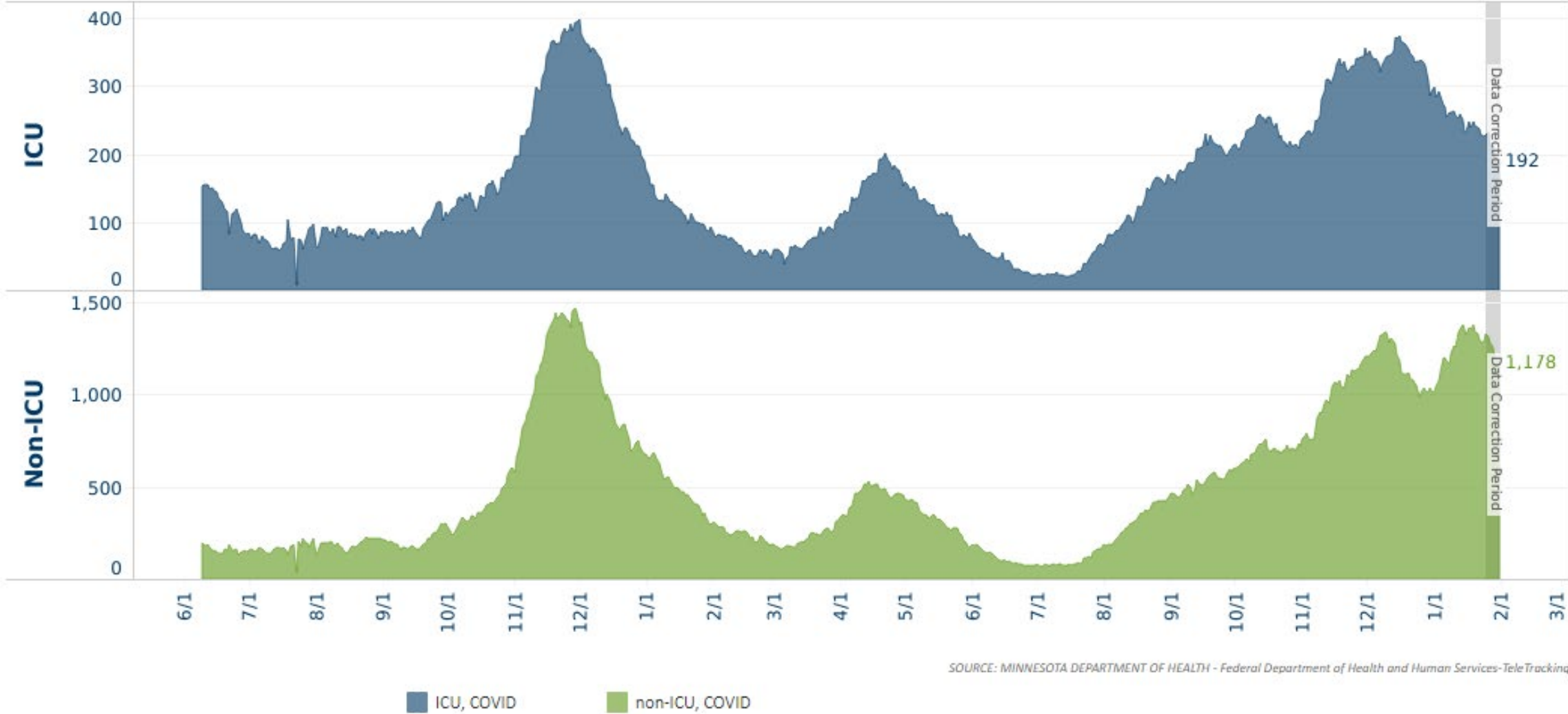
NEW COVID+ HOSPITAL ADMISSIONS PER 100,000 RESIDENTS
WEEKLY | 7-DAY ROLLING AVERAGE



HOSPITAL CAPACITY

ICU AND NON-ICU BEDS IN USE (Adult and Pediatric Patients)

COVID | 6/9 to 1/31 | Minnesota



SOURCE: MINNESOTA DEPARTMENT OF HEALTH - Federal Department of Health and Human Services-TeleTracking

Support for Hospital Capacity

- \$40 million in new funding supported hospital staffing: covering costs for emergency hospital staff, targeting hospitals experiencing staffing shortages due to COVID-19.
- Regulatory relief based on input from hospitals and long-term care providers.
- Four Department of Defense Federal emergency teams provided staff to HCMC, Fairview Southdale and Abbott Northwestern and St. Cloud Hospitals.
- Four nursing home-based alternative care sites for treating non-critical patients opened 108 hospital beds for more critical cases.
- \$50 million in federal American Rescue Plan funding distributed to long-term care facilities to hire and retain employees.
- National Guard Members served as skilled-nursing response teams, providing crisis staffing support at 40 facilities.

- Moderna vaccine received FDA license for people 18 yr. and older.
- Pfizer vaccine has FDA license for 18+ and authorization for people 5 yr. and older.
- Pfizer requested FDA for Emergency Use Authorization of vaccine for children 6 mo. to 5 years.
- J&J has FDA authorization for 18+



Current Vaccination Rates

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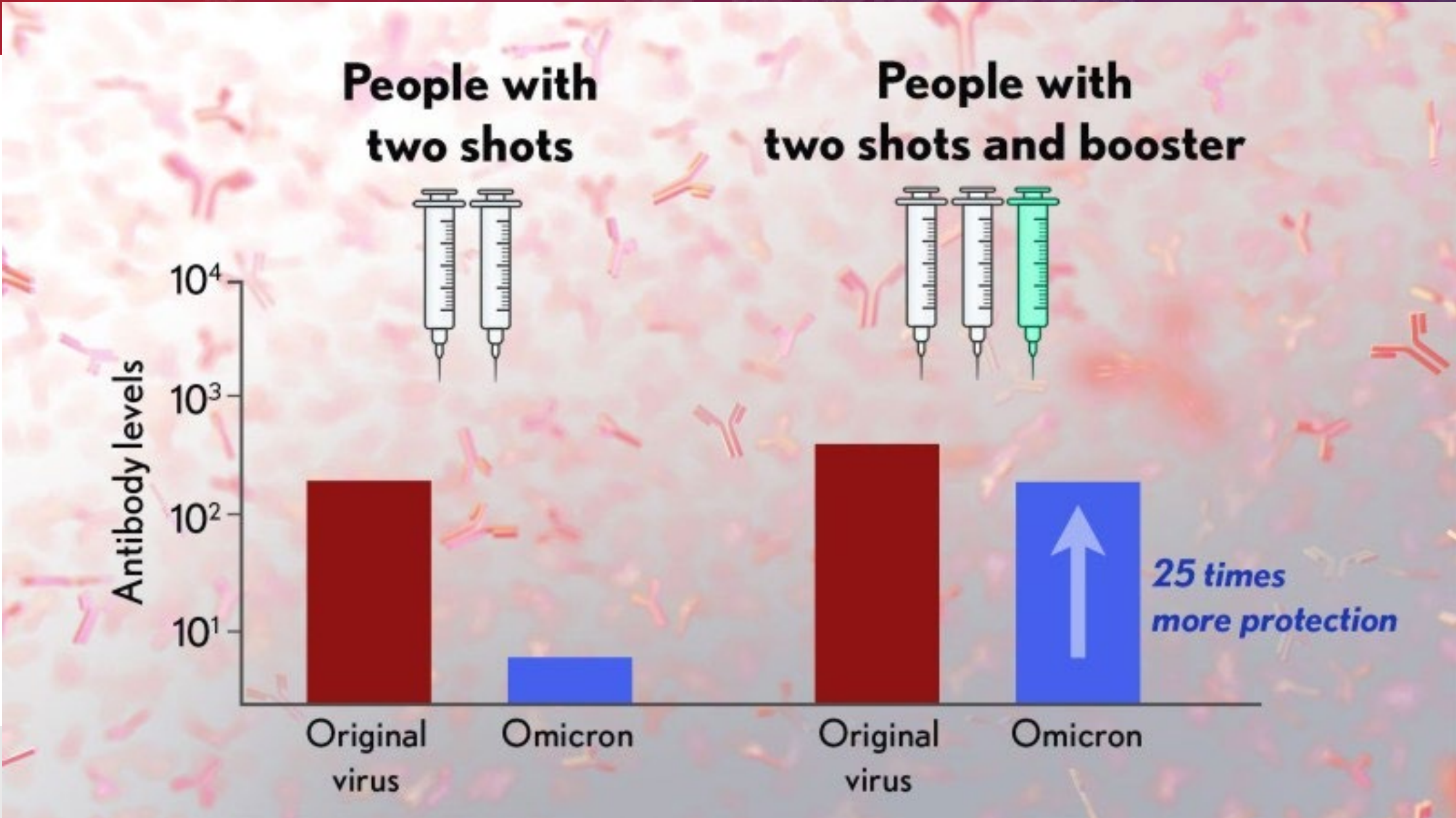
Age Group	People with at least one vaccine dose	Percentage By Age Group	People with completed vaccine series	Percentage By Age Group	People Who Received Additional Dose (Booster)
5+	3,845,821	73.8%	3,601,821	69.1%	2,043,269
Total Population	3,845,821	69.1%	3,601,821	64.7%	



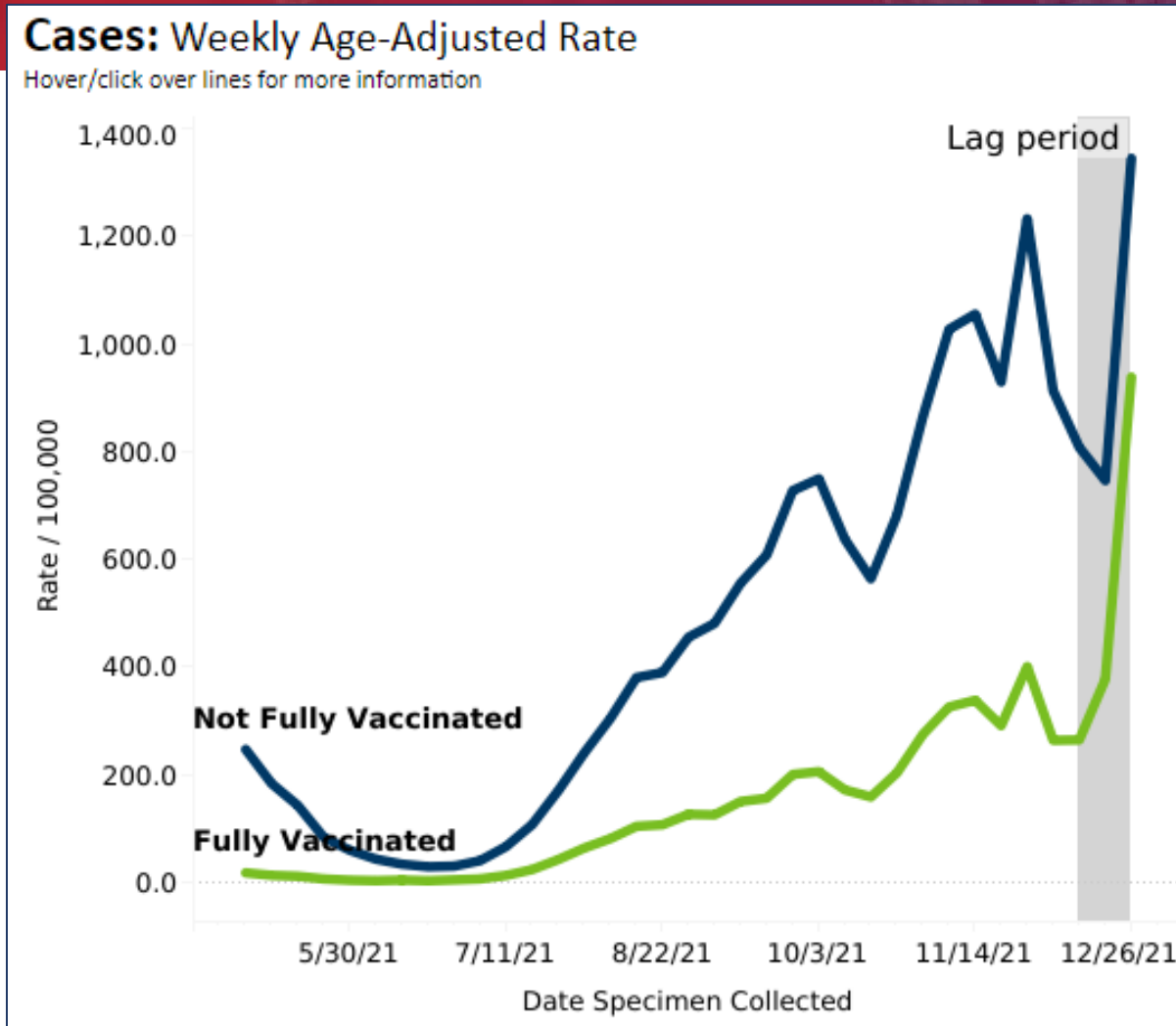
COVID-19
VACCINE

Vaccine protection for Original Virus and Omicron Variant

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Vaccine Breakthrough Data - Cases



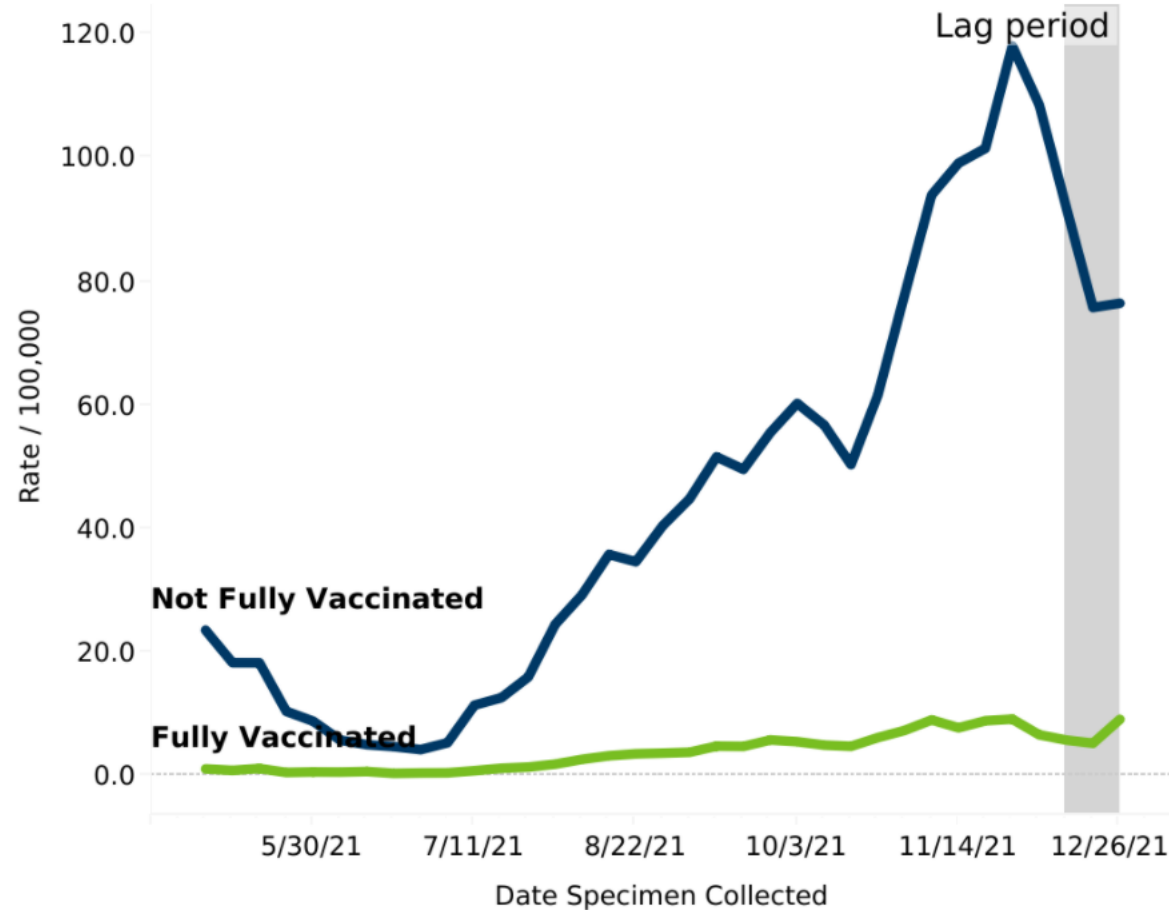
- Breakthrough cases represent 8.38% of fully vaccinated Minnesotans.

<https://www.health.state.mn.us/diseases/coronavirus/stats/vbt.html>

Vaccine Breakthrough Data - Hospitalizations

Hospitalizations: Weekly Age-Adjusted Rate

Hover/click over lines for more information



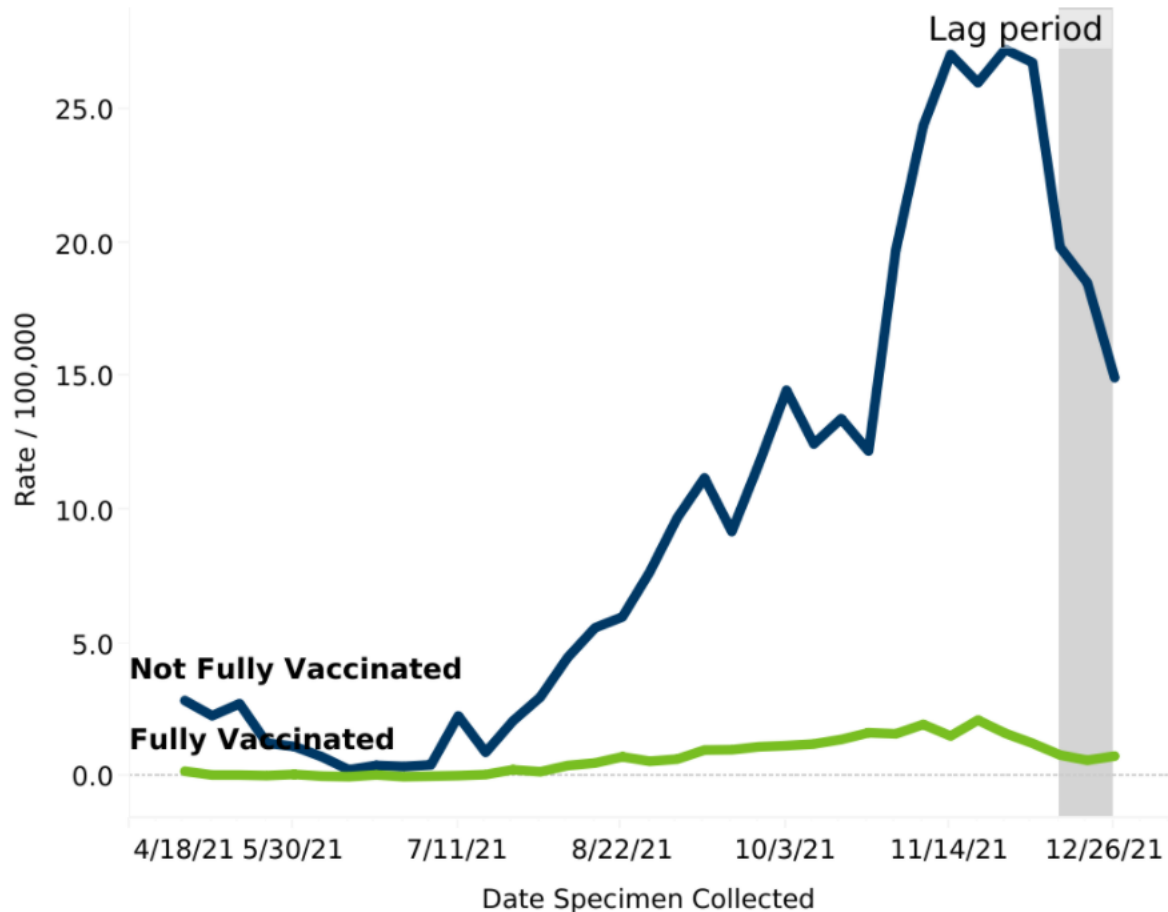
- 7,667 people have been hospitalized with vaccine breakthrough cases – that's .226% of fully vaccinated Minnesotans.

<https://www.health.state.mn.us/diseases/coronavirus/stats/vbt.html>

Vaccine Breakthrough Data - Deaths

Deaths: Weekly Age-Adjusted Rate

Hover/click over lines for more information



- 1,369 people have died with vaccine breakthrough cases – that’s 0.04% of fully vaccinated Minnesotans.

<https://www.health.state.mn.us/diseases/coronavirus/stats/vbt.html>



Thank you