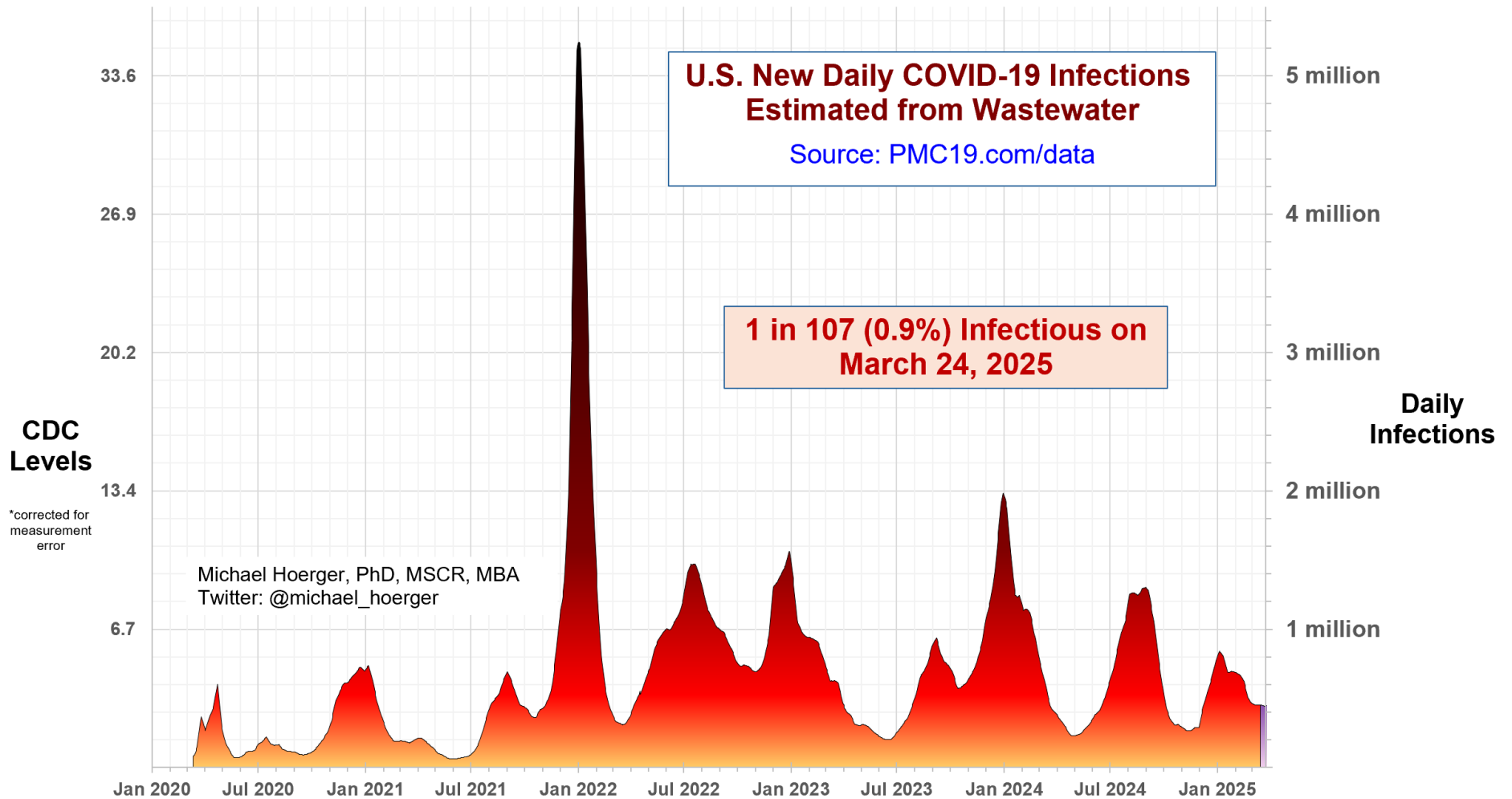


PMC U.S. COVID-19 Case Estimation and Forecasting Model: Report for March 24, 2025, pmc19.com/data

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



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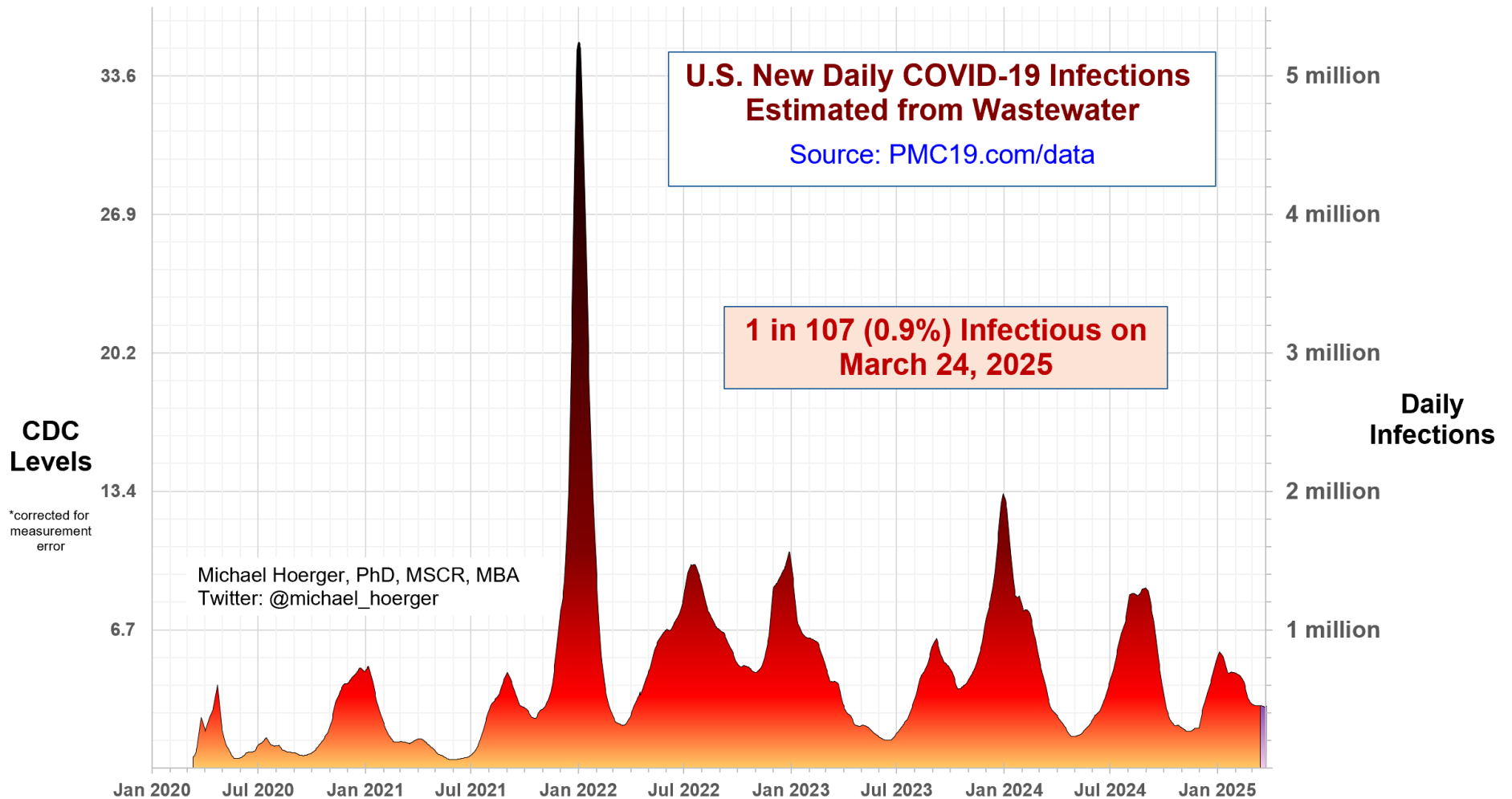
Announcements

Data Quality Note: The CDC (80% model weight) reported data this week, and Biobot (20% model weight) also provided an 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 Updates: The Technical Appendix has been updated to reflect that the national COVID-19 heat map now uses a gradient from yellow-to-red instead of pink-to-red colors. Not requiring an Appendix update, the year-over-year map has added Year 6, and the regression model has incorporated the median updates and most recent year of data with minimal impact.

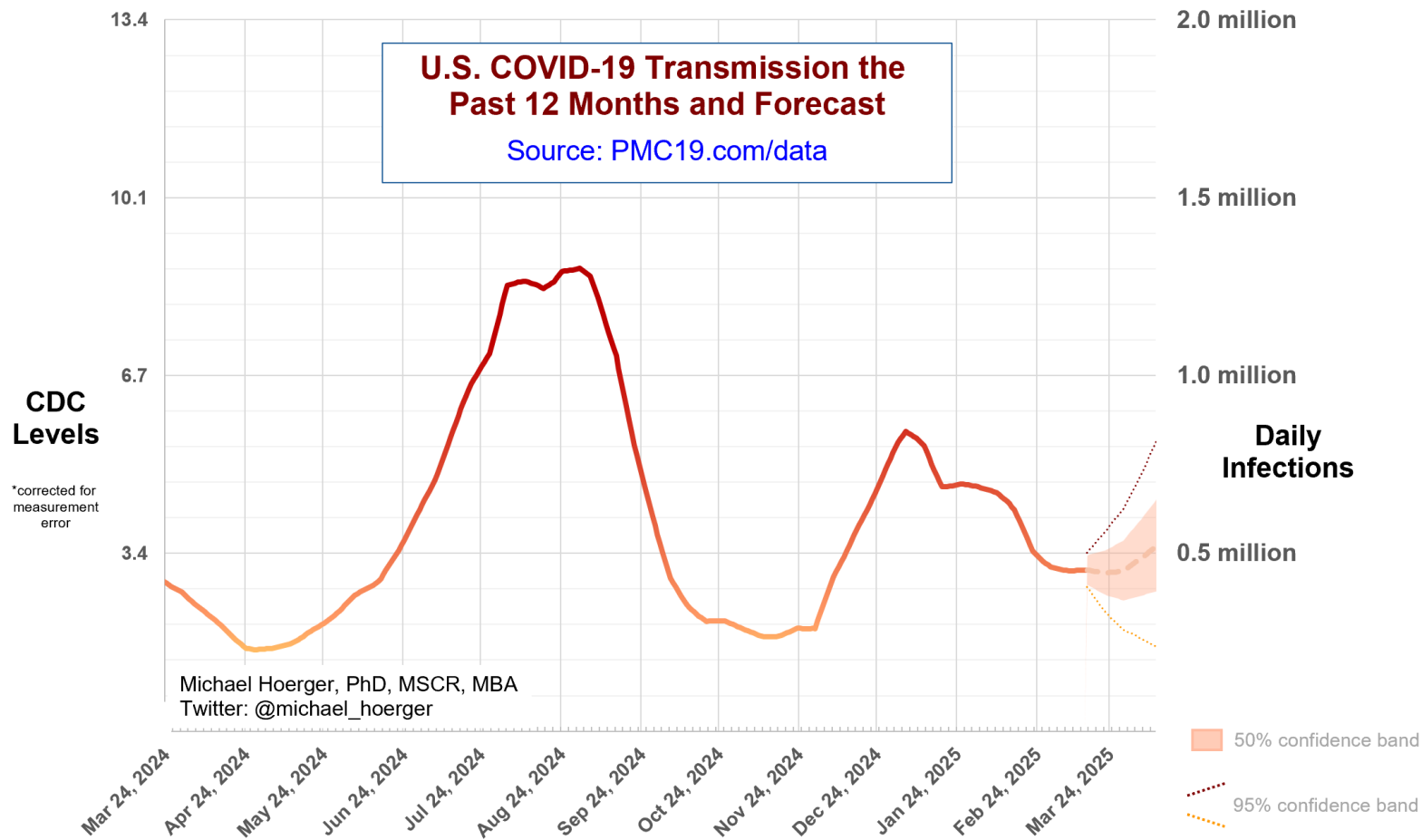
The Big-Picture View of the Pandemic

We are in a high “lull” between Covid waves. Current transmission barely falls below our “non-wave” criterion, which is troubling if the lull does not fall significantly further. Presently, an estimated 0.9% (1 in 107 people) are actively infectious. Such levels have been similar in recent weeks.



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 average (dashed) line reflects all possible scenarios with an emphasis on steady transmission the next several weeks. Note that the typical level of error in real-time reporting is about 50,000 daily infections, so the average estimate of transmission the next month is more or less the same (400-600k daily infections). If real-time estimates over-report, we could head toward a more typical lull. If LP.8.1 finally picks up, as some have suggested of late, a slightly higher trajectory remains possible.



Supplemental Statistics

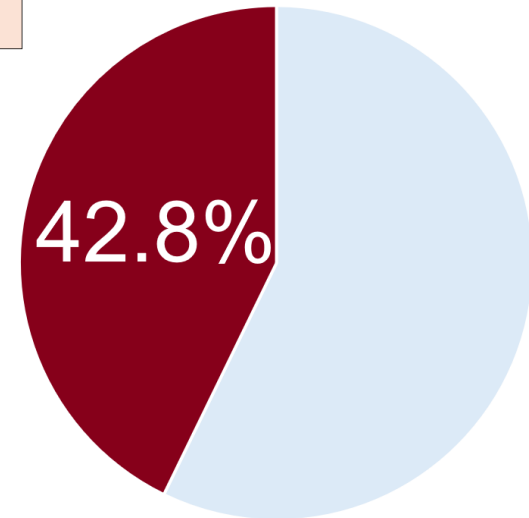
These supplemental statistics may prove useful in conversations about transmission and mitigation. In a group of 40-50 people, there is a 1-in-3 chance of exposure if average risk and no firm testing/isolation policies. Large social gatherings may still lead to “surprise” infections.

Current Levels for Mar 24, 2025
% of the Population Infectious 0.9% (1 in 107)
New Daily Infections 446,000
New Weekly Infections 3,122,000
Resulting Weekly Long COVID Cases 156,000 to 624,000

Monthly Forecast
Average % of the Population Infectious 1.0% (1 in 96)
Average New Daily Infections 496,567
New Infections During the Next Month 14,897,000
Resulting Monthly Long COVID Cases 745,000 to 2,979,000

Running Totals
Infections Nationwide in 2025 50,757,000
Average Number of Infections Per Person All-Time, U.S. 3.71

How Does Risk Increase with More Social Contacts?			
Number of People	Chances Anyone Is Infectious	Number of People	Chances Anyone Is Infectious
1	0.9%	15	13.1%
2	1.9%	20	17.1%
3	2.8%	25	20.9%
4	3.7%	30	24.5%
5	4.6%	35	28.0%
6	5.5%	40	31.3%
7	6.4%	50	37.4%
8	7.2%	75	50.5%
9	8.1%	100	60.8%
10	8.9%	300	94.0%



There is more COVID-19 transmission today than during 42.8% of the pandemic.

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

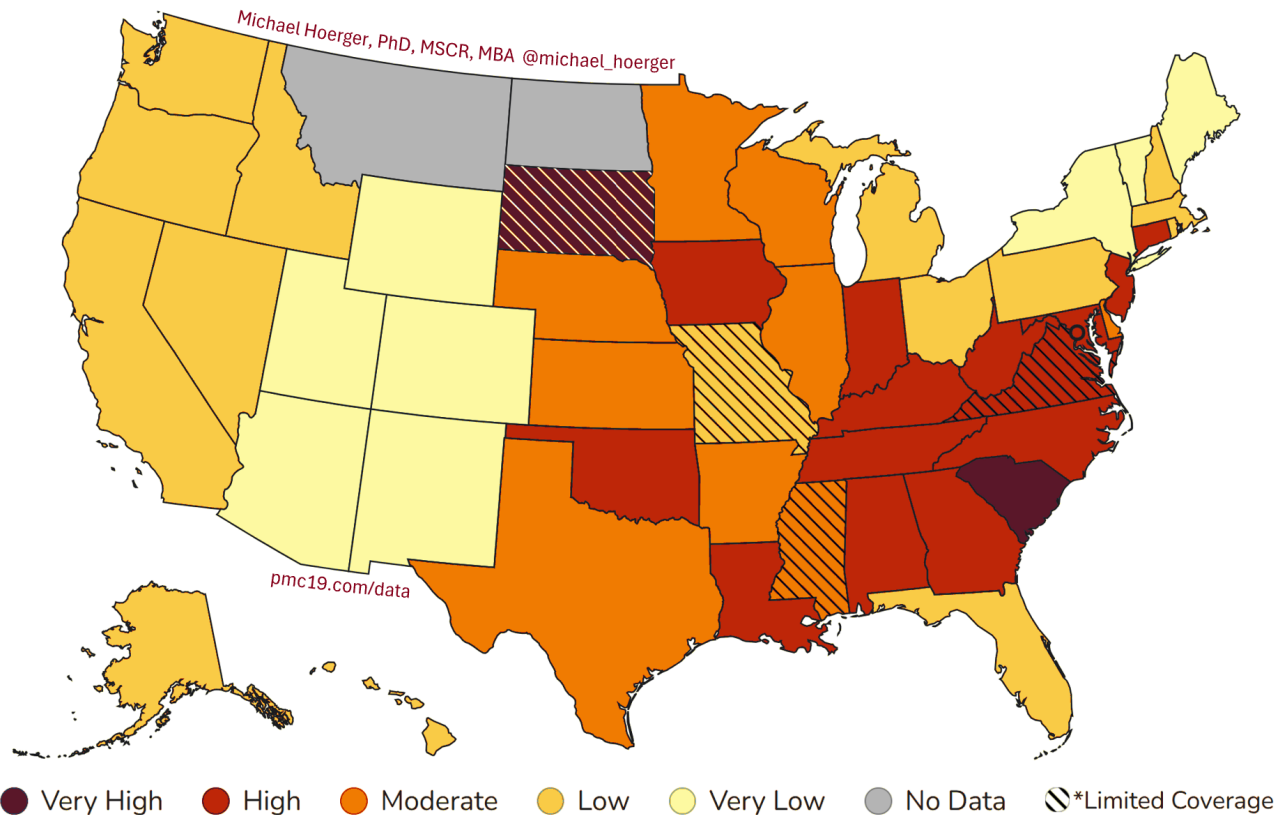
Michael Hoerger, PhD, MSCR, MBA
Twitter: @michael_hoerger

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 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>

South Carolina and South Dakota are in the CDC ‘Very High’ transmission range.

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



Regional Case Estimation

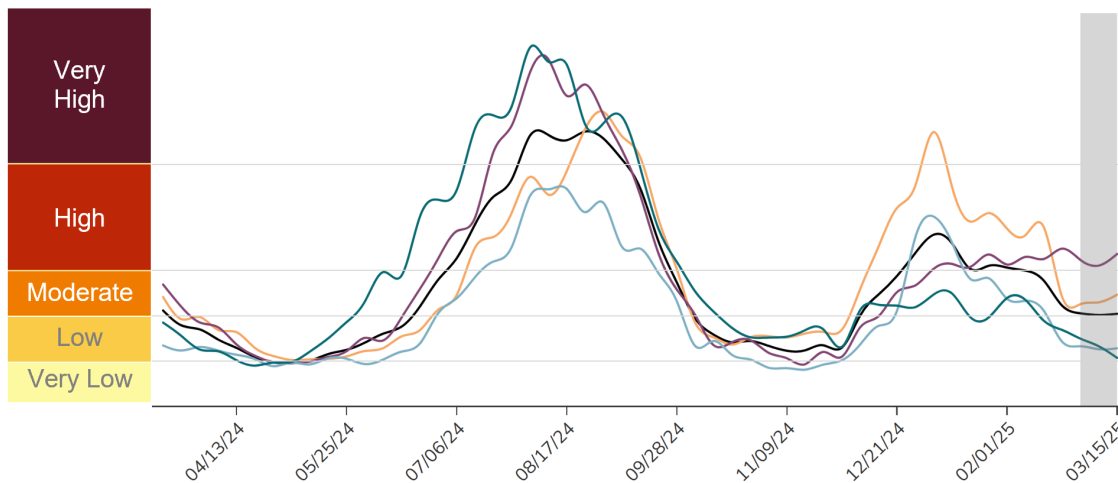
This graph from the CDC shows regional variation in transmission. You can use the “PMC Regional Multiplier” to get a ballpark estimate the proportion of a given region actively infectious with COVID-19 (see Technical Appendix document on the dashboard page). Note the persistent transmission in the South.

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	0.9% (1 in 107)	1.0% (1 in 104)
Northeast	0.6% (1 in 171)	0.6% (1 in 167)
Midwest	1.1% (1 in 89)	1.2% (1 in 87)
South	1.5% (1 in 65)	1.6% (1 in 64)
West	0.5% (1 in 204)	0.5% (1 in 199)

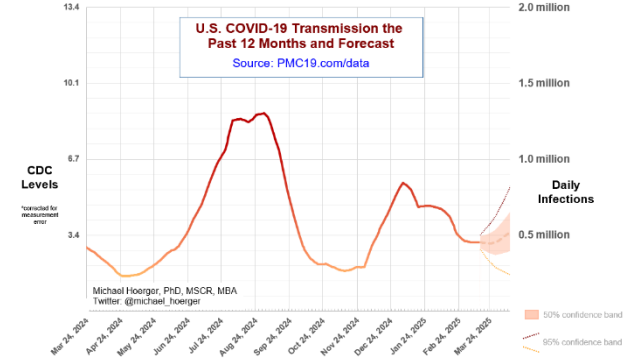
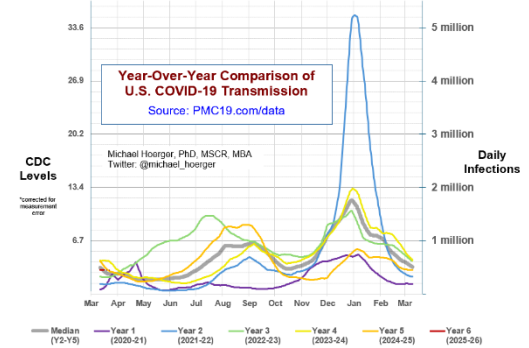
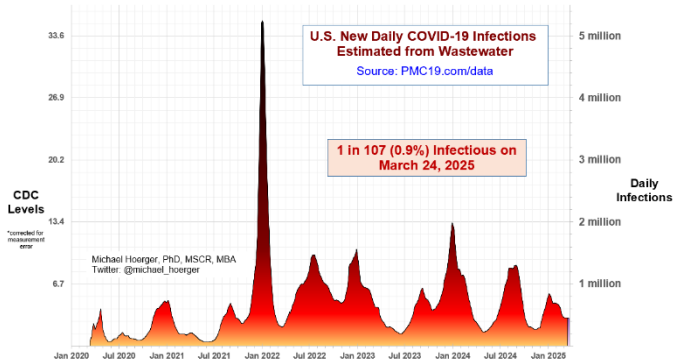
PMC Regional Multiplier*
0.312

* 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



Current Levels for Mar 24, 2025

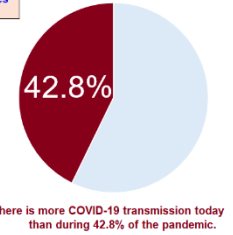
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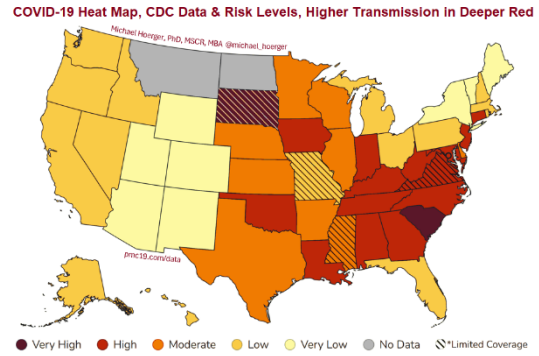


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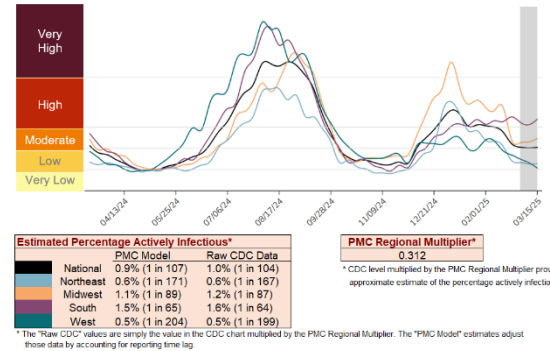
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CDC Regional Levels with PMC Estimates of the Percentage Actively Infectious



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