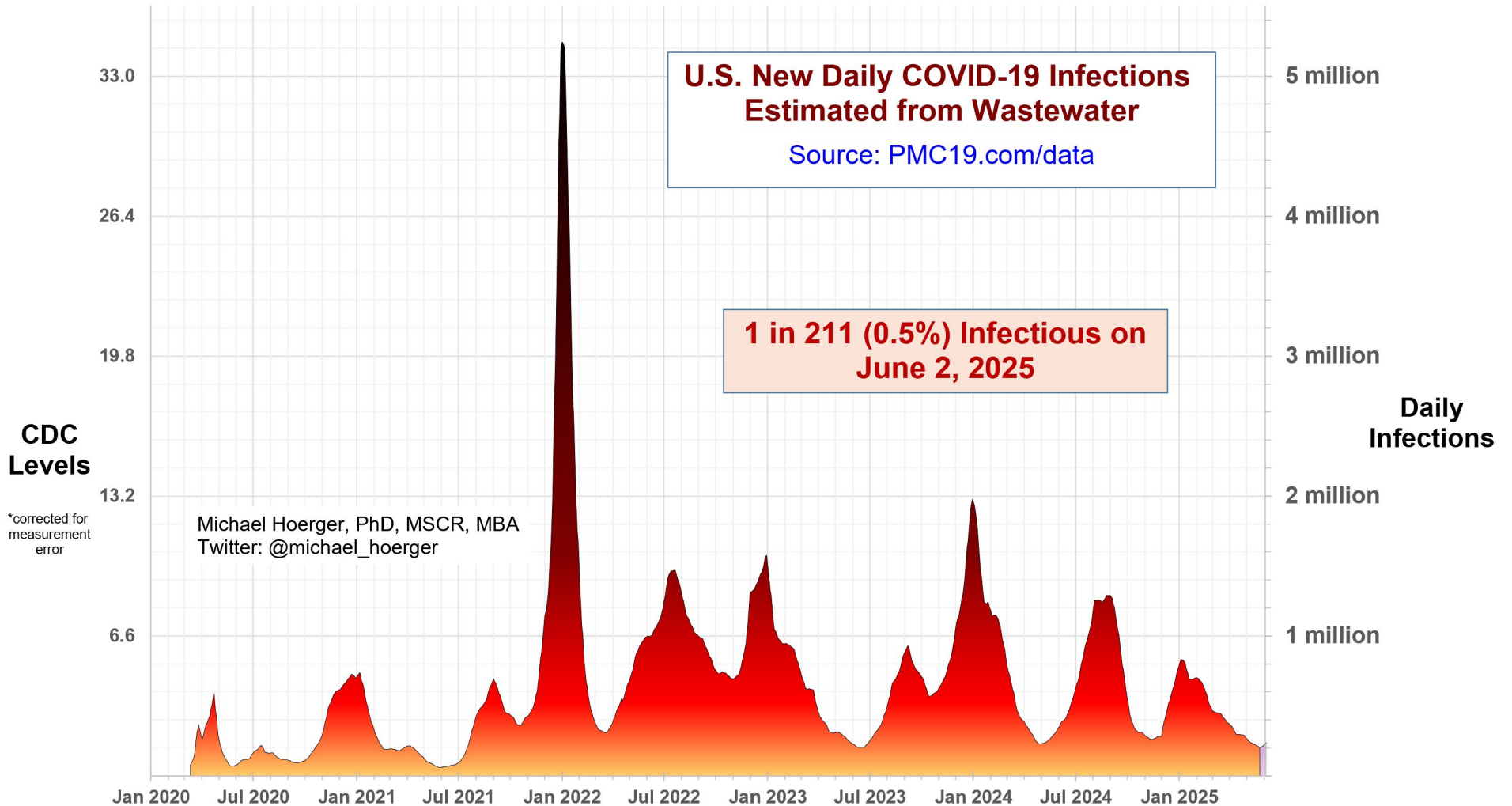


PMC U.S. COVID-19 Case Estimation and Forecasting Model: Report for June 2, 2025 pmc19.com/data

Michael Hoerger, PhD, MSCR, MBA, Pandemic Mitigation Collaborative (PMC)



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Announcements

Data Quality Note: The CDC (80% model weight) and Biobot (20% model weight) both reported this week. Data quality is moderate. The CDC data are running a bit “hotter” than Biobot at the moment; specifically, CDC sites are showing about 60% higher estimated transmission than the Biobot sites.

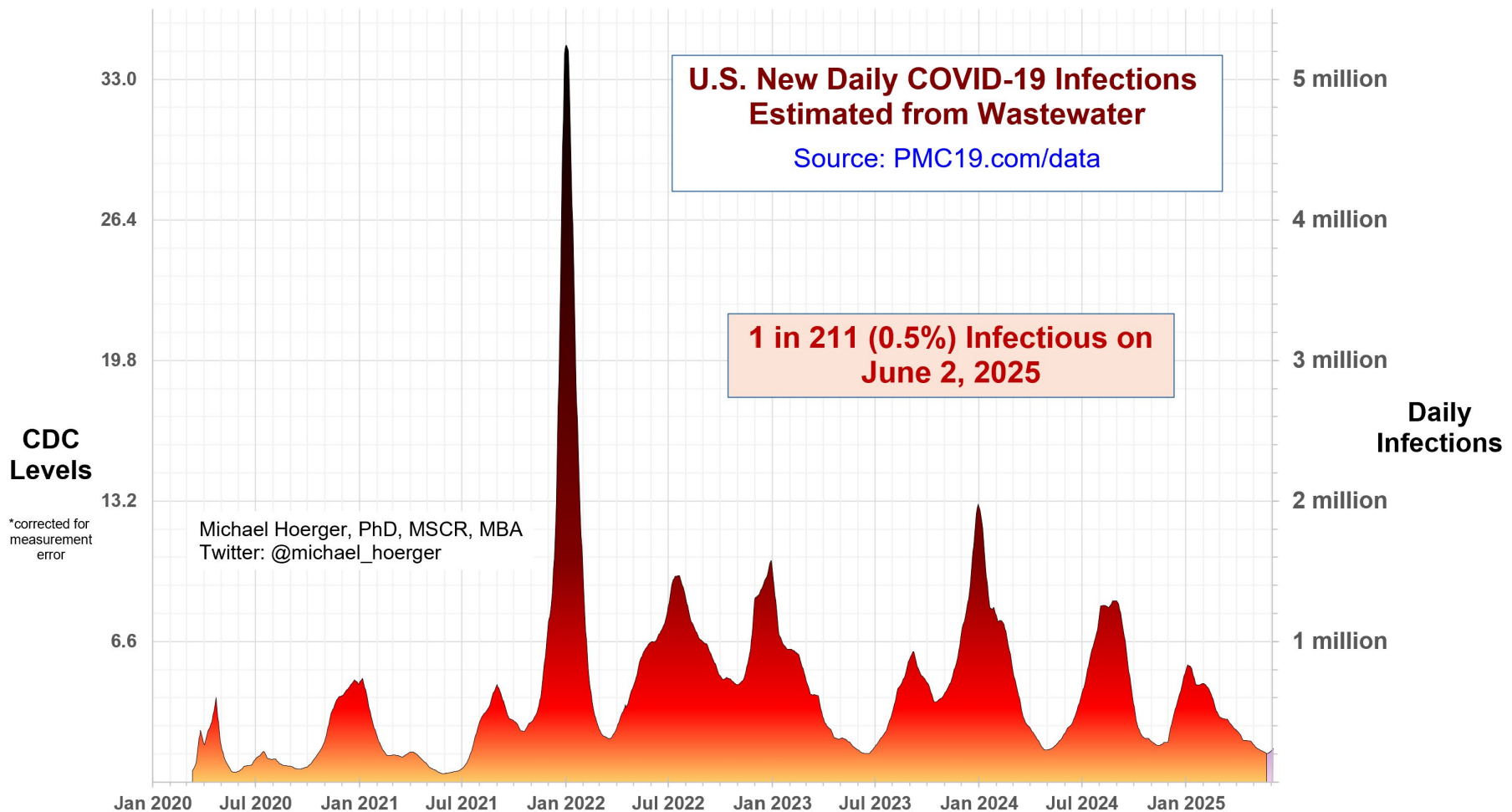
TODAY Show: The TODAY Show has provided television coverage of NB.1.8.1. and a more in-depth article on what to expect, citing the PMC in part.

Full link: <https://www.today.com/health/coronavirus/new-covid-variant-nb181-symptoms-rcna208189>

Shortcut: <http://tinyurl.com/nb181>

The Big-Picture View of the Pandemic

We are in a “lull” between Covid waves. Presently, an estimated 0.5% (1 in 211 people) are actively infectious. The national average for transmission may not get much lower for some time. We expected to see the CDC and Biobot numbers tick up slightly in the most recent update, but they continued to decline marginally, with national averages similar to June 2023 and their lowest since July 2021, acknowledging longitudinal variation in sampling sites and that the current data could get retroactively corrected upward.



Statistical Summary

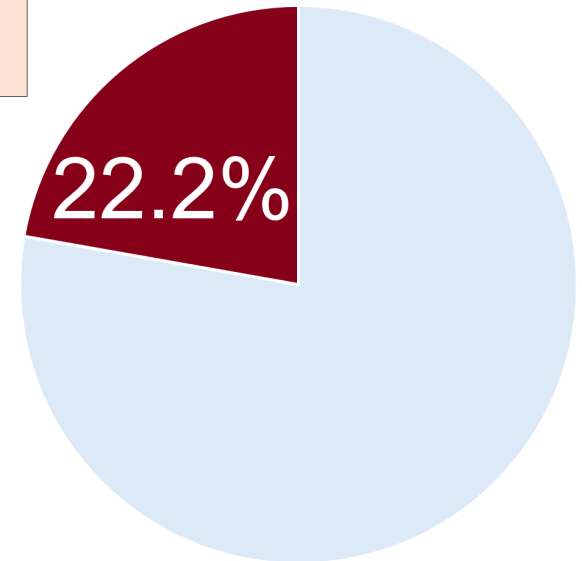
Presently, we are seeing an estimated nearly 1.6 million weekly infections, likely to result in 79-318k Long COVID cases, and 600-900 excess deaths in the U.S. In a room of 50 people of average risk, there would be a 1 in 5 chance of exposure. Transmission rarely gets this low (<22% of all days of the pandemic), mostly in the first 1.5 years the onset of COVID-19 when universal precautions were the norm.

Current Levels for Jun 2, 2025	
% of the Population Infectious	0.5% (1 in 211)
New Daily Infections	227,000
New Weekly Infections	1,589,000
Resulting Weekly Long COVID Cases	79,000 to 318,000
Resulting Weekly Excess Deaths	600 to 900

Monthly Forecast	
Average % of the Population Infectious	0.7% (1 in 139)
Average New Daily Infections	344,567
New Infections During the Next Month	10,337,000
Resulting Monthly Long COVID Cases	517,000 to 2,067,000
Resulting Monthly Excess Deaths	3,700 to 6,200

Running Totals	
Infections Nationwide in 2025	70,132,000
Average Number of Infections Per Person All-Time, U.S.	3.76

How Does Risk Increase with More Social Contacts?			
Number of People	Chances Anyone Is Infectious	Number of People	Chances Anyone Is Infectious
1	0.5%	15	6.9%
2	0.9%	20	9.1%
3	1.4%	25	11.2%
4	1.9%	30	13.3%
5	2.4%	35	15.3%
6	2.8%	40	17.3%
7	3.3%	50	21.2%
8	3.7%	75	30.0%
9	4.2%	100	37.9%
10	4.6%	300	76.0%



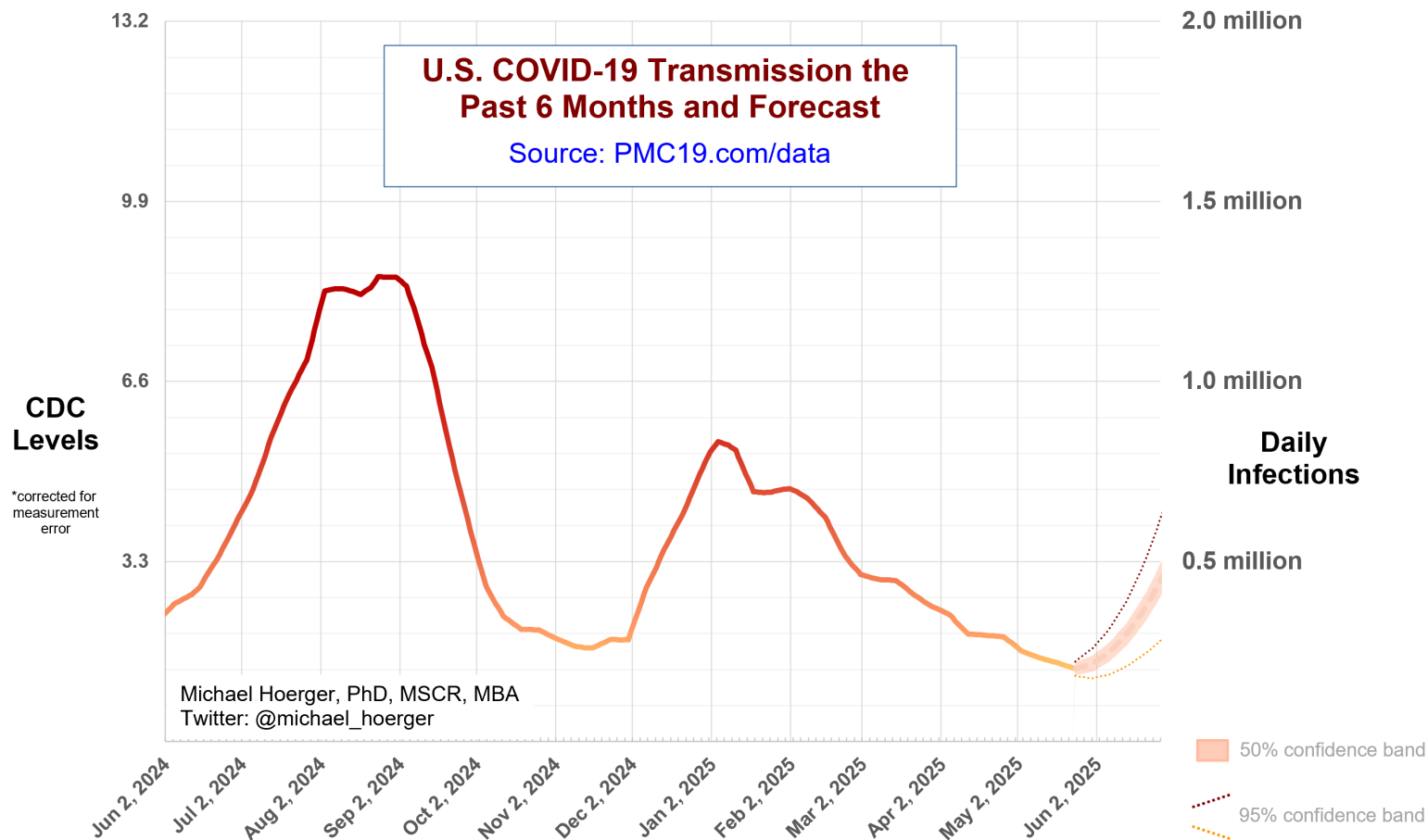
There is more COVID-19 transmission today than during 22.2% of the pandemic.

Assumes no testing/isolation protocols (U.S. only)
 pmc19.com/data

Michael Hoerger, PhD, MSCR, MBA
 Twitter: @michael_hoerger

Close-up on the Current Forecast

This graph shows the current forecast. Note that values for “today” are a forecast from data 9-12 days old. The current forecast is for steady transmission of 200-450k daily infections the next several weeks. The lower bound of the 95% confidence interval shows the optimistic scenario, for example, if NB.1.8.1 does not take off in the U.S. like it has elsewhere and transmission percolates near the lull for a while. The most pessimistic line shows what one might expect if it takes off quickly. The median estimate thus provides a nice forecast for where the U.S. may be headed, while acknowledging that uncertainty. Plenty of uncertainty exists around NB.1.8.1., so consider this range of scenarios.



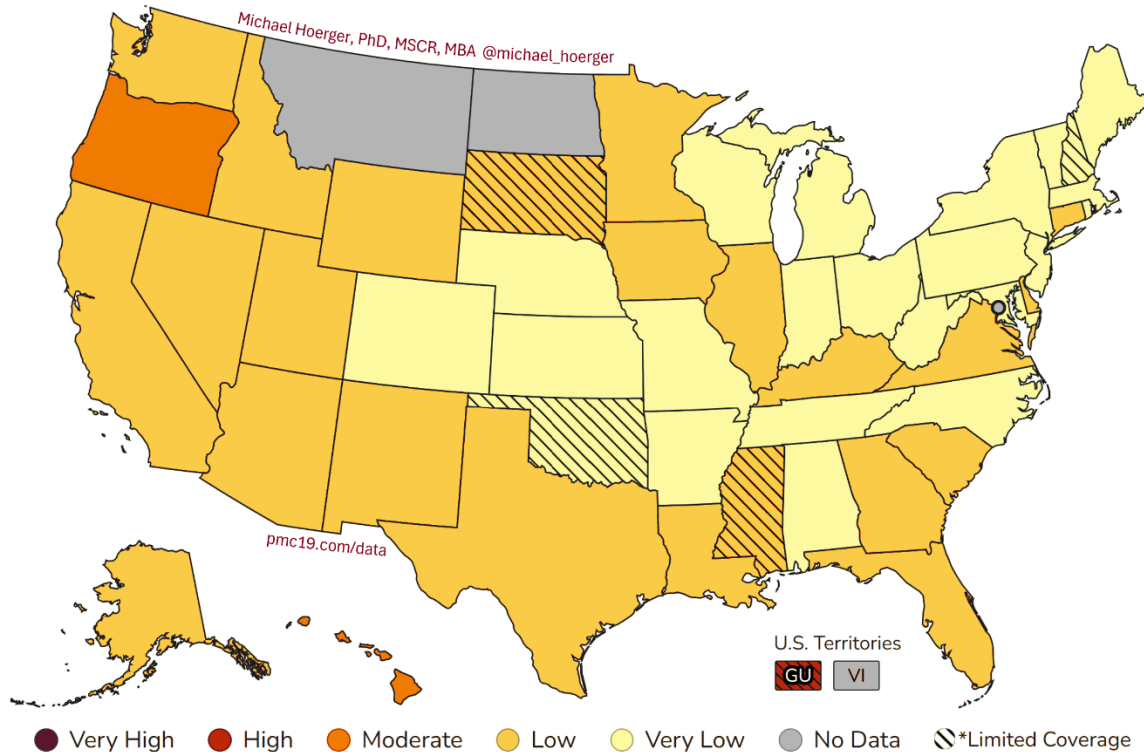
CDC COVID-19 Heat Map

This map uses the CDC state-by-state data to show areas with higher transmission in deeper red. The CDC version of the map, colored in cool blue is available online. Blue tends to confuse people to thinking transmission is “cool” or low, so we and various popular media outlets (e.g., Newsweek) tend to recolor.

<https://www.cdc.gov/nwss/rv/COVID19-currentlevels.html>

Transmission is ‘high’ in Guam and ‘moderate’ in Oregon and Hawaii per the CDC’s most recent data, a reminder that during a national “lull,” transmission can still be high in several places. In the northeast transmission is quite low, and in some states levels are approximately 1 in 600 infectious.

COVID-19 Heat Map, CDC Data & Risk Levels, Higher Transmission in Deeper Red



Regional Case Estimation

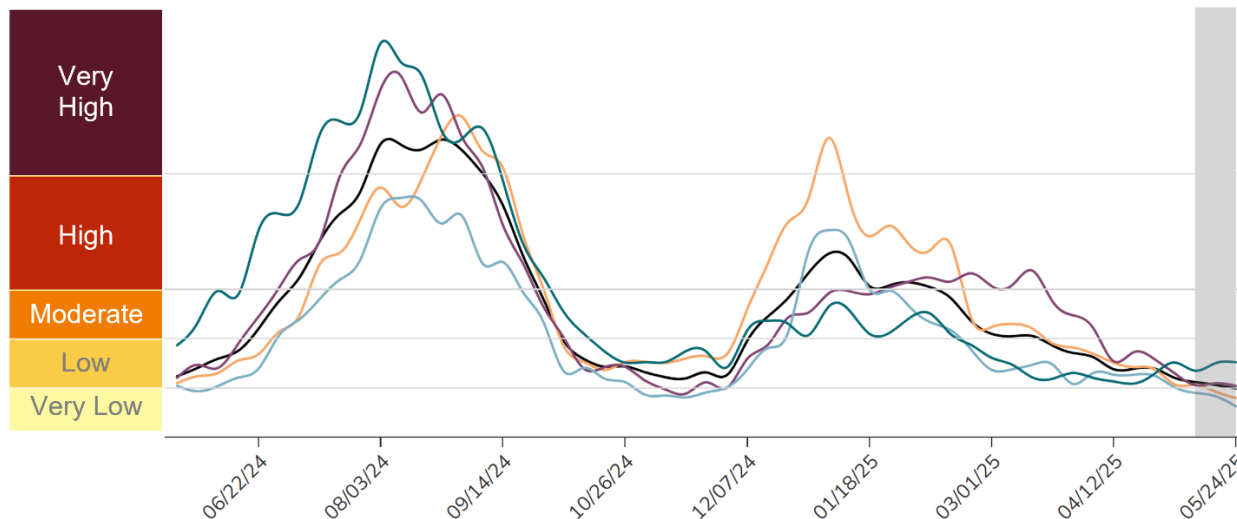
This graph from the CDC shows regional variation in transmission. You can use the “PMC Regional Multiplier” to get a ballpark estimate the proportion of a given region actively infectious with COVID-19 (see Technical Appendix document on the dashboard page).

The CDC regional data are available online:

<https://www.cdc.gov/nwss/rv/COVID19-nationaltrend.html>

State-level data are also available: <https://www.cdc.gov/nwss/rv/COVID19-statetrend.html>

CDC Regional Levels with PMC Estimates of the Percentage Actively Infectious



Estimated Percentage Actively Infectious*		
	PMC Model	Raw CDC Data
 National	0.5% (1 in 211)	0.5% (1 in 215)
 Northeast	0.3% (1 in 332)	0.3% (1 in 339)
 Midwest	0.4% (1 in 262)	0.4% (1 in 268)
 South	0.5% (1 in 200)	0.5% (1 in 204)
 West	0.7% (1 in 137)	0.7% (1 in 140)

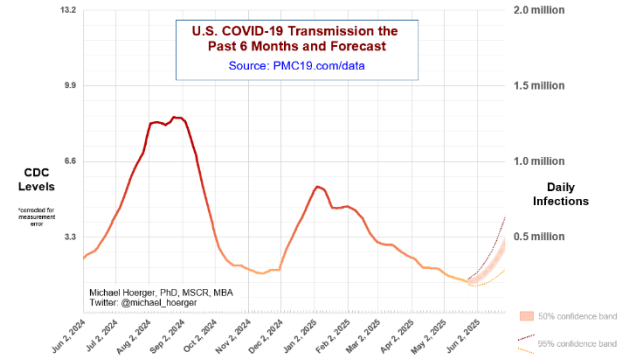
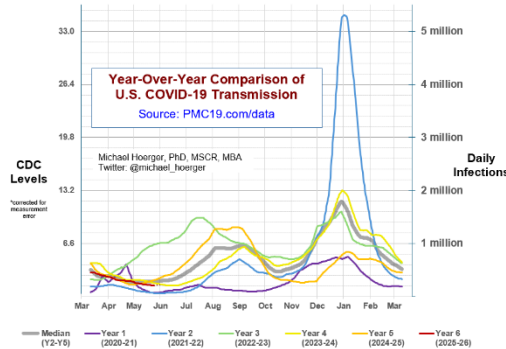
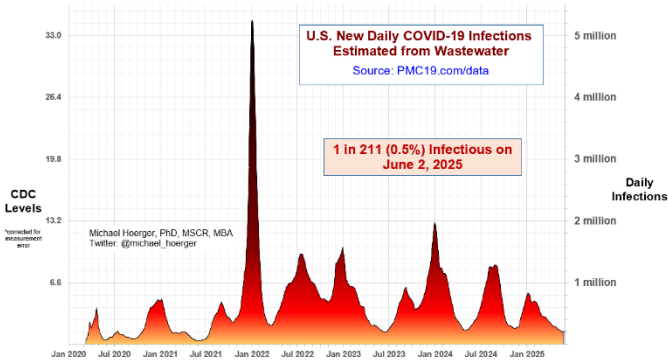
PMC Regional Multiplier*
0.313

* CDC level multiplied by the PMC Regional Multiplier provides an approximate estimate of the percentage actively infectious.

* The "Raw CDC" values are simply the value in the CDC chart multiplied by the PMC Regional Multiplier. The "PMC Model" estimates adjust those data by accounting for reporting time lag.

PMC COVID-19 Dashboard

Here is the complete PMC COVID-19 Dashboard. Please share the images across social media and other websites. Michael Hoerger, PhD, MSCR, MBA | Pandemic Mitigation Collaborative | pmc19.com/data



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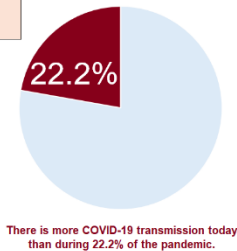
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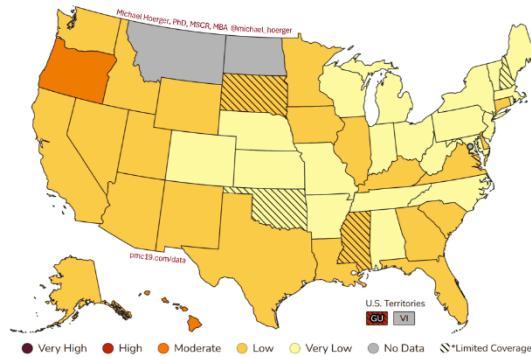
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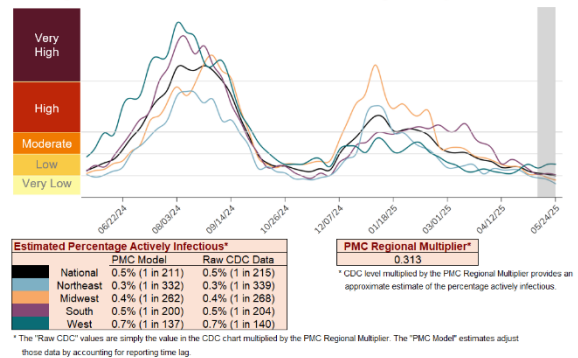
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COVID-19 Heat Map, CDC Data & Risk Levels, Higher Transmission in Deeper Red



CDC Regional Levels with PMC Estimates of the Percentage Actively Infectious



A separate document called a Technical Appendix appears on the dashboard page and has more methodologic info.