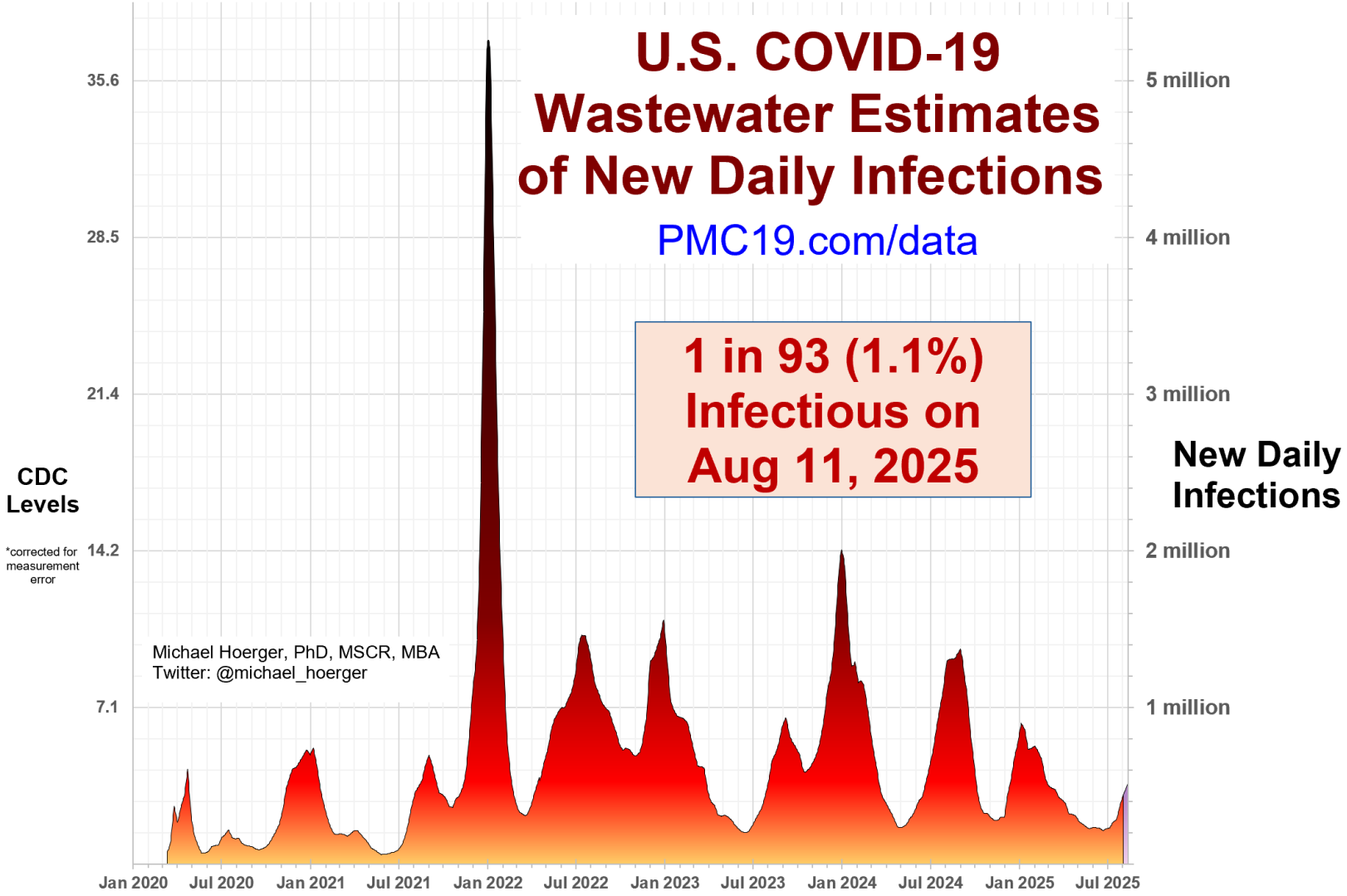
PMC U.S. COVID-19 Case Estimation and Forecasting Model: Report for August 11, 2025 pmc19.com/data

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



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Announcements

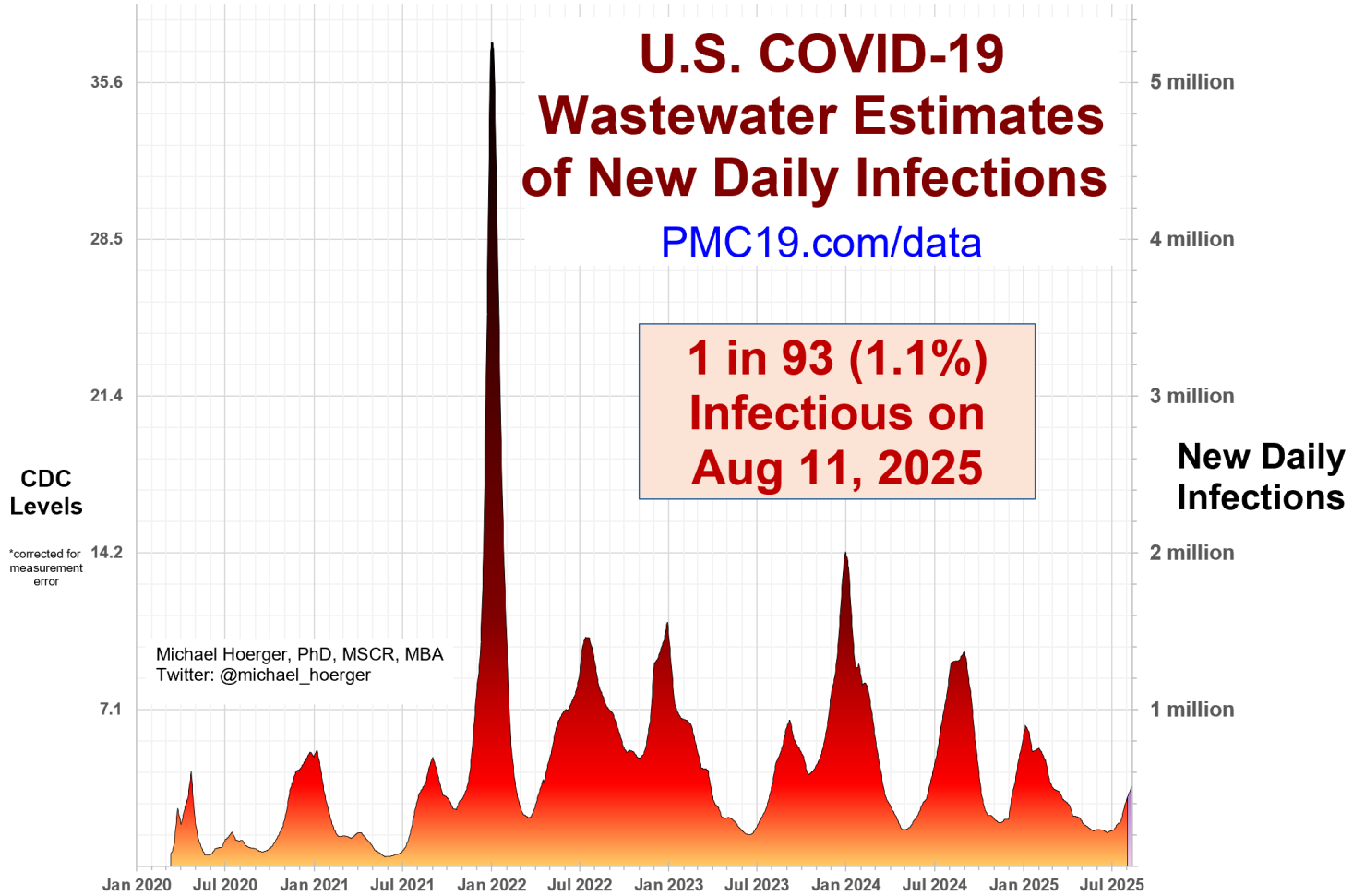
Data Quality Note: Long-term data quality is 'high,' but real-time data quality is 'low' and prone to retroactive correction. The CDC (80% model weight) has limited or no data for 3 states, including New York state. New York's system is getting a major update, and last known on the state's dashboard, transmission was high in many regions surrounding NYC. We may unfortunately see a retroactive upward correction there, if not a missed state-level wave. Biobot (20% model weight) typically reports on Thursday but has not updated. These constraints add uncertainty to forecasts beyond historical norms and will lead to inconsistencies in media reporting about specific variants, wave timing and peaks, and local transmission. Assume the worst, hope for the best, and monitor closely. On the website, we added more localized U.S. data and international dashboards to help with this uncertainty.

Announcements:

- Dr. Malek made this helpful video for clinicians: https://www.youtube.com/watch?v=GPUTTjjdT4A
- The TODAY Show is tracking vaccinations and transmission, including using the PMC dashboard: https://www.today.com/health/coronavirus/covid-2025-summer-surge-rcna218754
- Drs. Hoerger, Stone, and Tamargo will host a virtual back-to-school forum on August 17. Register to join: http://bit.ly/MTAHealthForum

The Big-Picture View of the Pandemic

Transmission is rising. Note, however, that last week's real-time estimates were correctly slightly downward, so the national statistics this week may seem relatively flat. Expect further corrections, upward or downward, as low-quality real-time data transition to high-quality corrected data. An estimated 1 in 93 people are actively infectious. The lull point appears to have occurred at June 21 with 214,000 new daily infections.



Statistical Summary

Transmission is presently higher than during the majority of the ongoing pandemic. Presently, we are seeing an estimated nearly 3.6 million new weekly infections, likely to result in 179-717K Long COVID cases, and 1,300-2,100 excess deaths in the U.S. In a room of 25-30 people of average risk, there would be a 1 in 4 chance of exposure. Although transmission is rising in most states, there is significant geographic variation. Check your local levels using the new information provided on the dashboard website.

Current Levels for Aug 11, 2025
% of the Population Infectious
1.1% (1 in 93)
New Daily Infections
512,000
New Weekly Infections
3,584,000
Resulting Weekly Long COVID Cases
179,000 to 717,000
Resulting Weekly Excess Deaths
1,300 to 2,100

Monthly Forecast
Average % of the Population Infectious
1.5% (1 in 65)
Average New Daily Infections
733,233
New Infections During the Next Month
21,997,000
Resulting Monthly Long COVID Cases
1,100,000 to 4,399,000
Resulting Monthly Excess Deaths
7,900 to 13,100

Running Totals
Infections Nationwide in 2025
95,754,000
Average Number of Infections Per Person All-Time, U.S.
3.87

How Does Risk Increase with More Social Contacts?

Number of People	Chances Anyone Is Infectious	Number of People	Chances Anyone Is Infectious
1	1.1%	15	14.9%
2	2.1%	20	19.4%
3	3.2%	25	23.6%
4	4.2%	30	27.6%
5	5.2%	35	31.4%
6	6.3%	40	35.0%
7	7.3%	50	41.6%
8	8.3%	75	55.4%
9	9.2%	100	65.9%
10	10.2%	300	96.0%

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

Michael Hoerger, PhD, MSCR, MBA
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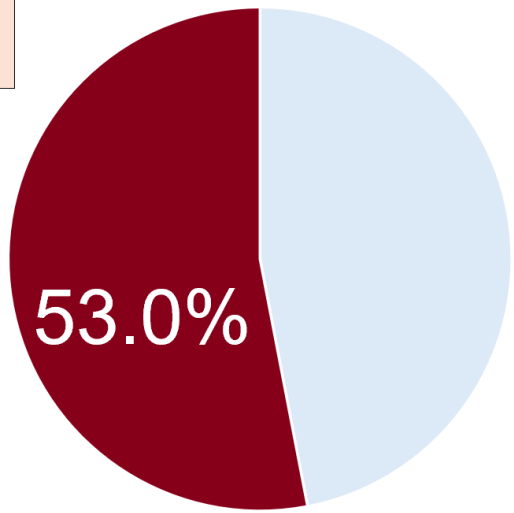
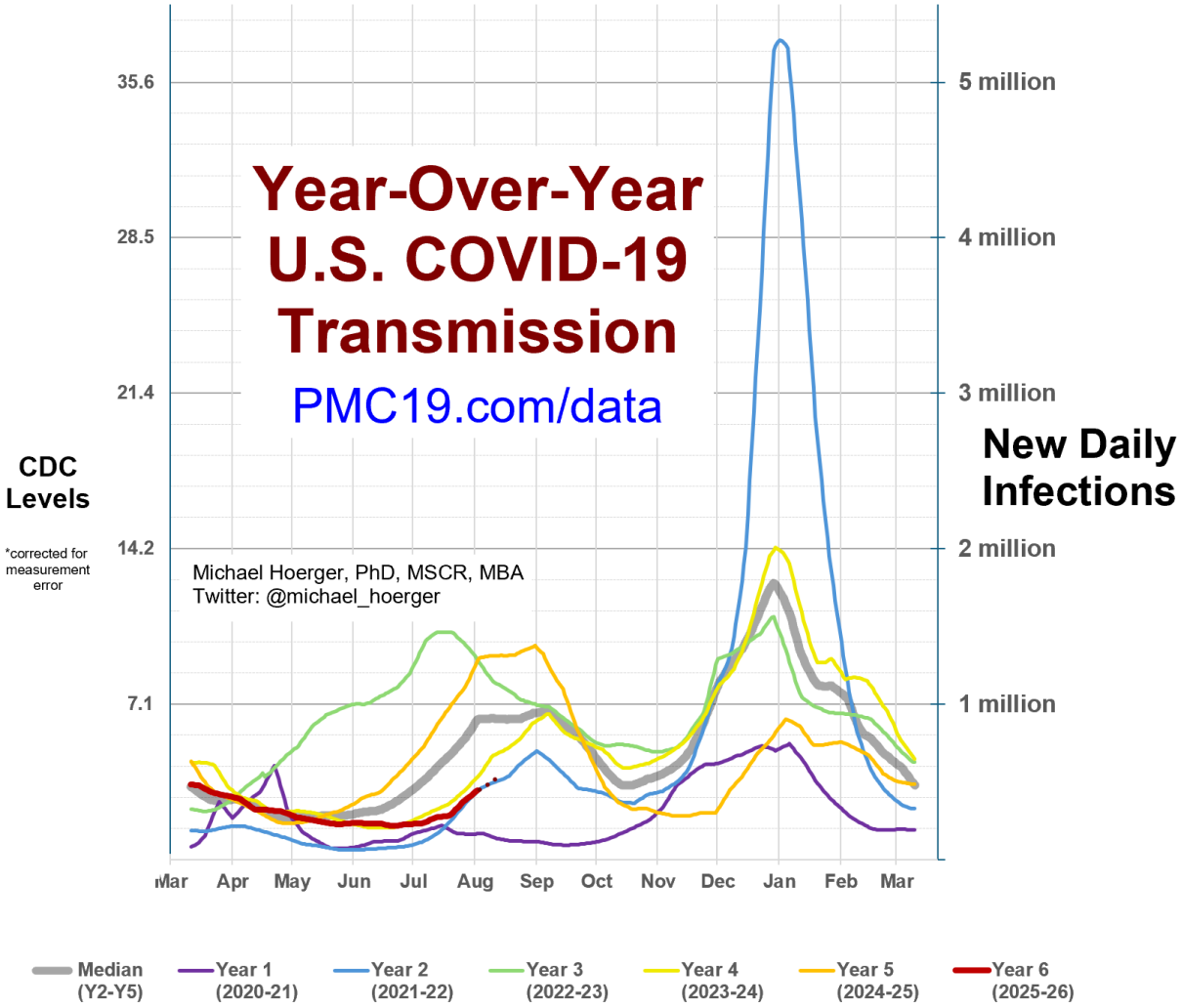


There is more COVID-19 transmission today than during 53% of the pandemic.

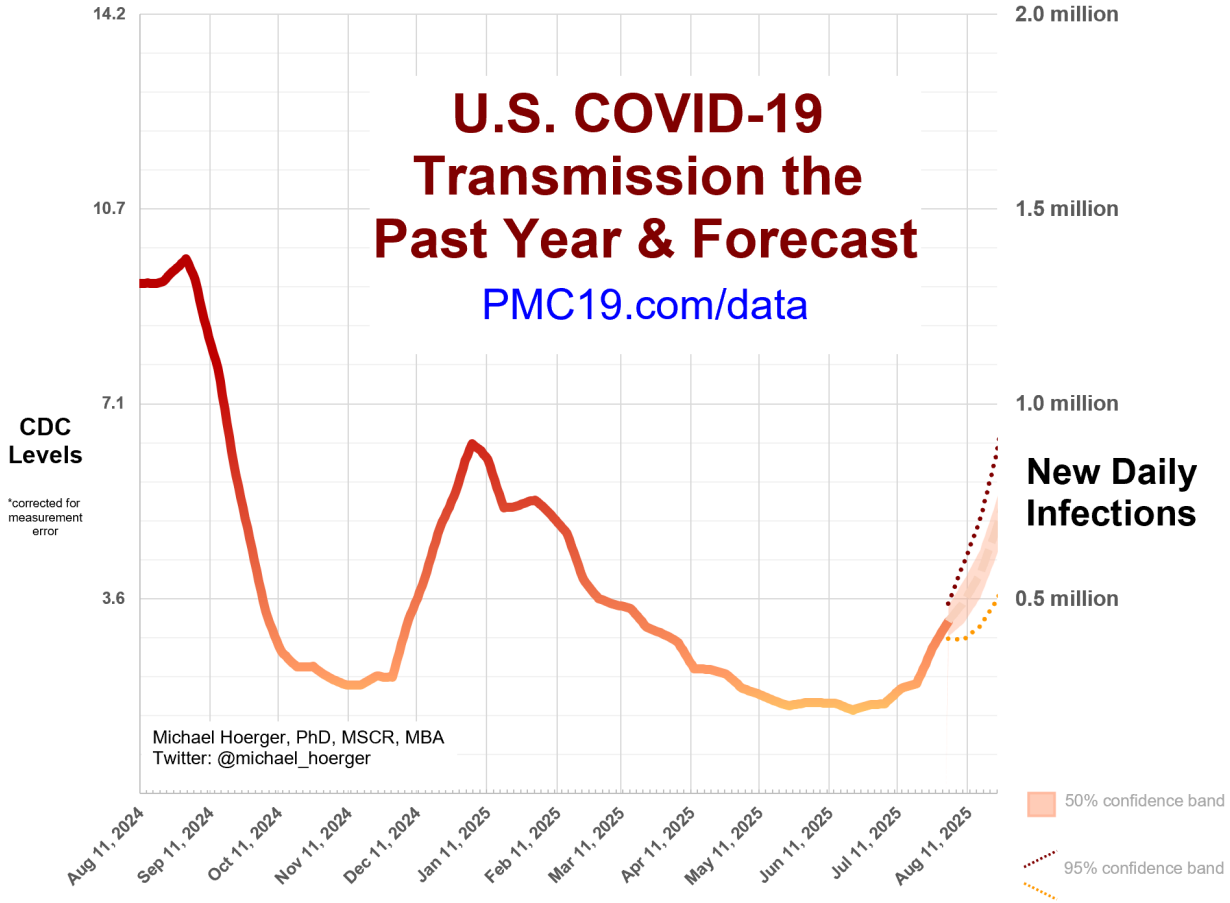
Year-Over-Year Comparisons

The year-over-year graph shows current transmission along the red line. The solid line represents the real-time data and dotted line the forecast. The year-over-year data increasingly look like the Delta wave (blue line). However, with minor upward retroactive corrections, transmission like two years ago (yellow line) remains a possibility.



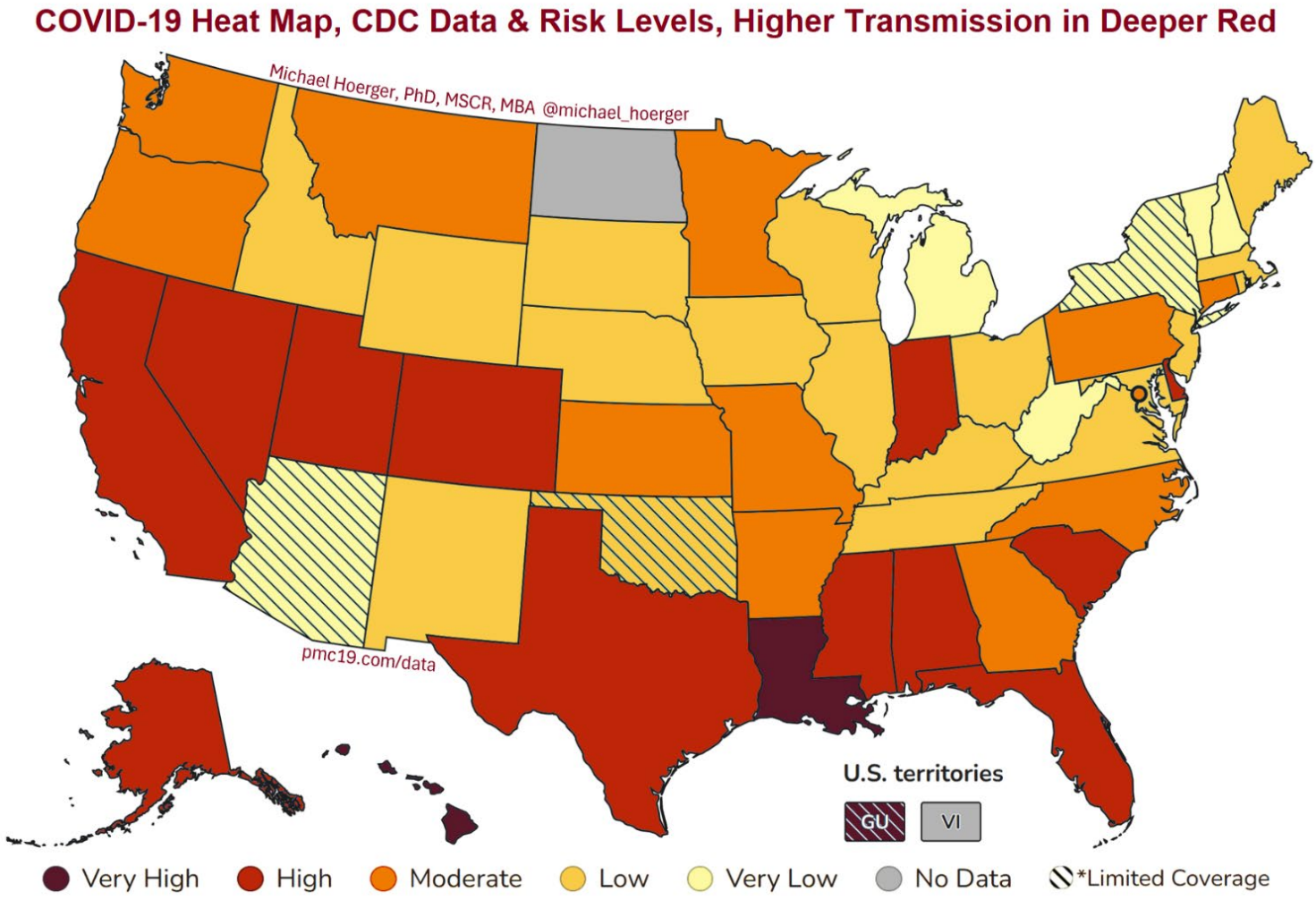
Close-up on the Current Forecast

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. With low-quality real-time data coming in, the forecast only shows 3 weeks forward from the most recent data point provided. Currently, the U.S. is seeing approximately 500,000 new daily infections, but that estimate could be anywhere from 400,000 to 600,000 daily, based on eventual retroactive corrections. Barring retroactive downward corrections, the 11th wave is in full swing.



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

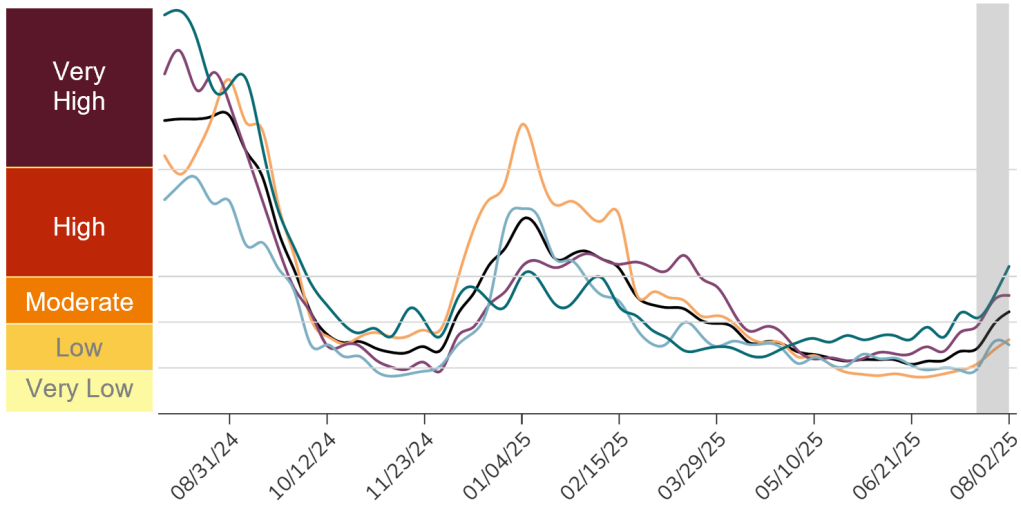


Regional Case Estimation

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	1.1% (1 in 93)	1.0% (1 in 99)
Northeast	0.7% (1 in 137)	0.7% (1 in 146)
Midwest	0.8% (1 in 128)	0.7% (1 in 136)
South	1.2% (1 in 80)	1.2% (1 in 86)
West	1.5% (1 in 65)	1.5% (1 in 69)

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

PMC Multiplier*
0.293

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

PMC COVID-19 Dashboard

Here is the complete PMC COVID-19 Dashboard. Please share the images across social media and other websites.
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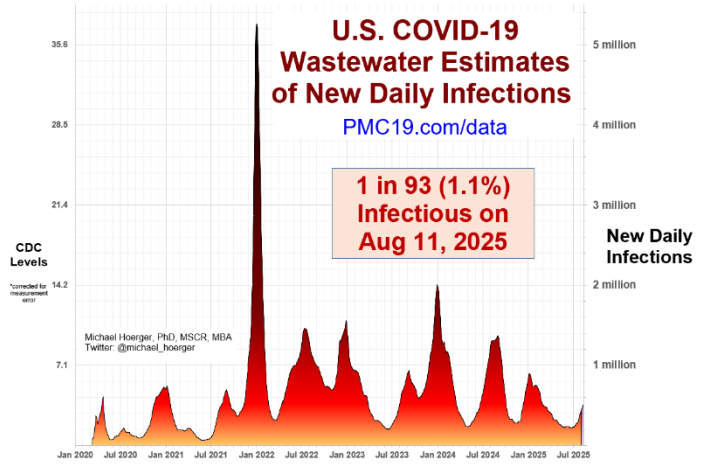

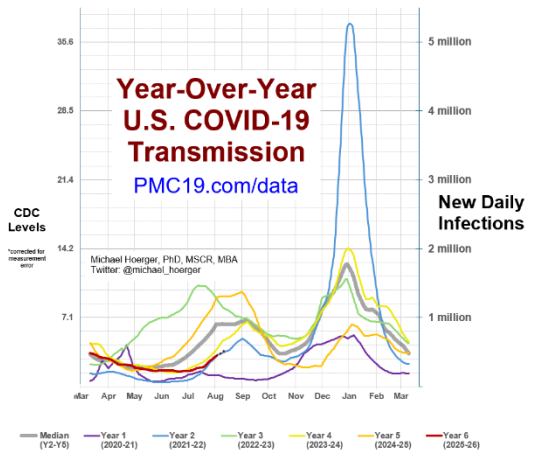

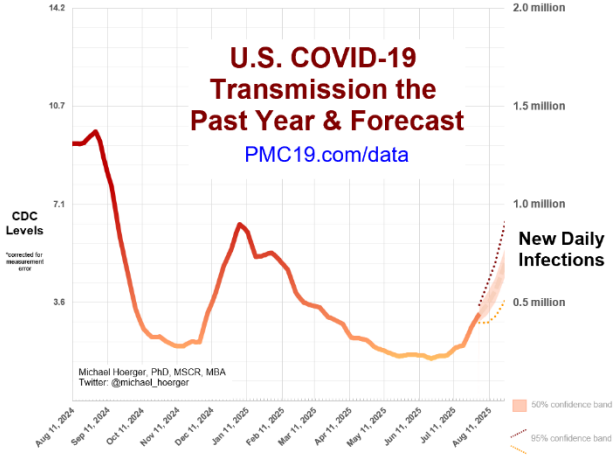

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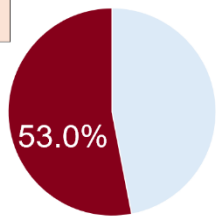

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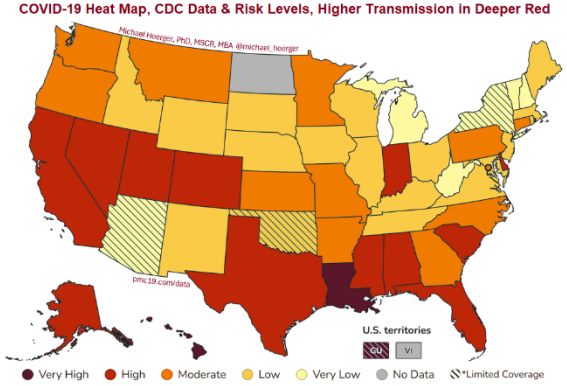
COVID-19 Heat Map, CDC Data & Risk Levels, Higher Transmission in Deeper Red



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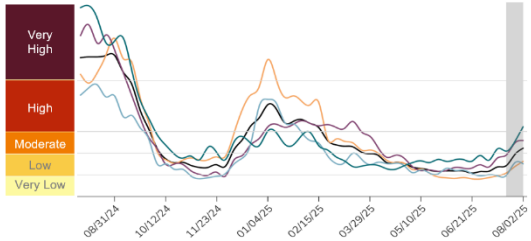

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A separate document called a Technical Appendix appears on the dashboard page and has more methodologic info.