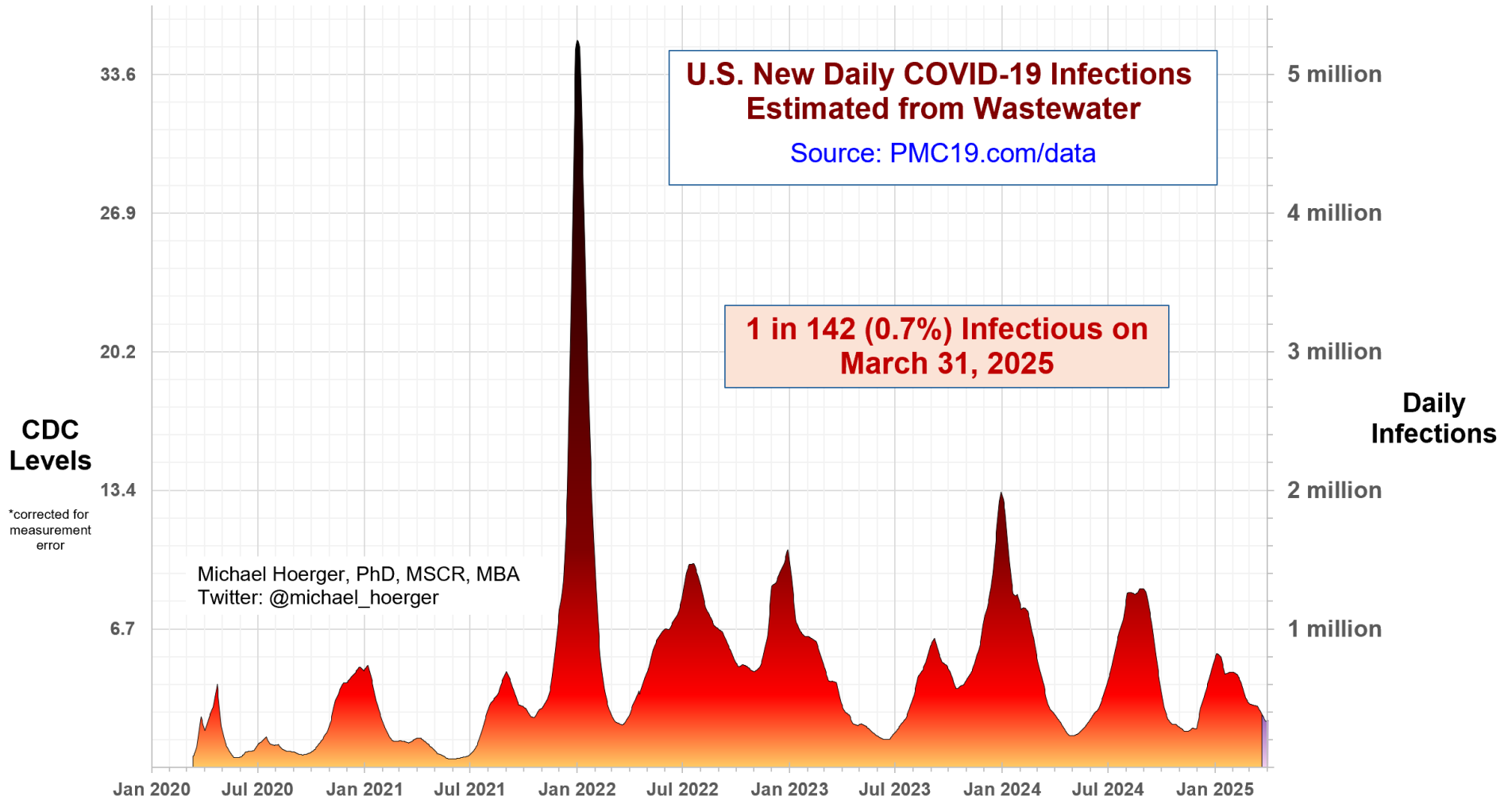


PMC U.S. COVID-19 Case Estimation and Forecasting Model: Report for March 31, 2025, pmc19.com/data

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



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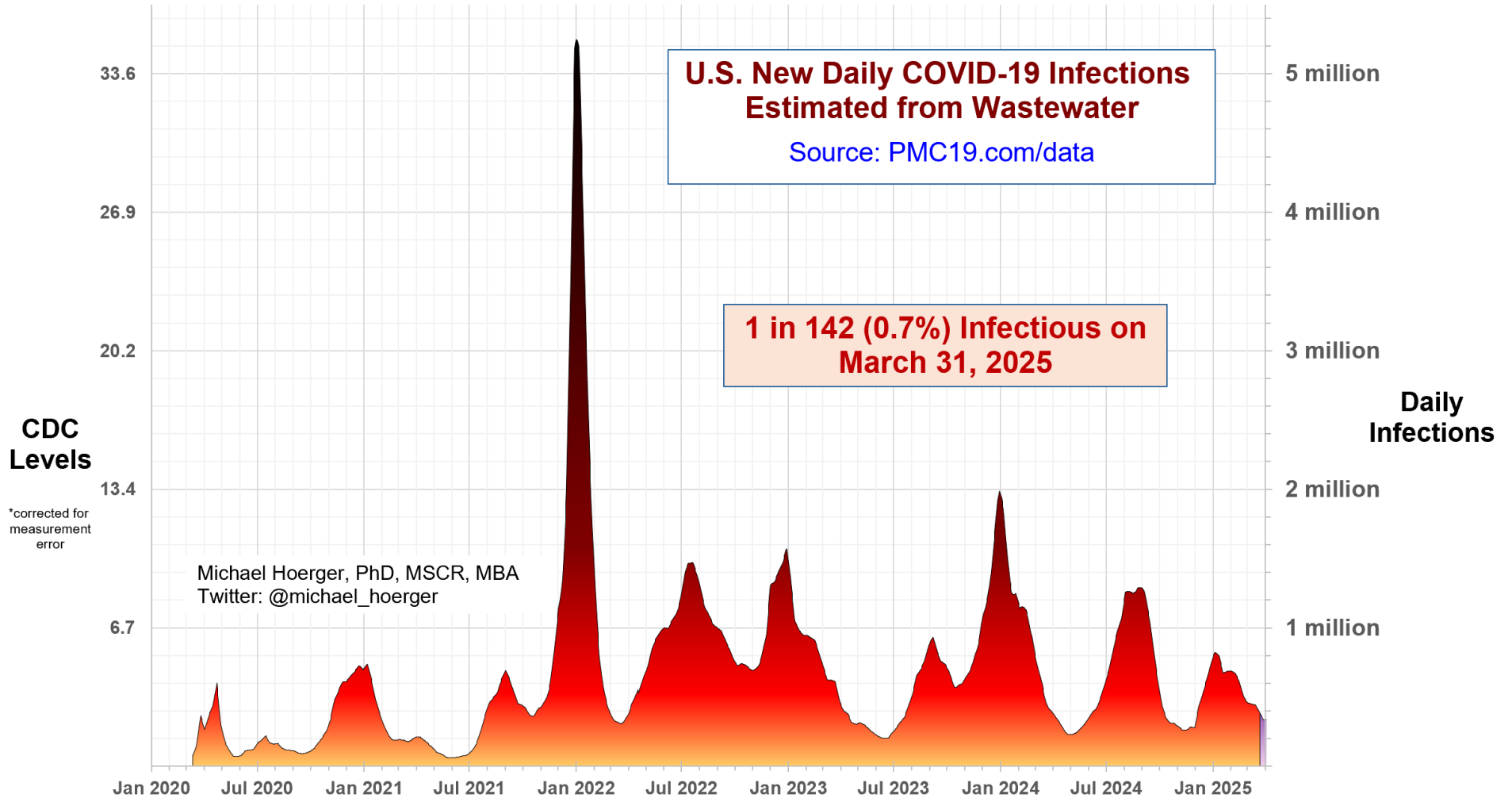
Announcements

Data Quality Note: The CDC (80% model weight) reported data this week, and Biobot (20% model weight) also provided an update. Biobot's update was late, so a few "early release" stats we posted on social media on Friday have been corrected negligibly. 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 are described in the Technical Appendix and a new video.

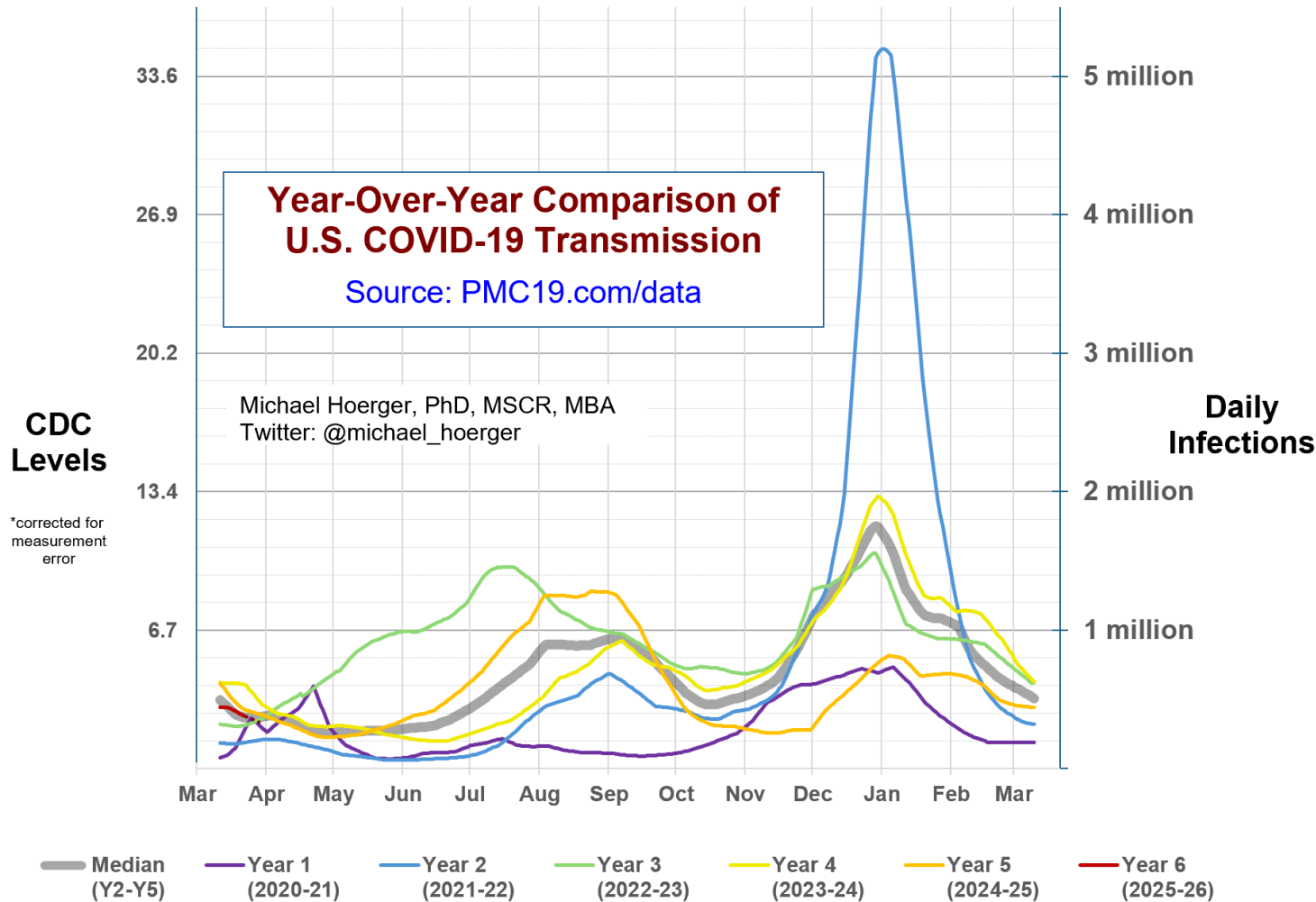
The Big-Picture View of the Pandemic

We are in a high “lull” between Covid waves. Presently, an estimated 0.7% (1 in 142 people) are actively infectious. CDC values were retroactively corrected downward, so current transmission is slightly lower than anticipated.



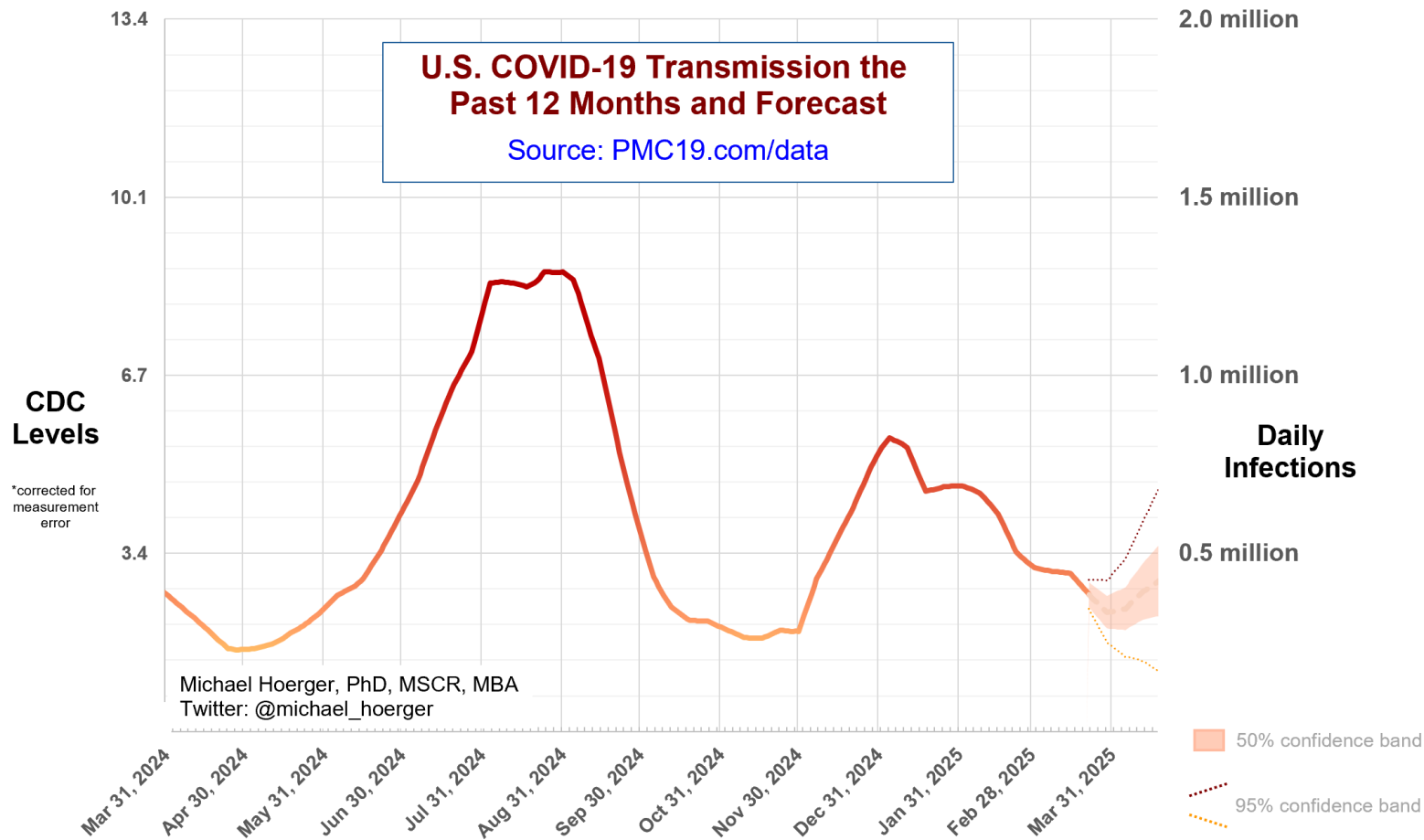
Year-Over-Year Comparisons

The year-over-year graph shows how the current wave (orange going into red) departs from the pattern of prior years. See the late onset, yet the peak occurring very near the “usual” time point. The wave is unique with an extended phase of quite flat substantial transmission with approximately a half million daily infections.



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 (300-500k daily infections). If real-time estimates over-report, we could head closer to 200k daily. If LP.8.1 finally picks up, as some have suggested of late, a slightly higher trajectory remains possible.



Supplemental Statistics

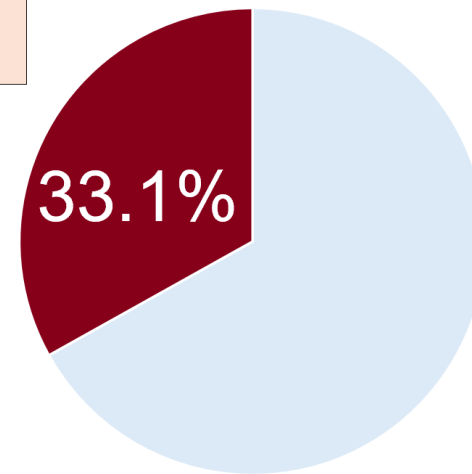
These supplemental statistics may prove useful in conversations about transmission and mitigation. In a large event of 100 people, there is a 50% chance of exposure if average risk and no firm testing/isolation policies. **The updated table now shows that the infections this week are anticipated to result in 800-1,400 excess deaths. The infections over the next month are expected to result in 4,300-7,100 excess deaths.**

Current Levels for Mar 31, 2025	
% of the Population Infectious	0.7% (1 in 142)
New Daily Infections	337,000
New Weekly Infections	2,359,000
Resulting Weekly Long COVID Cases	118,000 to 472,000
Resulting Weekly Excess Deaths	800 to 1,400

Monthly Forecast	
Average % of the Population Infectious	0.8% (1 in 120)
Average New Daily Infections	397,233
New Infections During the Next Month	11,917,000
Resulting Monthly Long COVID Cases	596,000 to 2,383,000
Resulting Monthly Excess Deaths	4,300 to 7,100

Running Totals	
Infections Nationwide in 2025	52,303,000
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	0.7%	15	10.1%
2	1.4%	20	13.2%
3	2.1%	25	16.2%
4	2.8%	30	19.1%
5	3.5%	35	21.9%
6	4.2%	40	24.7%
7	4.8%	50	29.8%
8	5.5%	75	41.2%
9	6.2%	100	50.7%
10	6.8%	300	88.0%



There is more COVID-19 transmission today than during 33.1% of the pandemic.

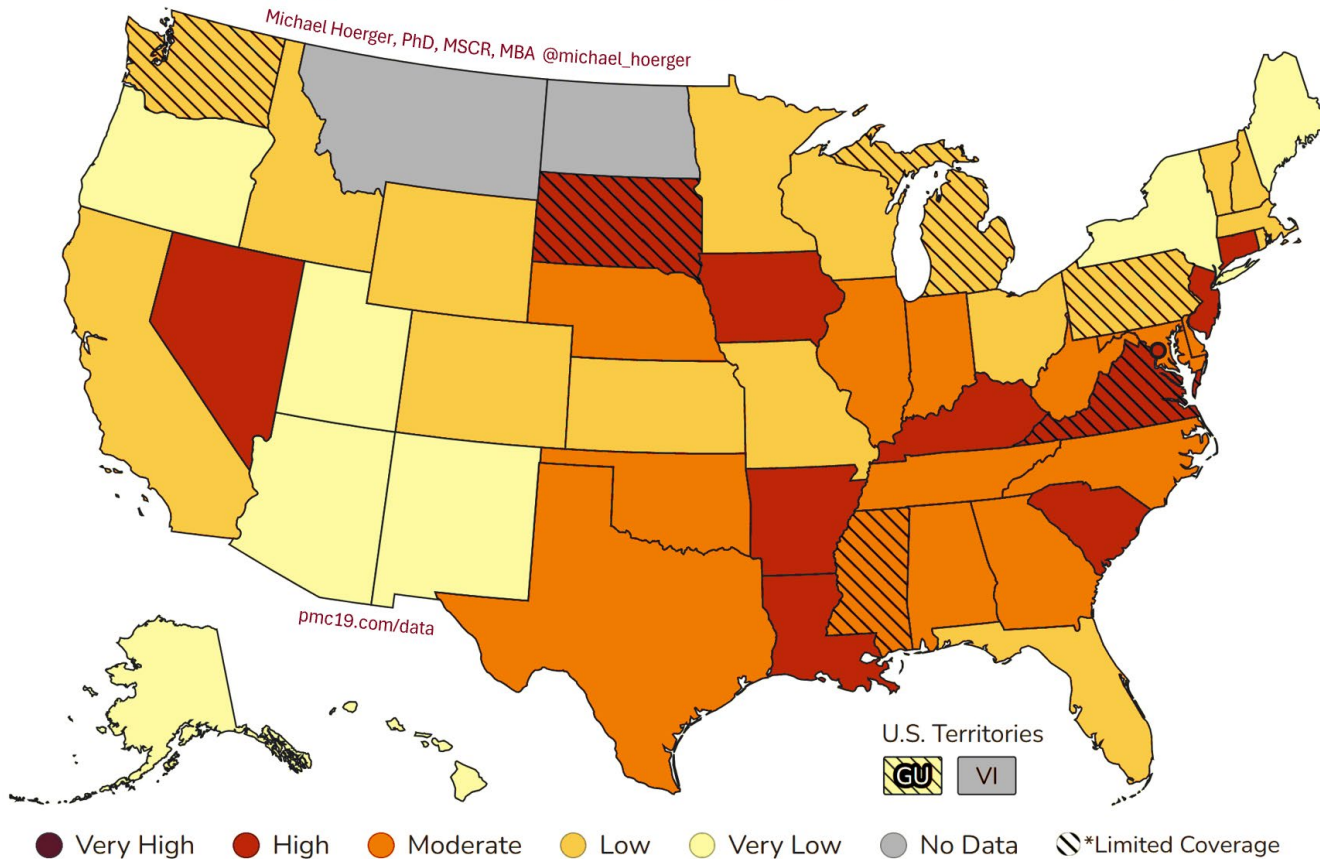
Assumes no testing/isolation protocols (U.S. only)
 pmc19.com/data

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>

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



Regional Case Estimation

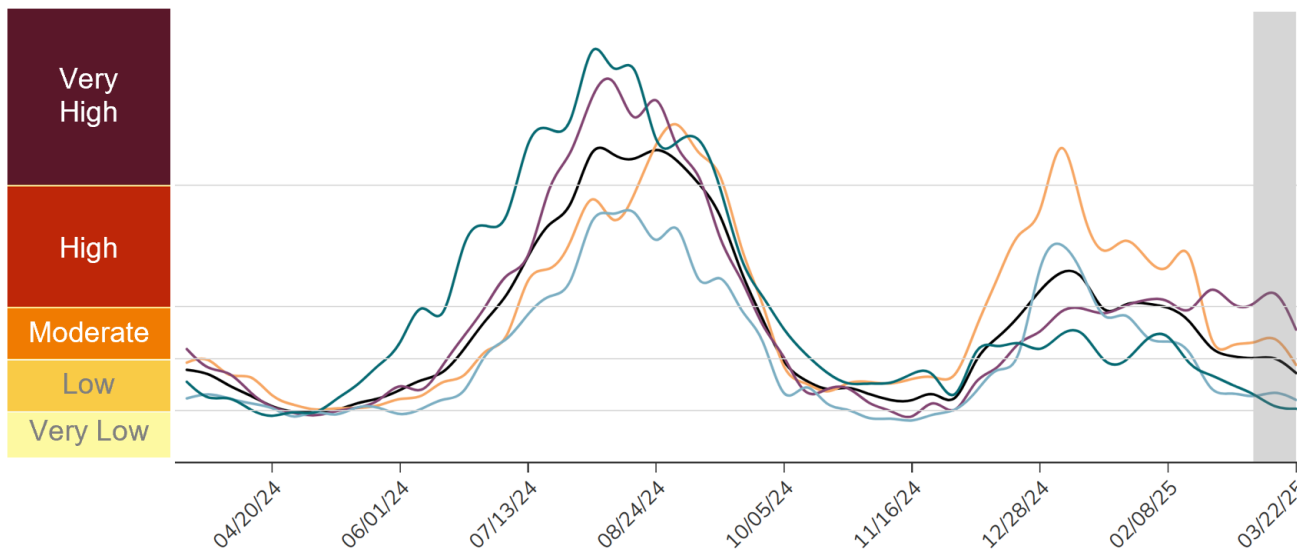
This graph from the CDC shows regional variation in transmission. You can use the “PMC Regional Multiplier” to get a ballpark estimate the proportion of a given region actively infectious with COVID-19 (see Technical Appendix document on the dashboard page).






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	0.7% (1 in 142)	0.8% (1 in 123)
	Northeast	0.5% (1 in 203)	0.6% (1 in 176)
	Midwest	0.8% (1 in 130)	0.9% (1 in 113)
	South	1.0% (1 in 95)	1.2% (1 in 83)
	West	0.4% (1 in 236)	0.5% (1 in 205)

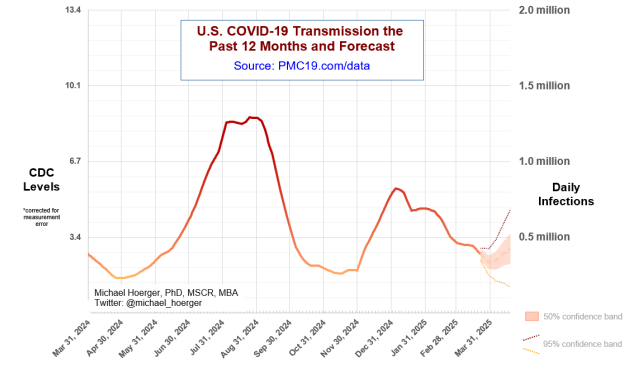
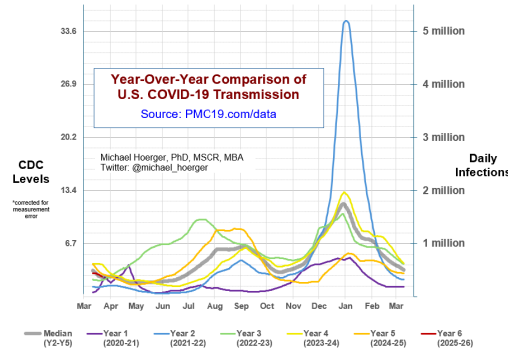
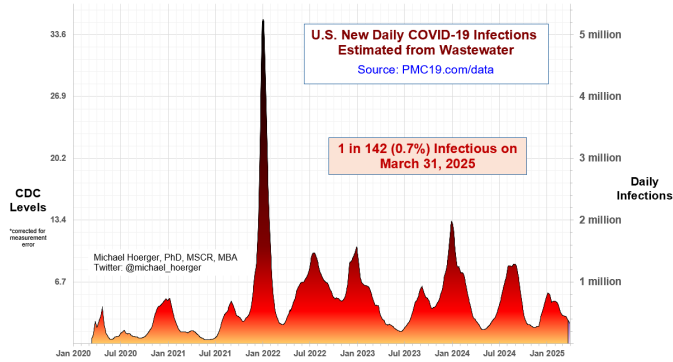
PMC Regional Multiplier*
0.314

* 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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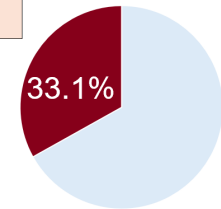
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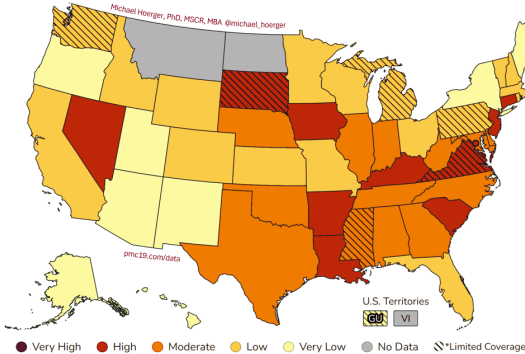
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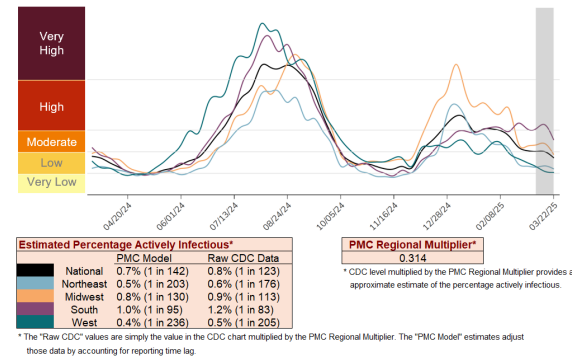


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A separate document called a Technical Appendix appears on the dashboard page and has more methodologic info.