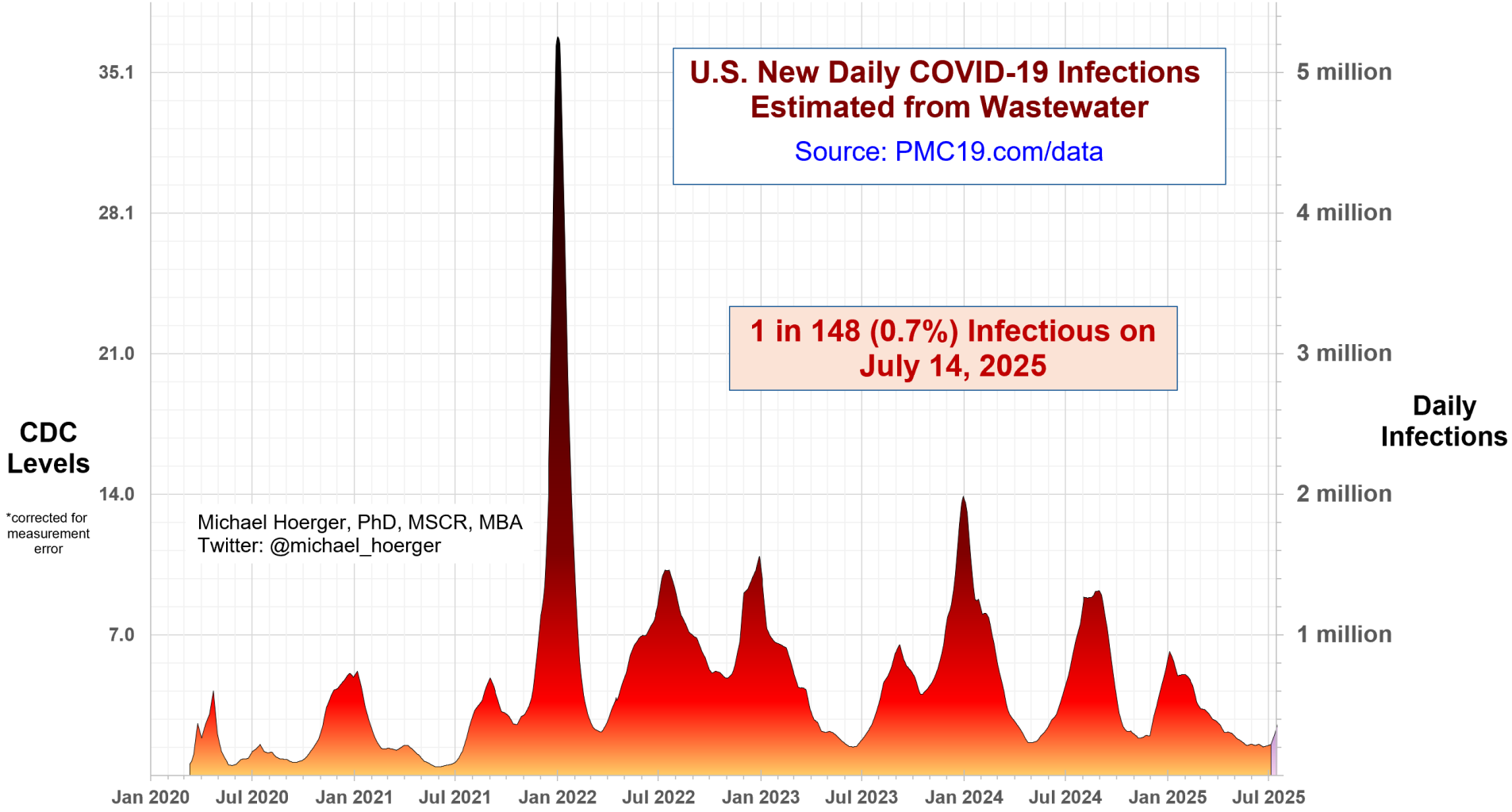
# PMC U.S. COVID-19 Case Estimation and Forecasting Model: Report for July 14, 2025 pmc19.com/data

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

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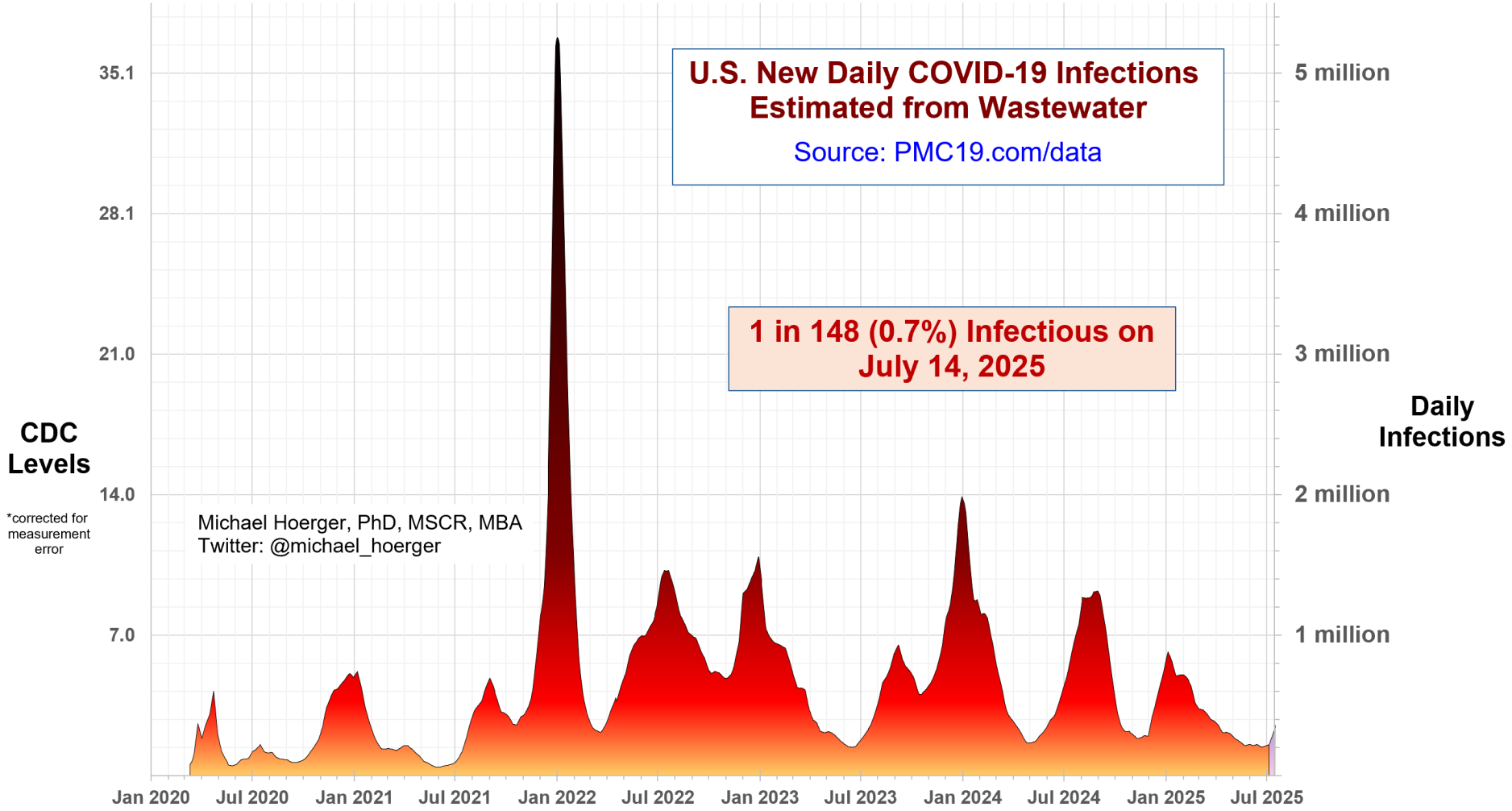
# Announcements

**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 11 states, and Biobot (20% model weight) has not reported in >2 weeks. These constraints add uncertainty to forecasts beyond historical norms. These constraints will also 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 links to more localized U.S. data and international dashboards to help with this uncertainty.

# The Big-Picture View of the Pandemic

Transmission picked up markedly in the most recent CDC data. An estimated 1 in 148 people are actively infectious. The lull point presently appears to have occurred around June 21. Estimates and the forecast may vary as missing data are retroactively updated and CDC higher-level estimates get corrected.



# Statistical Summary

Presently, we are seeing an estimated nearly 2.3 million weekly infections, likely to result in 113-454K Long COVID cases, and 800-1,300 excess deaths in the U.S. In a room of 40-50 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 at the bottom of the dashboard.

| Current Levels for Jul 14, 2025 |
|---|
| **% of the Population Infectious** |
| 0.7% (1 in 148) |
| **New Daily Infections** |
| 324,000 |
| **New Weekly Infections** |
| 2,268,000 |
| **Resulting Weekly Long COVID Cases** |
| 113,000 to 454,000 |
| **Resulting Weekly Excess Deaths** |
| 800 to 1,300 |

| Monthly Forecast |
|---|
| **Average % of the Population Infectious** |
| 1.3% (1 in 80) |
| **Average New Daily Infections** |
| 598,767 |
| **New Infections During the Next Month** |
| 17,963,000 |
| **Resulting Monthly Long COVID Cases** |
| 898,000 to 3,593,000 |
| **Resulting Monthly Excess Deaths** |
| 6,400 to 10,700 |

| Running Totals |
|---|
| **Infections Nationwide in 2025** |
| 81,398,000 |
| **Average Number of Infections Per Person All-Time, U.S.** |
| 3.81 |

**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 | 9.7% |
| 2 | 1.4% | 20 | 12.7% |
| 3 | 2.0% | 25 | 15.6% |
| 4 | 2.7% | 30 | 18.5% |
| 5 | 3.3% | 35 | 21.2% |
| 6 | 4.0% | 40 | 23.8% |
| 7 | 4.6% | 50 | 28.8% |
| 8 | 5.3% | 75 | 40.0% |
| 9 | 5.9% | 100 | 49.3% |
| 10 | 6.6% | 300 | 87.0% |

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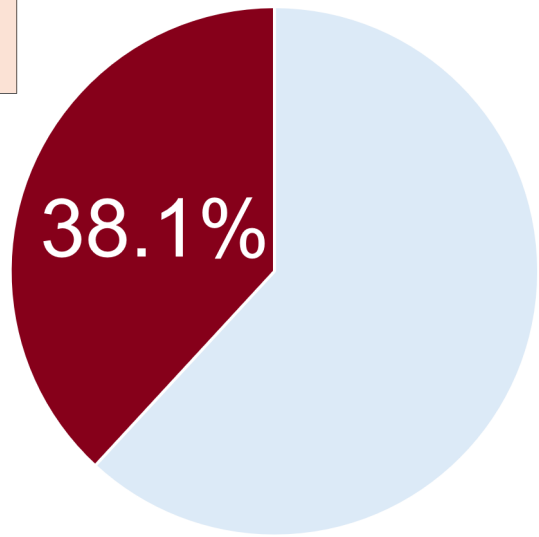
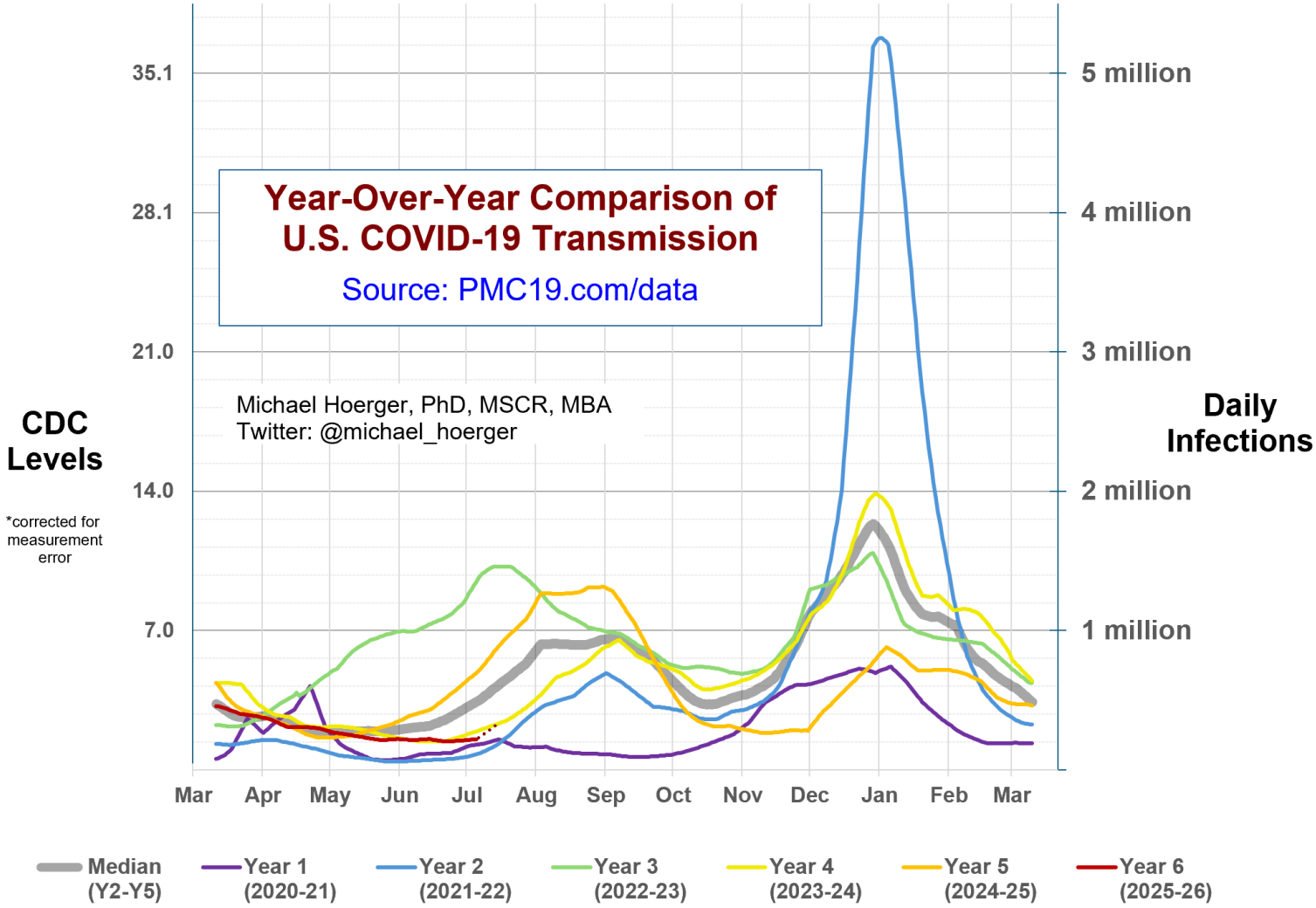



**There is more COVID-19 transmission today than during 38.1% of the pandemic.**

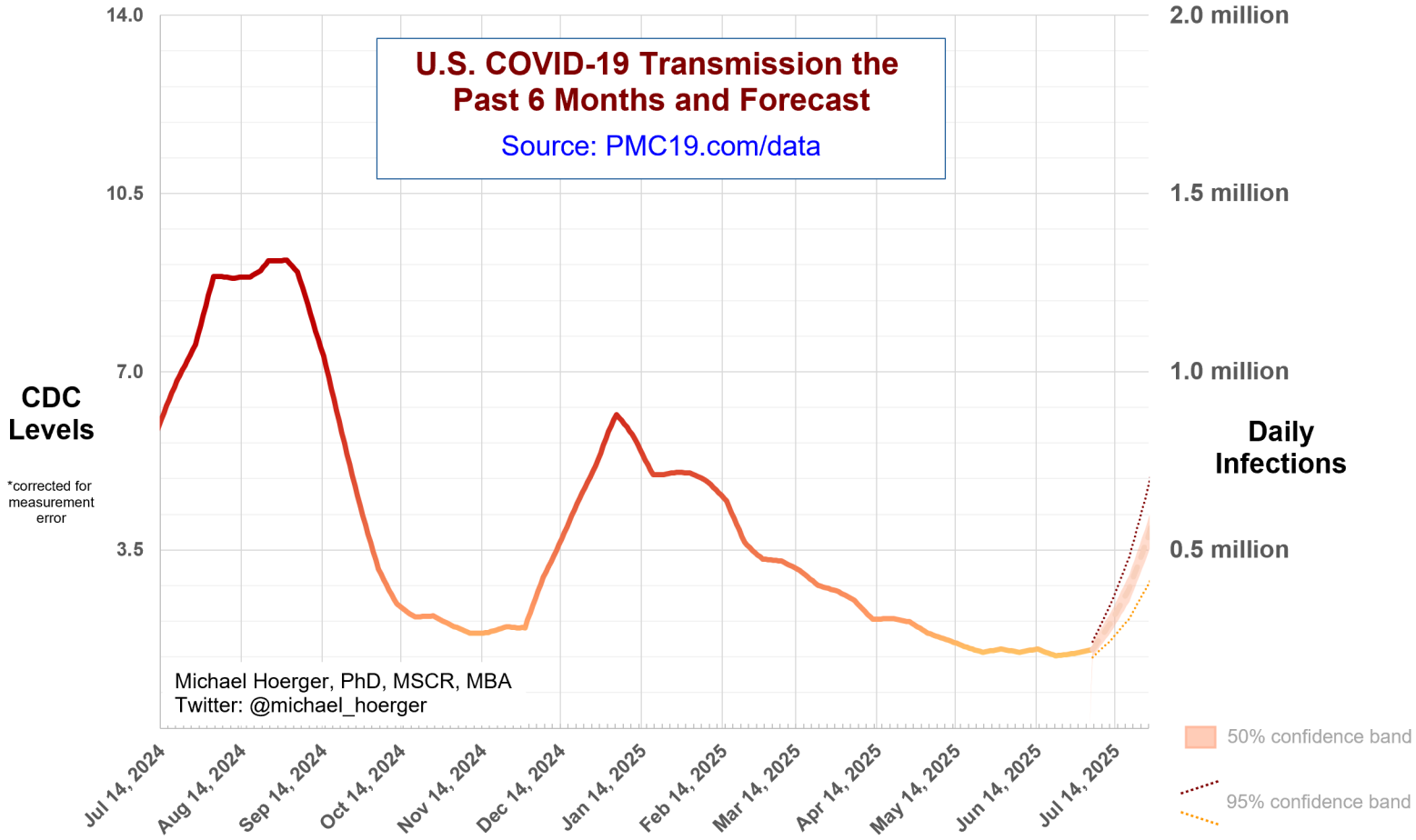
# Year-Over-Year Comparisons

The year-over-year graph shows current transmission along the red line in the lower left corner. Current transmission continues to track quite closely with yellow line (two years ago). The yellow line is now looking more and more plausible, but again, we are awaiting potentially large retroactive corrections.



# Close-up on the Current Forecast

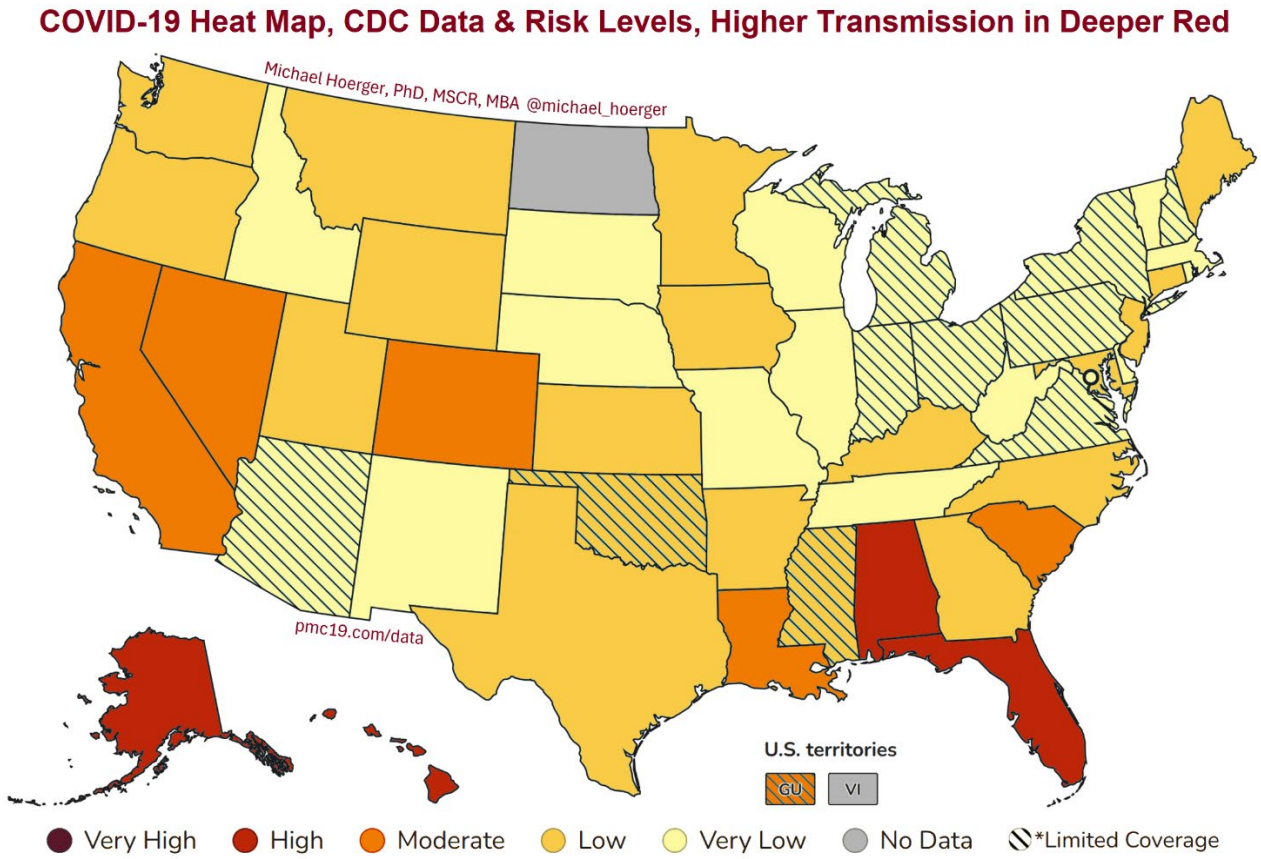
This graph shows the current forecast. Note that values for “today” are a forecast from data 9-12 days old. The current forecast is for increasing transmission over the next several weeks. With low-quality real-time data coming in, the forecast only shows 3 weeks forward from the most recent data point provided. Currently, the U.S. is expected to reach 500K daily infections around July 30. However, this could move forward if the retroactively corrected data push current levels slightly upward. Retroactive corrections have a particularly large impact on forecasted trajectories as waves are taking off.



# 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 is high in Hawai’i, Alaska, Florida, and Alabama. Note pockets of high transmission within states too, such as the California Bay Area.

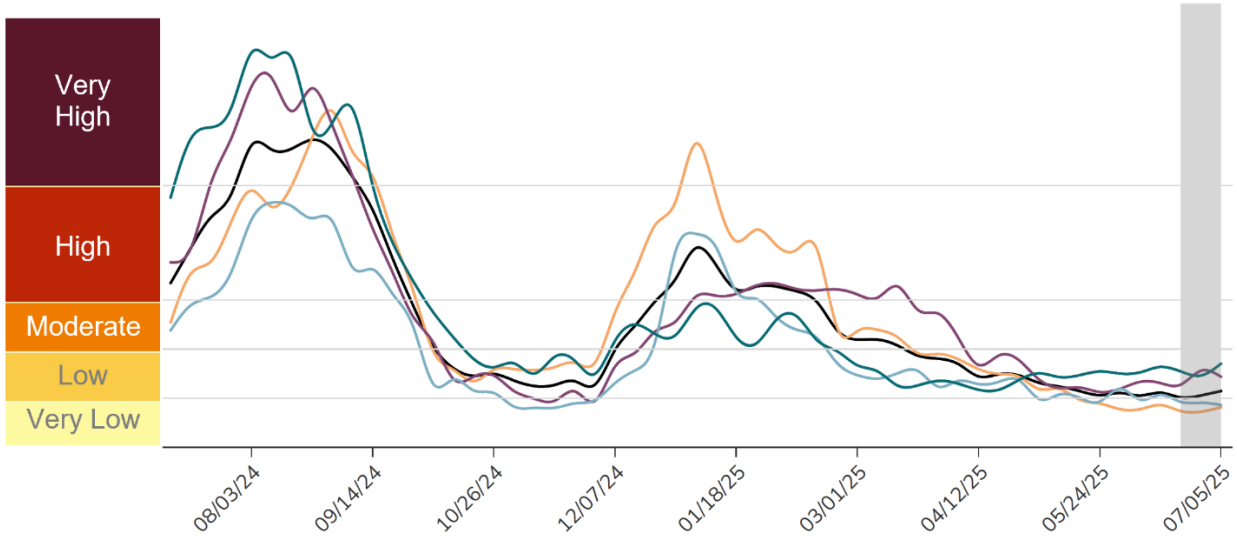


# Regional Case Estimation

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 148) | 0.5% (1 in 189) |
| Northeast | 0.5% (1 in 196) | 0.4% (1 in 252) |
| Midwest | 0.5% (1 in 207) | 0.4% (1 in 266) |
| South | 0.9% (1 in 118) | 0.7% (1 in 151) |
| West | 1.0% (1 in 99) | 0.8% (1 in 127) |

* 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 Regional Multiplier* |
|---|
| 0.298 |

* CDC level multiplied by the PMC Regional 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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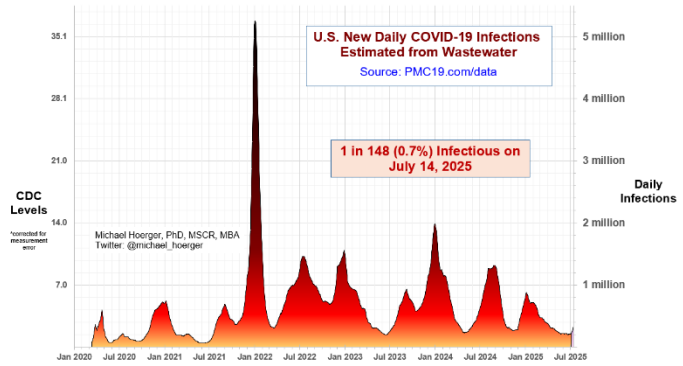


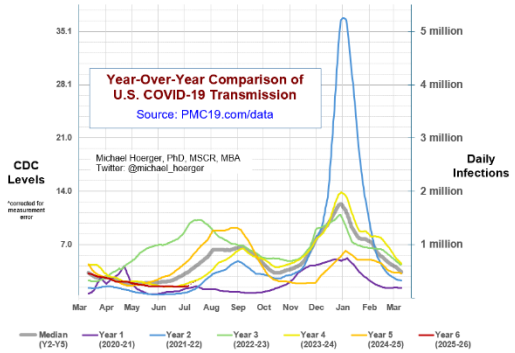


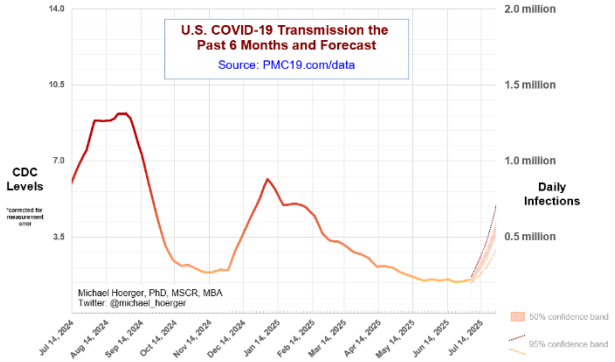


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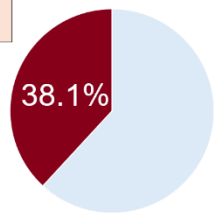


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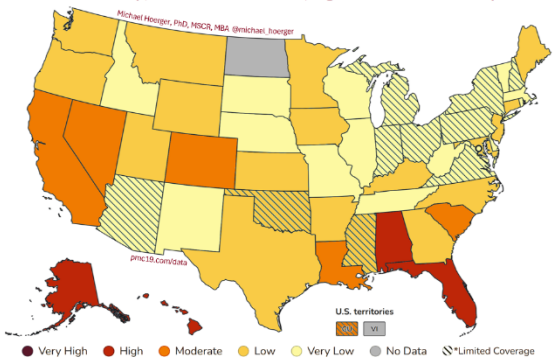
COVID-19 Heat Map, CDC Data & Risk Levels, Higher Transmission in Deeper Red

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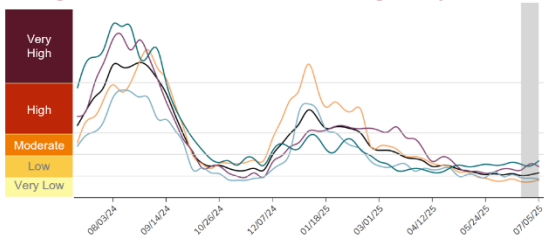


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**A separate document called a Technical Appendix appears on the dashboard page and has more methodologic info.**