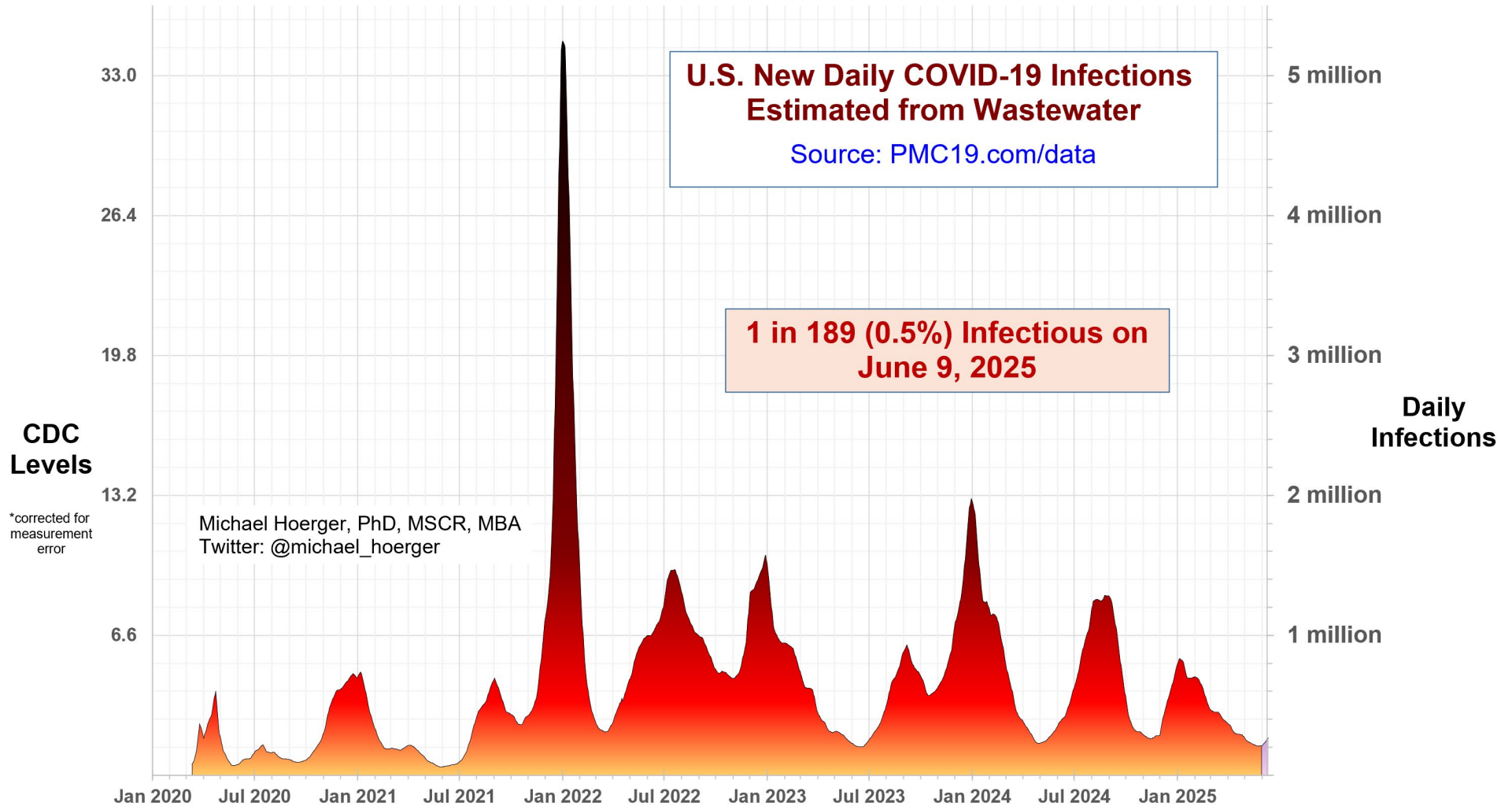


PMC U.S. COVID-19 Case Estimation and Forecasting Model: Report for June 9, 2025 pmc19.com/data

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 still running a bit “hotter” than Biobot at the moment; specifically, CDC sites are showing about 60% higher estimated transmission than the Biobot sites.

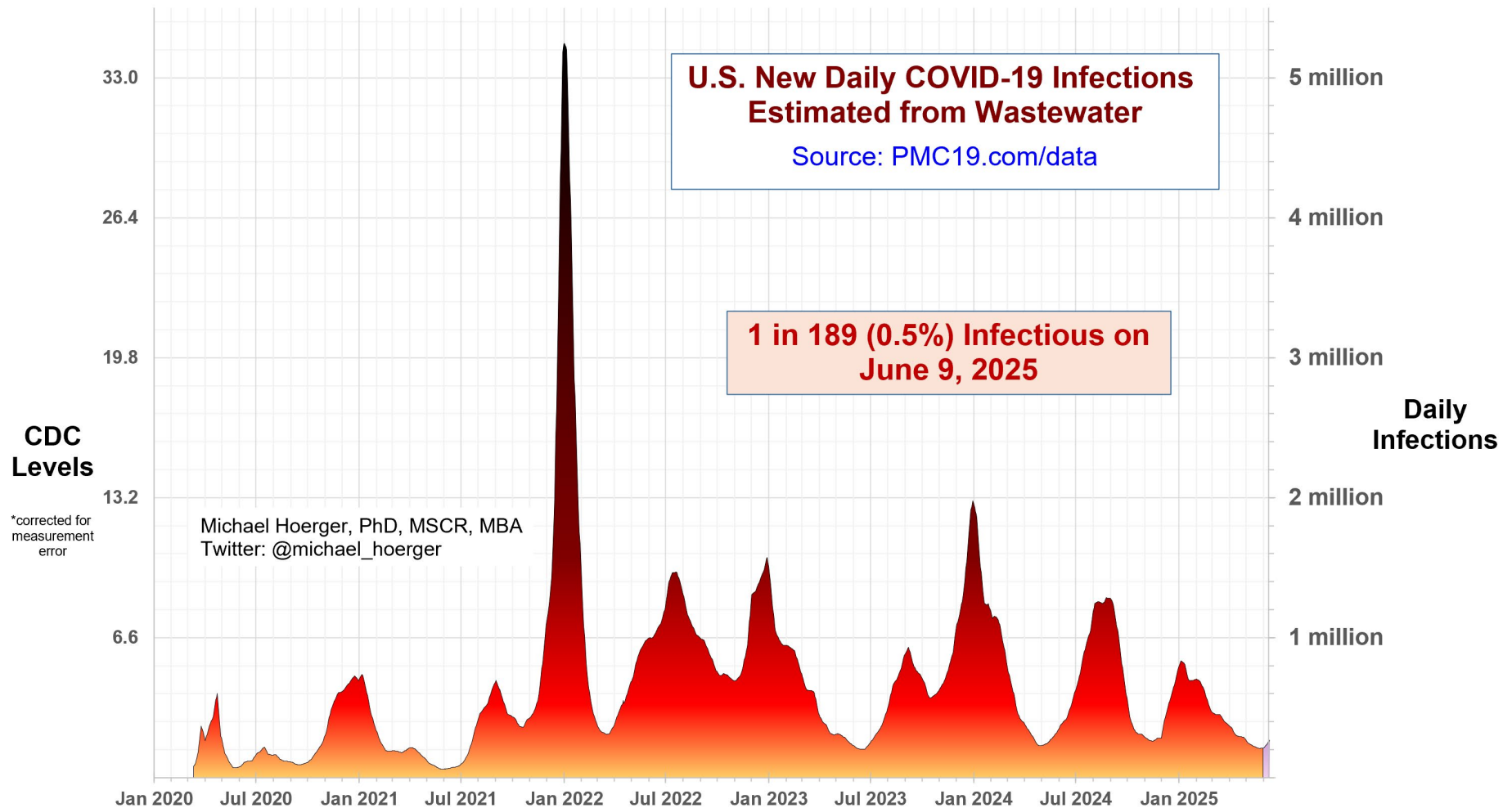
TODAY Show: The TODAY Show has provided television coverage of NB.1.8.1. and a more in-depth article on what to expect, citing the PMC in part.

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 189 people) are actively infectious. The national average for transmission may not get much lower for some time. We expected to see the wastewater surveillance levels tick up last week, but the uptick was not evident until this week, running not far behind expectations. Barring retroactive corrections, the 10th wave is likely over, with the 11th wave on the way.



Statistical Summary

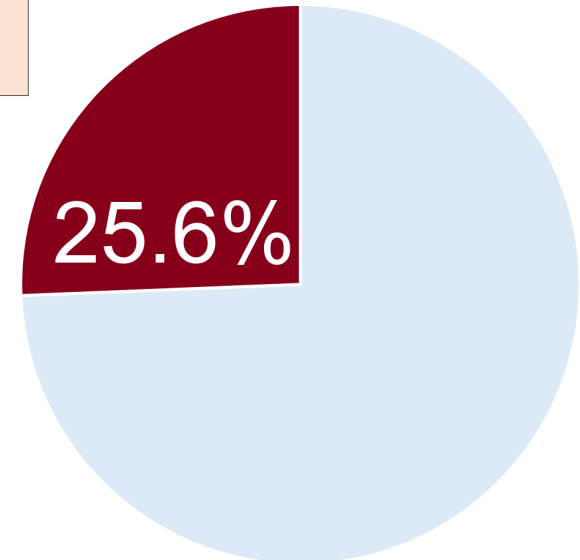
Presently, we are seeing an estimated nearly 1.8 million weekly infections, likely to result in 89-354k Long COVID cases, and 600-1,100 excess deaths in the U.S. In a room of 50 people of average risk, there would be a 1 in 4 chance of exposure. Transmission rarely gets this low (<26% of all days of the pandemic), mostly in the first 1.5 years the onset of COVID-19 when universal precautions were the norm.

Current Levels for Jun 9, 2025	
% of the Population Infectious	0.5% (1 in 189)
New Daily Infections	253,000
New Weekly Infections	1,771,000
Resulting Weekly Long COVID Cases	89,000 to 354,000
Resulting Weekly Excess Deaths	600 to 1,100

Monthly Forecast	
Average % of the Population Infectious	0.8% (1 in 119)
Average New Daily Infections	402,767
New Infections During the Next Month	12,083,000
Resulting Monthly Long COVID Cases	604,000 to 2,417,000
Resulting Monthly Excess Deaths	4,300 to 7,200

Running Totals	
Infections Nationwide in 2025	71,941,000
Average Number of Infections Per Person All-Time, U.S.	3.77

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	7.7%
2	1.1%	20	10.1%
3	1.6%	25	12.4%
4	2.1%	30	14.7%
5	2.6%	35	17.0%
6	3.1%	40	19.1%
7	3.6%	50	23.3%
8	4.2%	75	32.8%
9	4.7%	100	41.2%
10	5.2%	300	79.7%



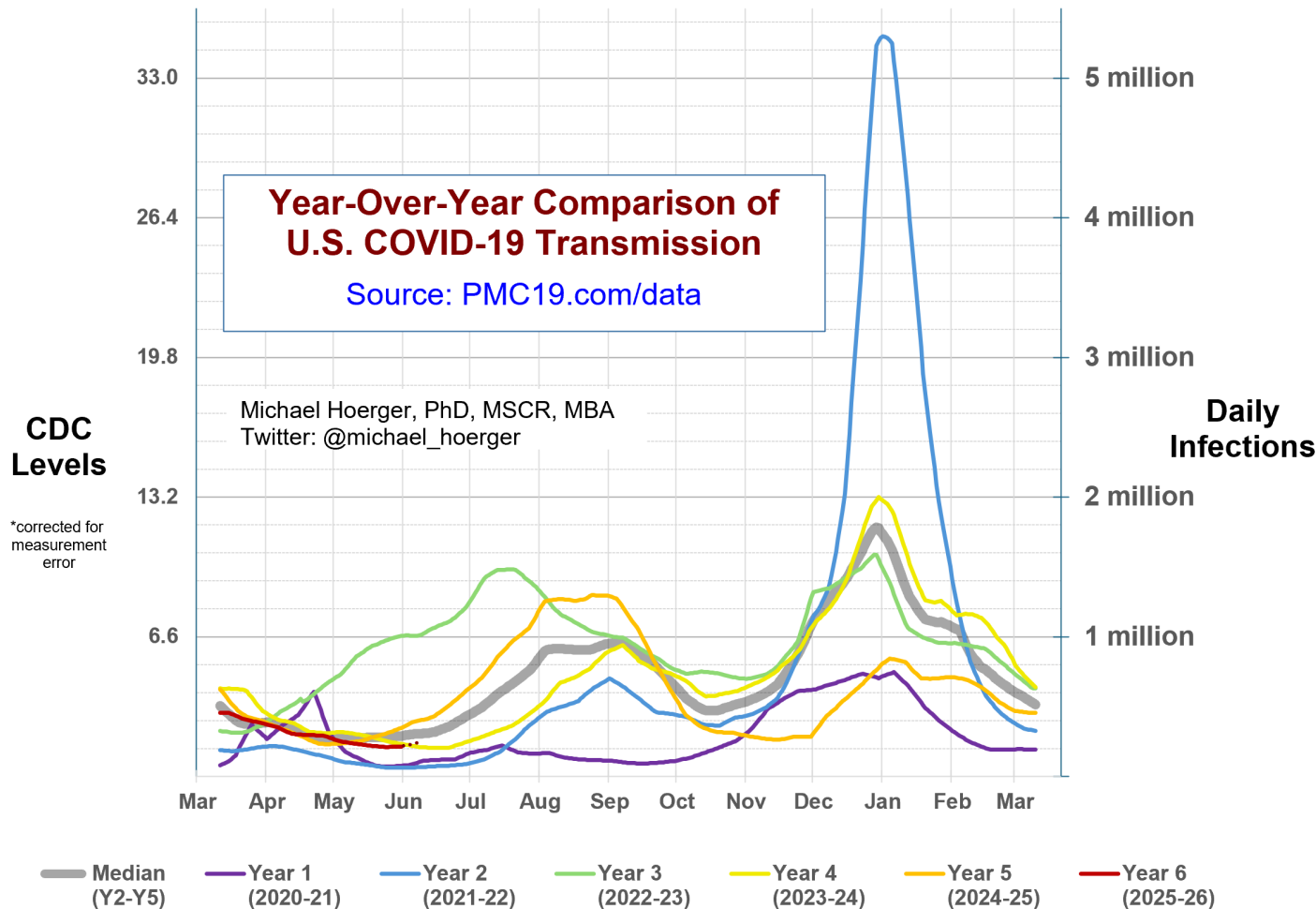
There is more COVID-19 transmission today than during 25.6% of the pandemic.

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

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

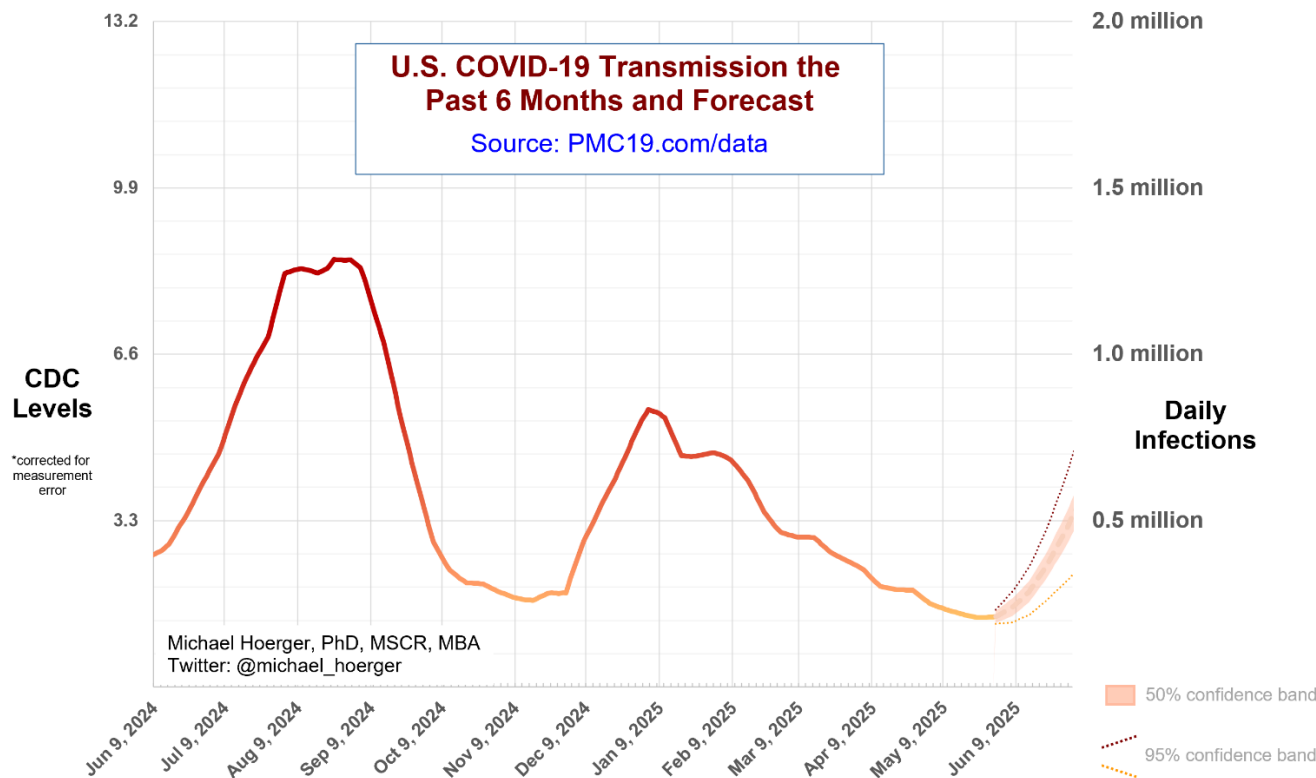
Year-Over-Year Comparisons

The year-over-year graph shows current transmission along the red line in the lower left corner. The model is tracking closely with the median (gray line) and Year 4 (two years ago, yellow line). This graph provides face validity for the forecast, a simple way of observing how transmission might go if following similar-looking prior years. One might imagine a further-delayed uptick and a pattern following more like the yellow line, or an acceleration in transmission going between the gray and orange lines.



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 increasing transmission over 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 (200-350K daily infections). The most pessimistic line shows what one might expect if it takes off quickly (700K daily infections). The median estimate thus provides a nice forecast for where the U.S. may be headed in a few weeks (500K daily infections), while acknowledging that uncertainty. Plenty of uncertainty exists around NB.1.8.1., so consider this range of scenarios. As a reminder, we tend to describe levels >500K daily as “wave” territory and >1 million daily as “surge” territory. By the end of the month, we will have a better sense of whether we are in fact headed into a surge.



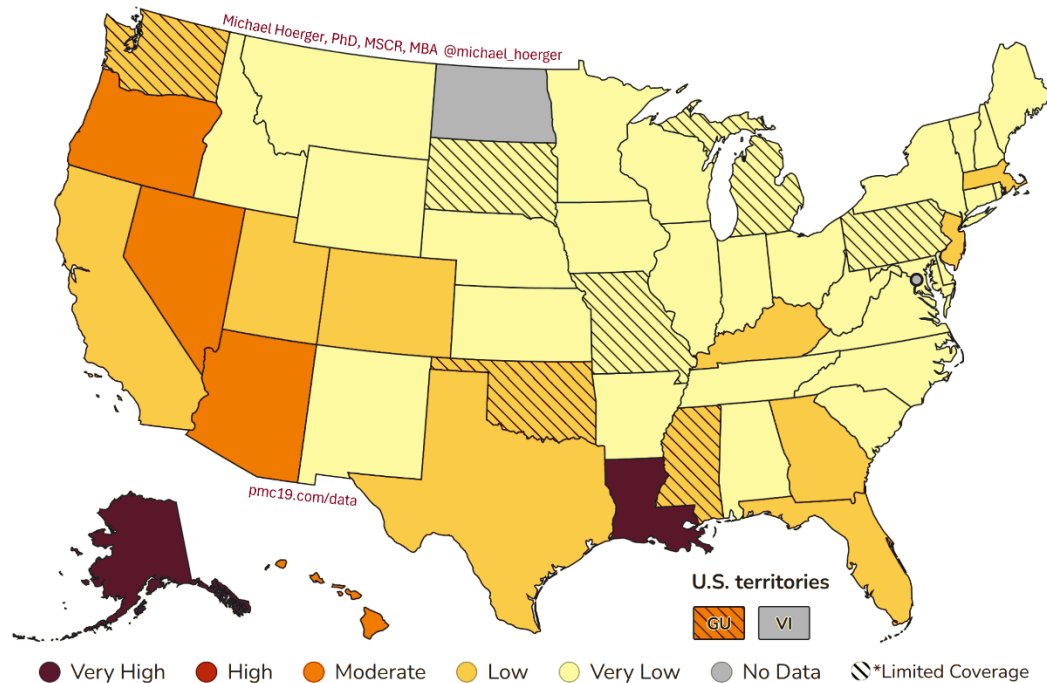
CDC COVID-19 Heat Map

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 in Alaska and Louisiana falls in the CDC ‘Very High’ range, with nearly 1 in 30 residents estimated to be actively infectious. This is not receiving national news coverage, nor warnings from the CDC. Note that Louisiana was the last state to leave the ‘High’ transmission level of late and was only in the low range before skyrocketing in the most recent week’s data. This may suggest NB.1.8.1 immune evasion, but that remains to be understood.

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



Regional Case Estimation

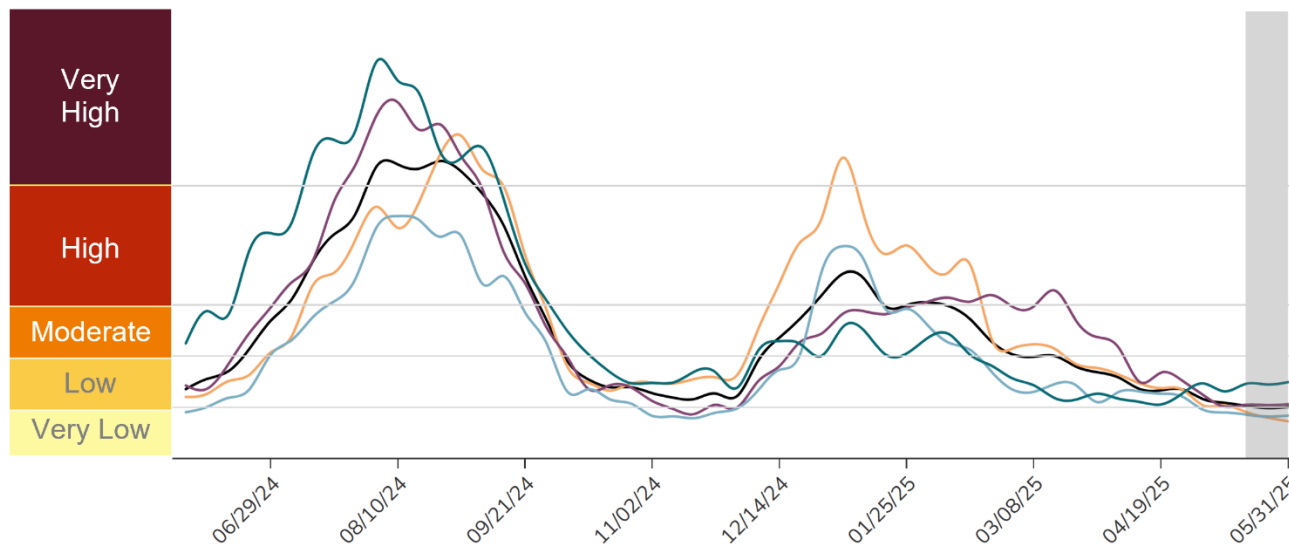
This graph from the CDC shows regional variation in transmission. You can use the “PMC Regional Multiplier” to get a ballpark estimate the proportion of a given region actively infectious with COVID-19 (see Technical Appendix document on the dashboard page).

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 189)	0.5% (1 in 205)
	Northeast	0.4% (1 in 227)	0.4% (1 in 246)
	Midwest	0.4% (1 in 261)	0.4% (1 in 284)
	South	0.6% (1 in 179)	0.5% (1 in 195)
	West	0.8% (1 in 127)	0.7% (1 in 138)

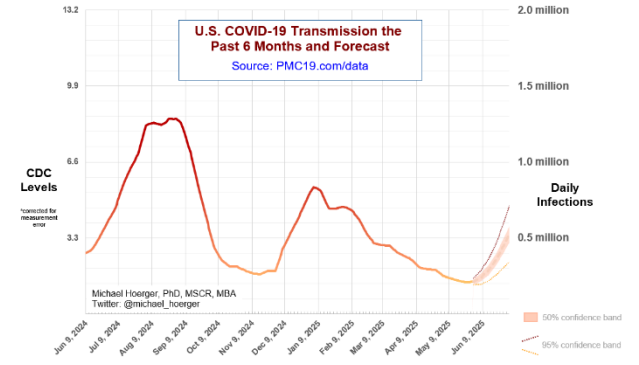
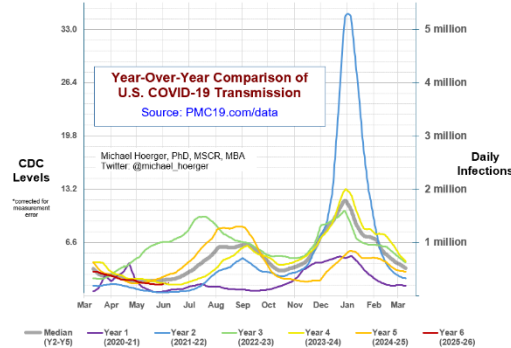
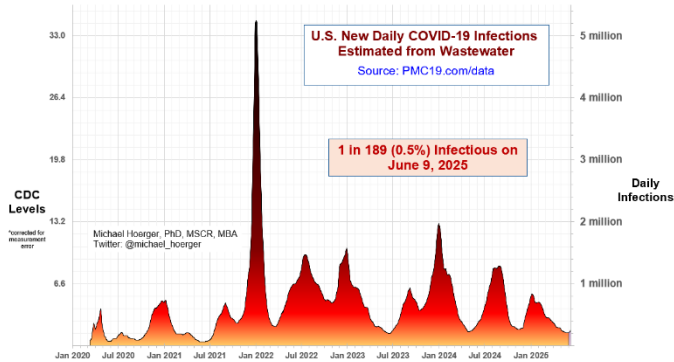
PMC Regional Multiplier*
0.314

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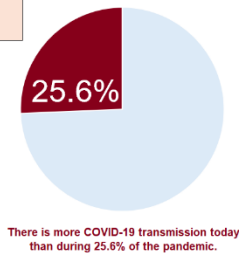
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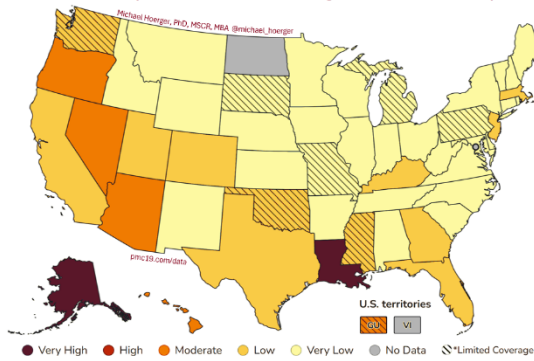
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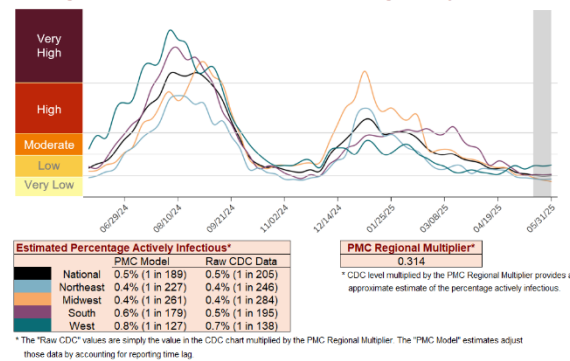
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COVID-19 Heat Map, CDC Data & Risk Levels, Higher Transmission in Deeper Red



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.