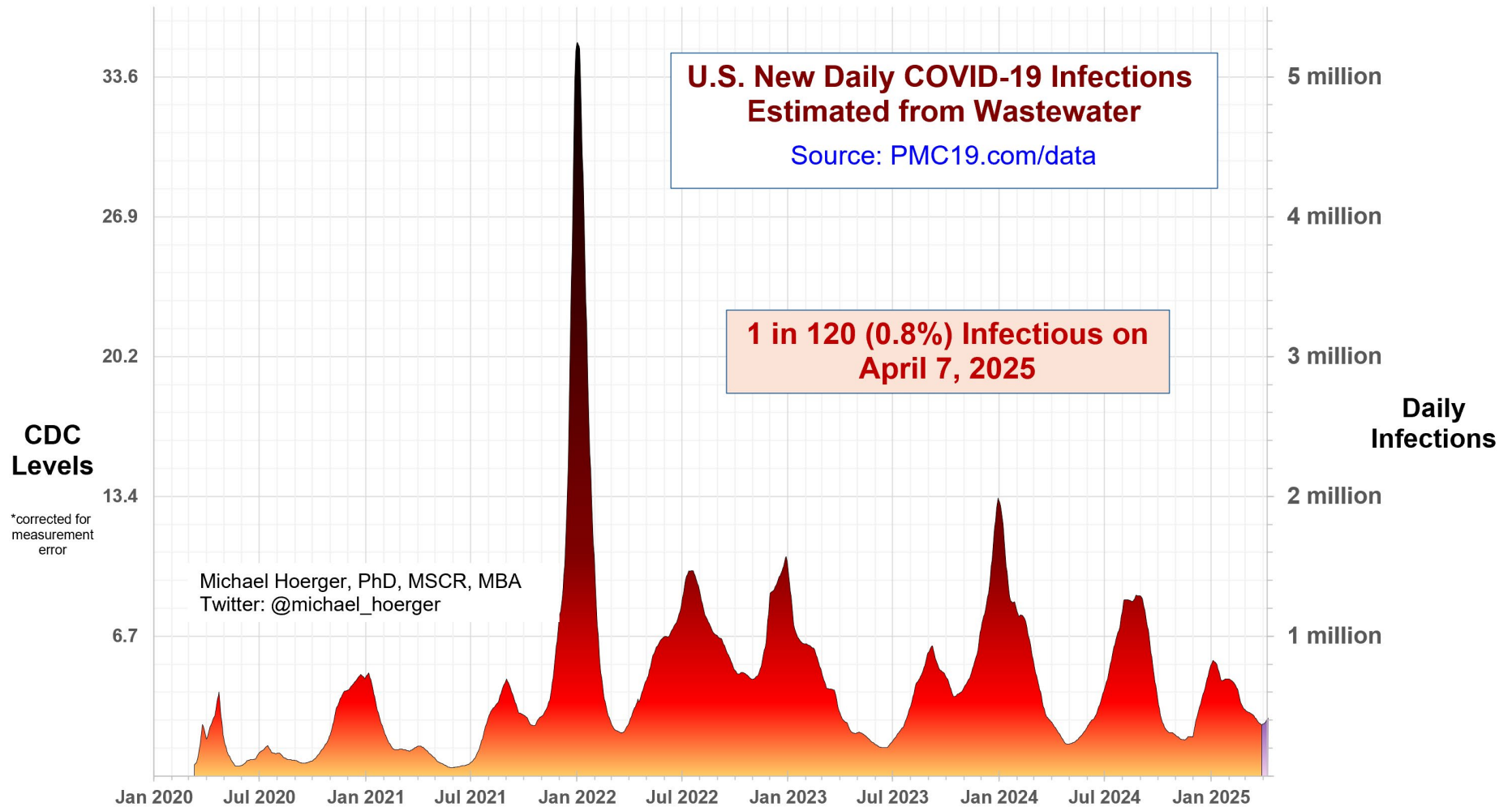


PMC U.S. COVID-19 Case Estimation and Forecasting Model: Report for April 7, 2025, pmc19.com/data

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



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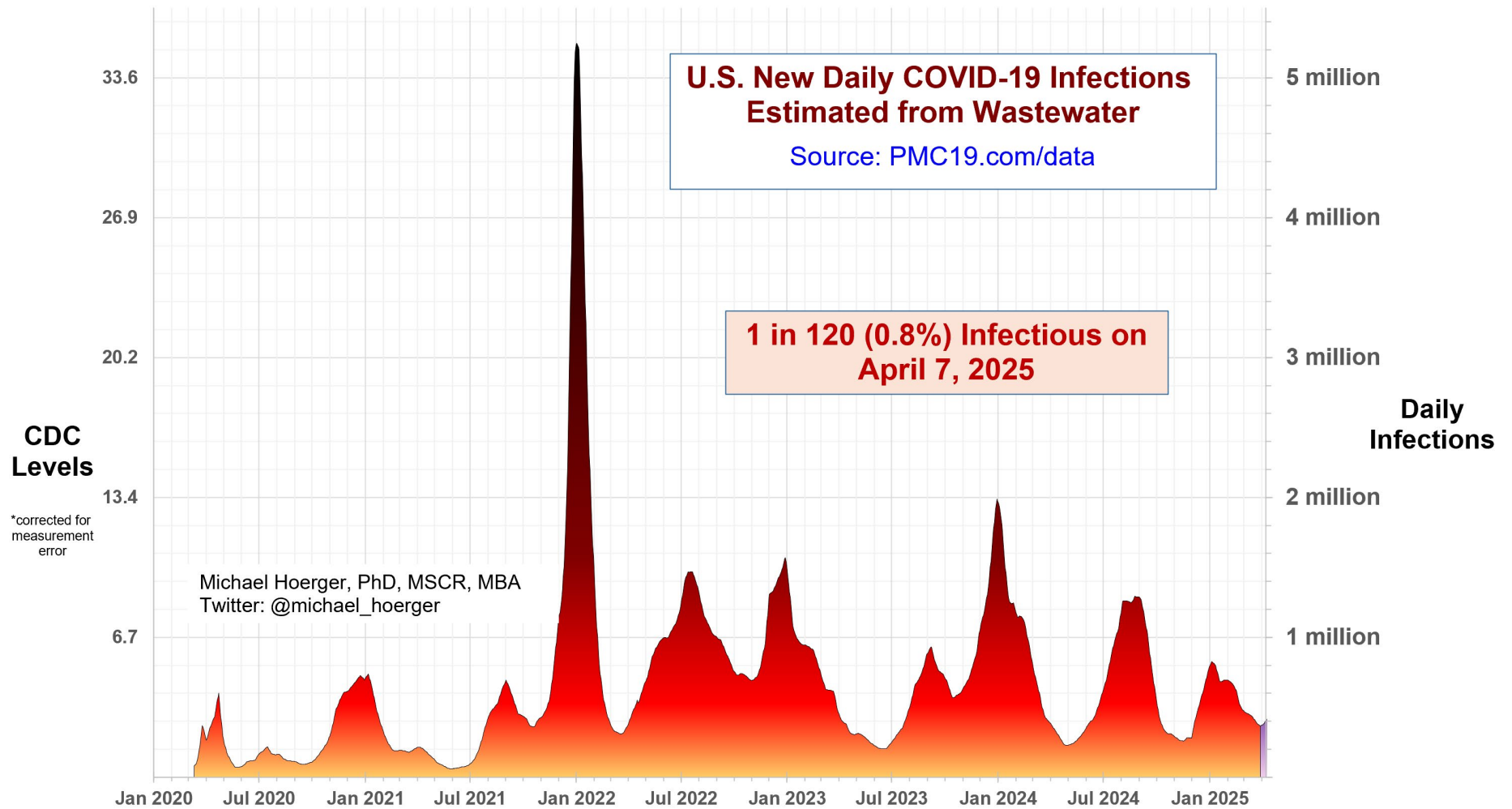
Announcements

Data Quality Note: The CDC (80% model weight) reported data this week, but Biobot (20% model weight) did not update. Data quality remains moderate, and current transmission patterns are atypical, so monitor closely. The biggest factor in the forecasted trajectory is the accuracy of the most recent week's incoming data.

Methodology Update: The dashboard now includes excess death estimates, which were recently described in the Technical Appendix and a new video.

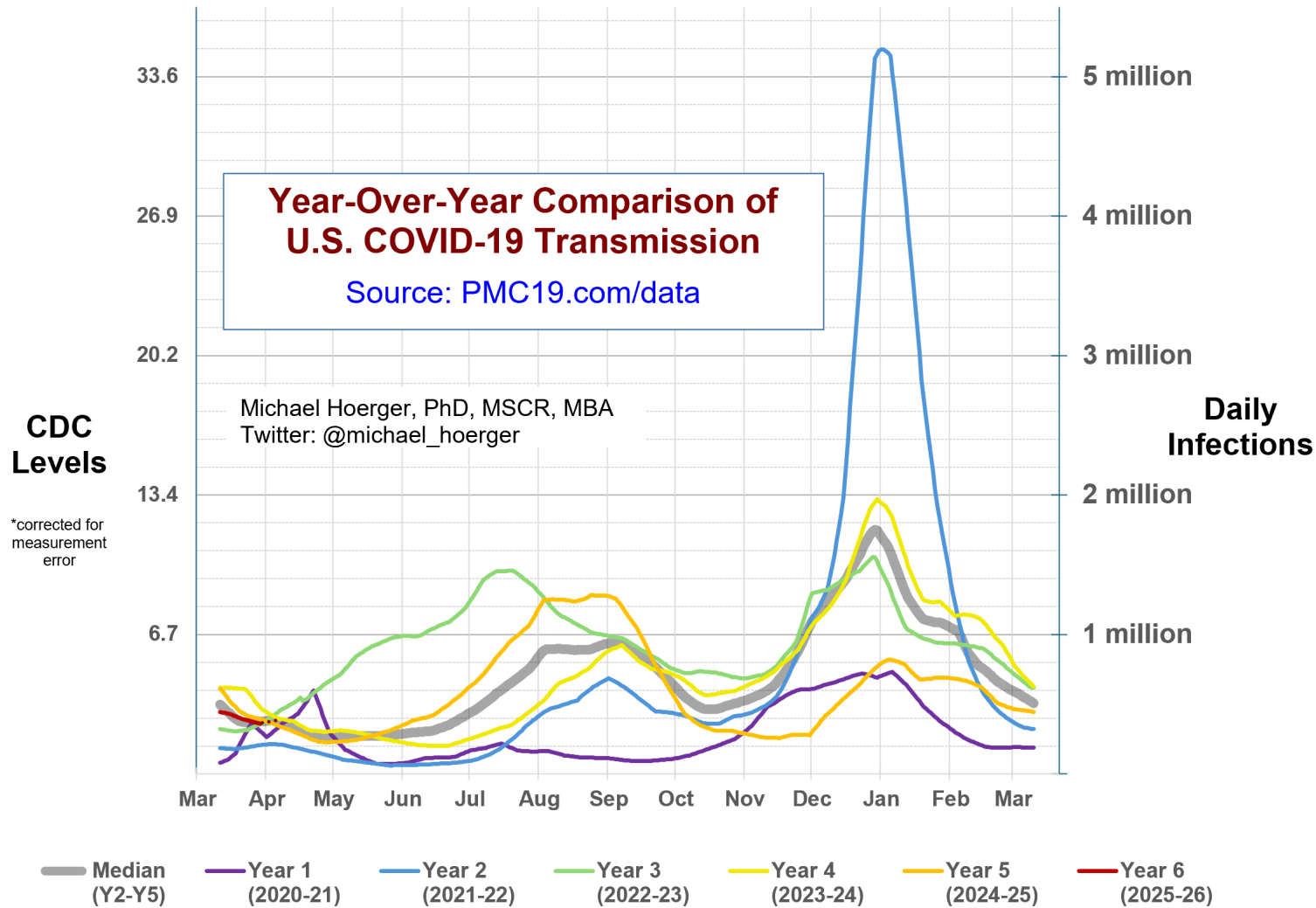
The Big-Picture View of the Pandemic

We are in a high “lull” between Covid waves. Presently, an estimated 0.8% (1 in 120 people) are actively infectious.



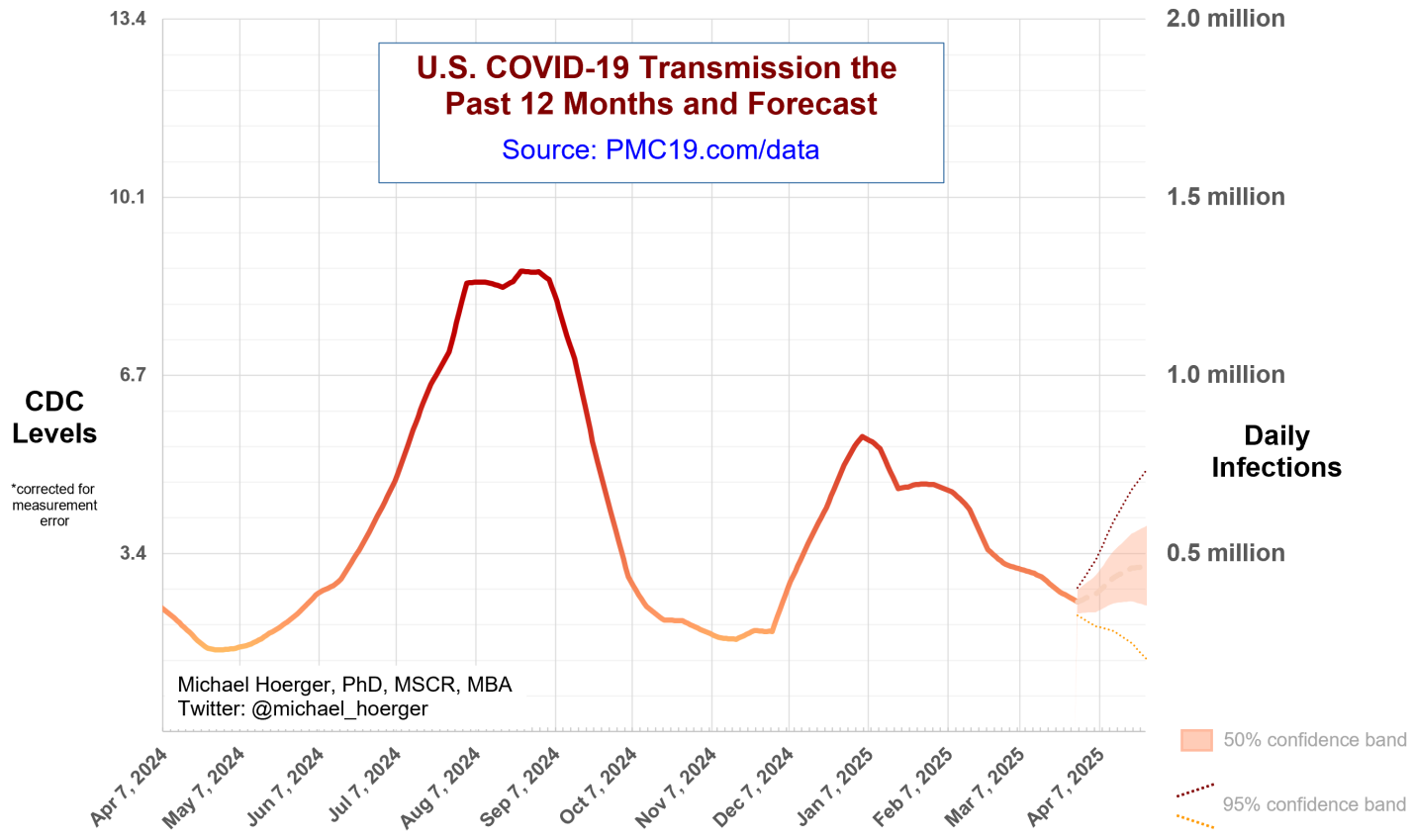
Year-Over-Year Comparisons

The year-over-year graph shows current transmission along the red line in the lower left corner. Note that transmission is tracking closely with median transmission (grey line) and year 4 (yellow line).



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 350,000-550,000 daily infections the next several weeks. Avoid overinterpreting the minor forecasted uptick on the right; looking back at the prior page, note that in several years, transmission bounces around this time of year at differences that are quite marginal in hindsight. WastewaterSCAN has shown a near doubling of transmission the past several weeks at their sites in the Northeast, so keep an eye on whether LP.8.1. picks up there as a potential culprit if on a more pessimistic path. Approximately equally likely, real-time estimates may get retroactively corrected marginally downward, with a lull bottoming out near 250,000 daily infections. It is a good time to check local/regional data for those packing in higher-risk essential activities.



Supplemental Statistics

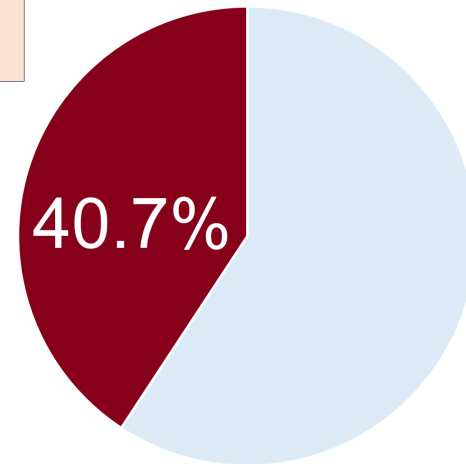
These supplemental statistics may prove useful in conversations about transmission and mitigation. In a large event of 50 people, there is a 1-in-3 chance of exposure if average risk and no firm testing/isolation policies. **The updated table now shows that the infections this week are anticipated to result in 1,000-1,700 excess deaths. The infections over the next month are expected to result in 4,900-8,100 excess deaths.**

Current Levels for Apr 7, 2025	
% of the Population Infectious	0.8% (1 in 120)
New Daily Infections	399,000
New Weekly Infections	2,793,000
Resulting Weekly Long COVID Cases	140,000 to 559,000
Resulting Weekly Excess Deaths	1,000 to 1,700

Monthly Forecast	
Average % of the Population Infectious	1.0% (1 in 105)
Average New Daily Infections	455,767
New Infections During the Next Month	13,673,000
Resulting Monthly Long COVID Cases	684,000 to 2,735,000
Resulting Monthly Excess Deaths	4,900 to 8,100

Running Totals	
Infections Nationwide in 2025	55,591,000
Average Number of Infections Per Person All-Time, U.S.	3.72

How Does Risk Increase with More Social Contacts?			
Number of People	Chances Anyone Is Infectious	Number of People	Chances Anyone Is Infectious
1	0.8%	15	11.8%
2	1.7%	20	15.4%
3	2.5%	25	18.9%
4	3.3%	30	22.2%
5	4.1%	35	25.4%
6	4.9%	40	28.5%
7	5.7%	50	34.2%
8	6.5%	75	46.7%
9	7.3%	100	56.8%
10	8.0%	300	91.9%



There is more COVID-19 transmission today than during 40.7% of the pandemic.

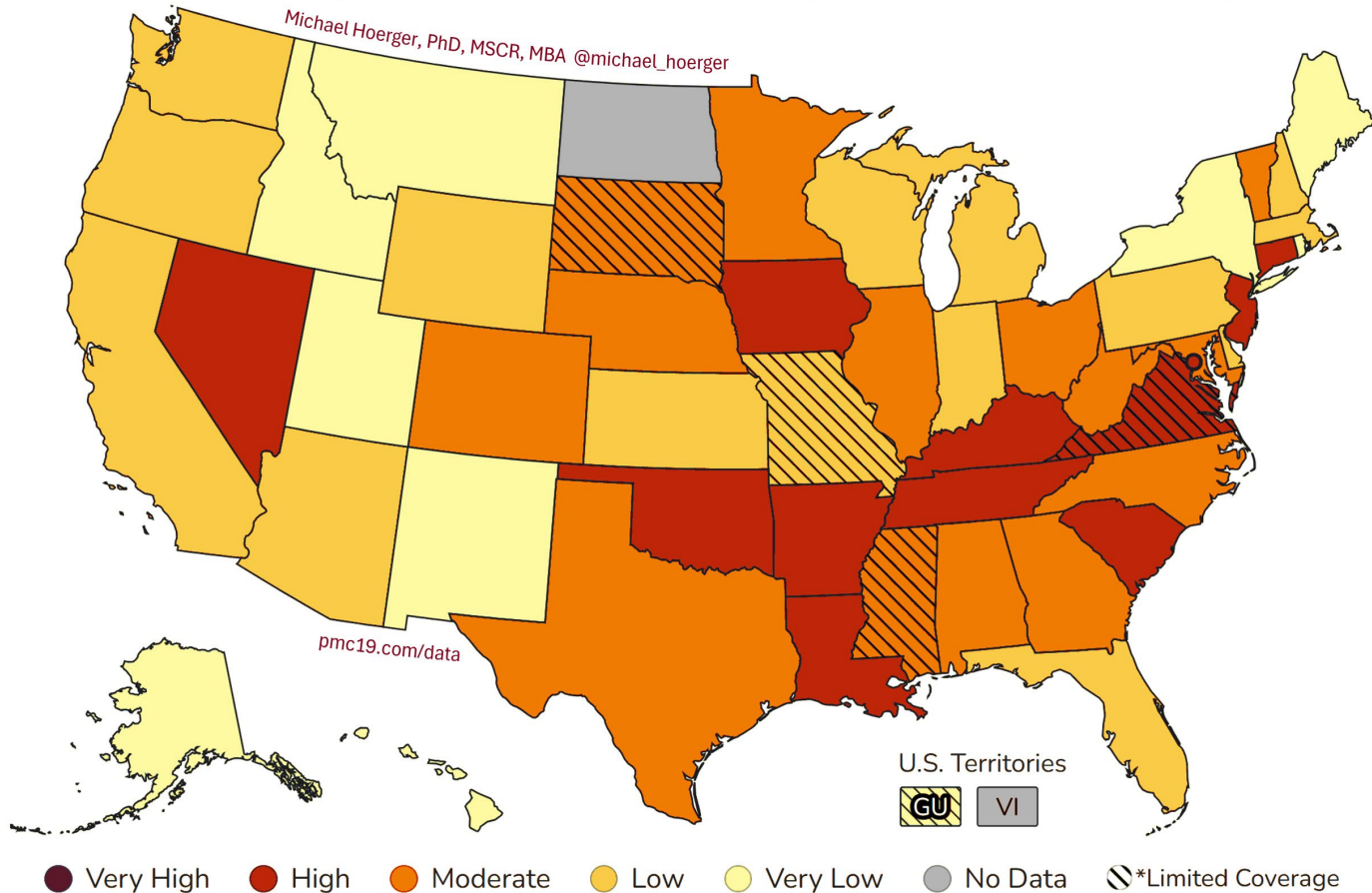
Assumes no testing/isolation protocols (U.S. only)
pmc19.com/data

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

CDC COVID-19 Heat Map

This map uses the CDC state-by-state data to show areas with higher transmission in deeper red. Notice the considerable geographic variation. The CDC version of the map, colored in cool blue is available online. Blue tends to confuse people into thinking transmission is “cool” or low, so we and various popular media outlets (e.g., Newsweek) tend to recolor. The dashed lines indicate atypically low representation from the wastewater sites within a state. <https://www.cdc.gov/nwss/rv/COVID19-currentlevels.html>

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



Regional Case Estimation

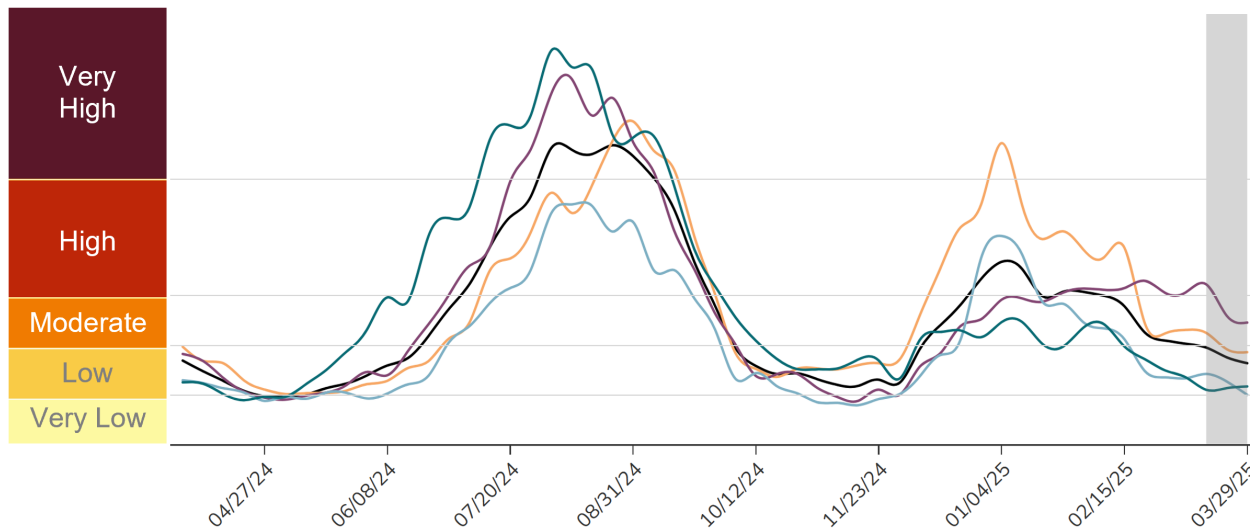
This graph from the CDC shows regional variation in transmission. You can use the “PMC Regional Multiplier” to get a ballpark estimate the proportion of a given region actively infectious with COVID-19 (see Technical Appendix document on the dashboard page).

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	0.8% (1 in 120)	0.8% (1 in 129)
	Northeast	0.5% (1 in 195)	0.5% (1 in 210)
	Midwest	0.9% (1 in 106)	0.9% (1 in 114)
	South	1.2% (1 in 80)	1.2% (1 in 86)
	West	0.6% (1 in 167)	0.6% (1 in 180)

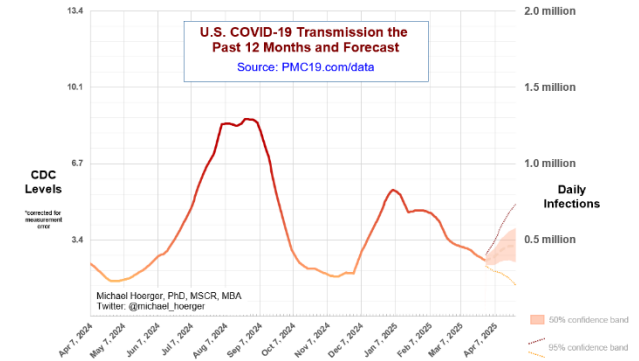
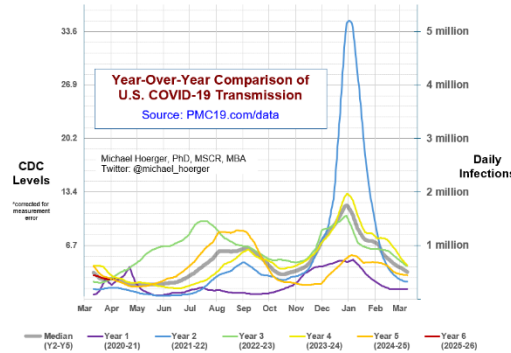
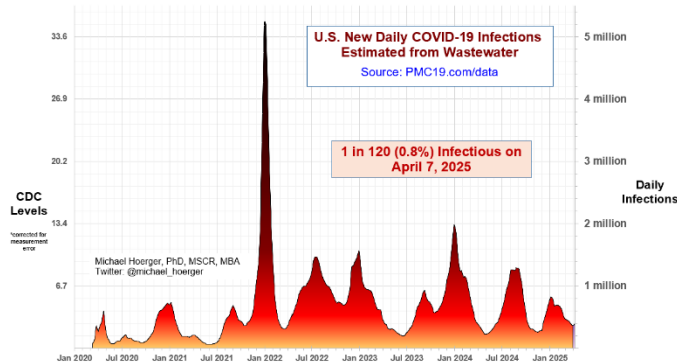
PMC Regional Multiplier*
0.314

* 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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Monthly Forecast

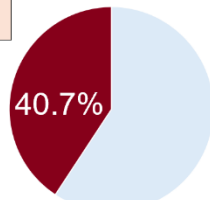
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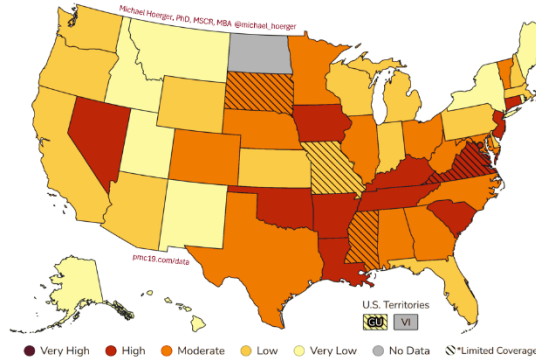
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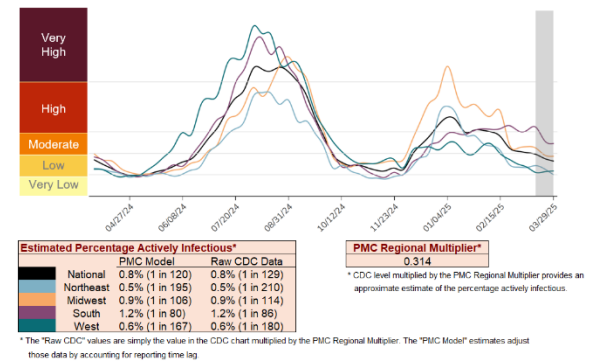


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COVID-19 Heat Map, CDC Data & Risk Levels, Higher Transmission in Deeper Red



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.