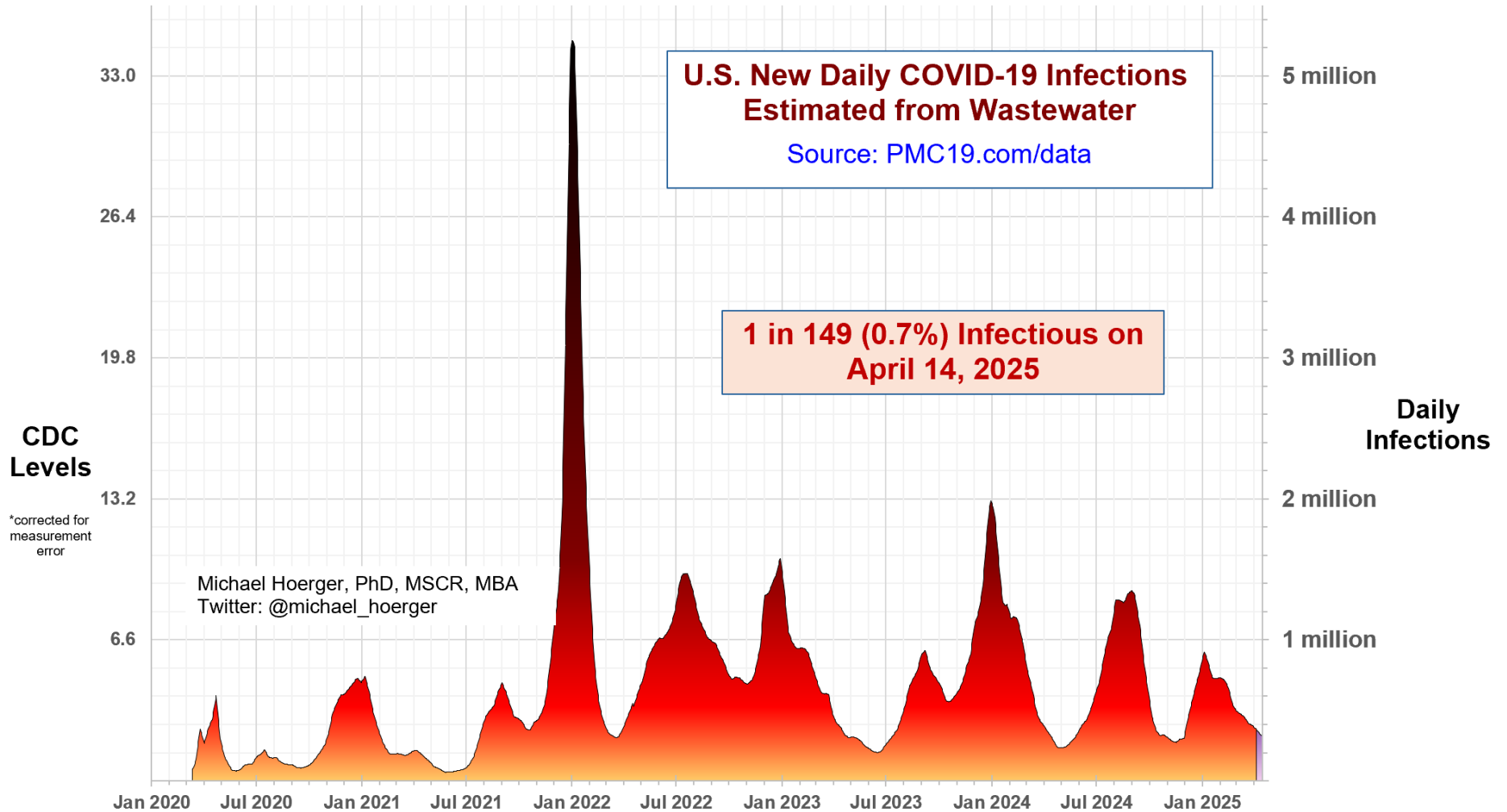


# PMC U.S. COVID-19 Case Estimation and Forecasting Model: Report for April 14, 2025, [pmc19.com/data](http://pmc19.com/data)

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



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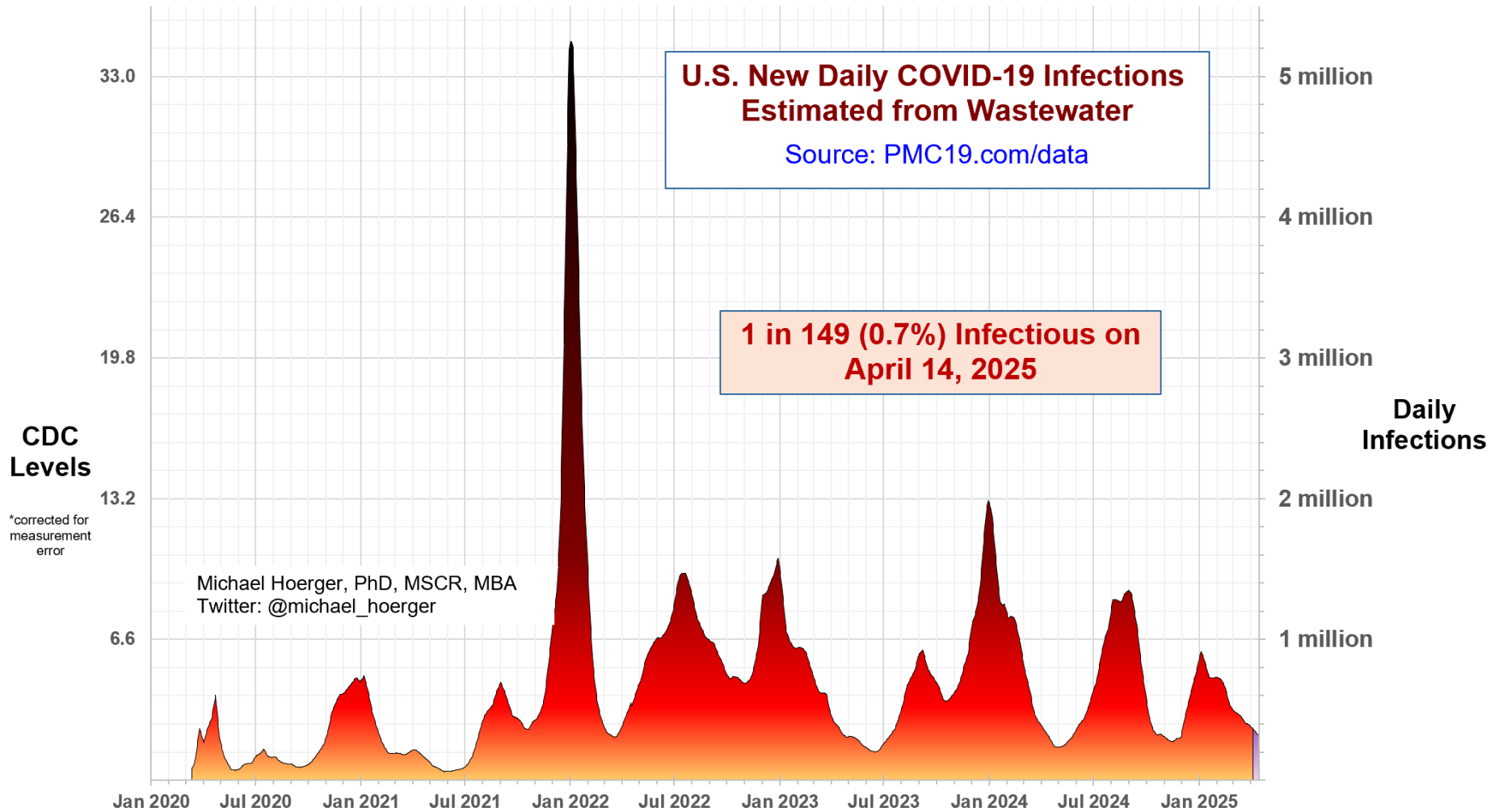
## Announcements

**Data Quality Note:** The CDC (80% model weight) reported data this week, as did Biobot (20% model weight). Data quality remains moderate. The CDC data keep getting noticeably retroactively corrected, which can confuse people when they see levels trending downward but higher than previously reported, or vice versa. 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

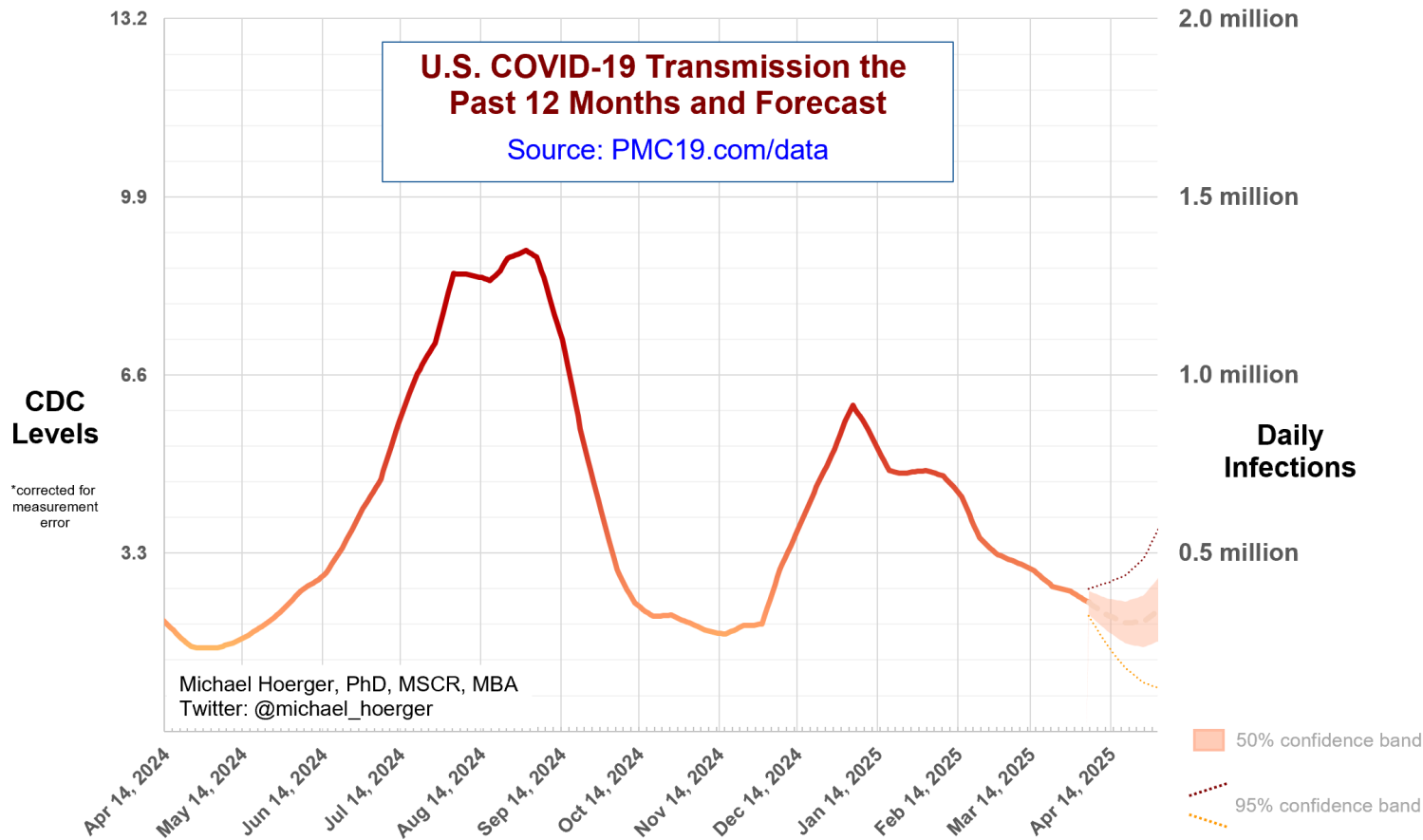
We are in a high “lull” between Covid waves. Presently, an estimated 0.7% (1 in 149 people) are actively infectious. The return of Biobot data this week paint a clearer picture toward steady declines in transmission nationally.





## 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 250,000-450,000 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. With retroactive corrections and the most recent Biobot data, the forecast looks marginally brighter than last week.



## Supplemental Statistics

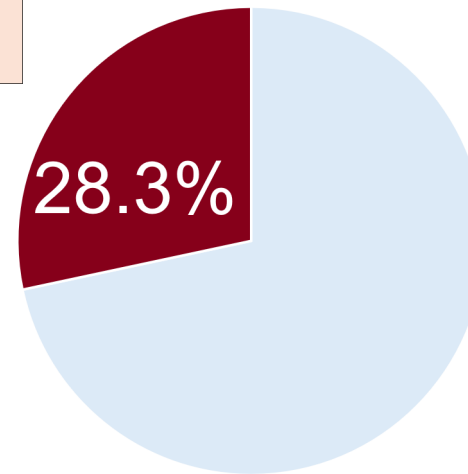
These supplemental statistics may prove useful in conversations about transmission and mitigation. In a large event of 40-50 people, there is a 1-in-4 chance of exposure if average risk and no firm testing/isolation policies. **The updated table now shows that the infections this week are anticipated to result in 800-1,300 excess deaths. The infections over the next month are expected to result in 3,700-6,200 excess deaths.**

| Current Levels for Apr 14, 2025                                |
|--|
| <b>% of the Population Infectious</b><br>0.7% (1 in 149)       |
| <b>New Daily Infections</b><br>320,000                         |
| <b>New Weekly Infections</b><br>2,240,000                      |
| <b>Resulting Weekly Long COVID Cases</b><br>112,000 to 448,000 |
| <b>Resulting Weekly Excess Deaths</b><br>800 to 1,300          |

| Monthly Forecast  |
|---|
| <b>Average % of the Population Infectious</b><br>0.7% (1 in 138)  |
| <b>Average New Daily Infections</b><br>345,367                    |
| <b>New Infections During the Next Month</b><br>10,361,000         |
| <b>Resulting Monthly Long COVID Cases</b><br>518,000 to 2,072,000 |
| <b>Resulting Monthly Excess Deaths</b><br>3,700 to 6,200          |

| Running Totals  |
|---|
| <b>Infections Nationwide in 2025</b><br>60,891,000                    |
| <b>Average Number of Infections Per Person All-Time, U.S.</b><br>3.76 |

| 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               | 9.6%                         |
| 2   | 1.3%                         | 20               | 12.6%                        |
| 3   | 2.0%                         | 25               | 15.5%                        |
| 4   | 2.7%                         | 30               | 18.3%                        |
| 5   | 3.3%                         | 35               | 21.0%                        |
| 6   | 4.0%                         | 40               | 23.6%                        |
| 7   | 4.6%                         | 50               | 28.5%                        |
| 8   | 5.2%                         | 75               | 39.6%                        |
| 9   | 5.9%                         | 100              | 48.9%                        |
| 10  | 6.5%                         | 300              | 86.7%                        |



**There is more COVID-19 transmission today than during 28.3% of the pandemic.**

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

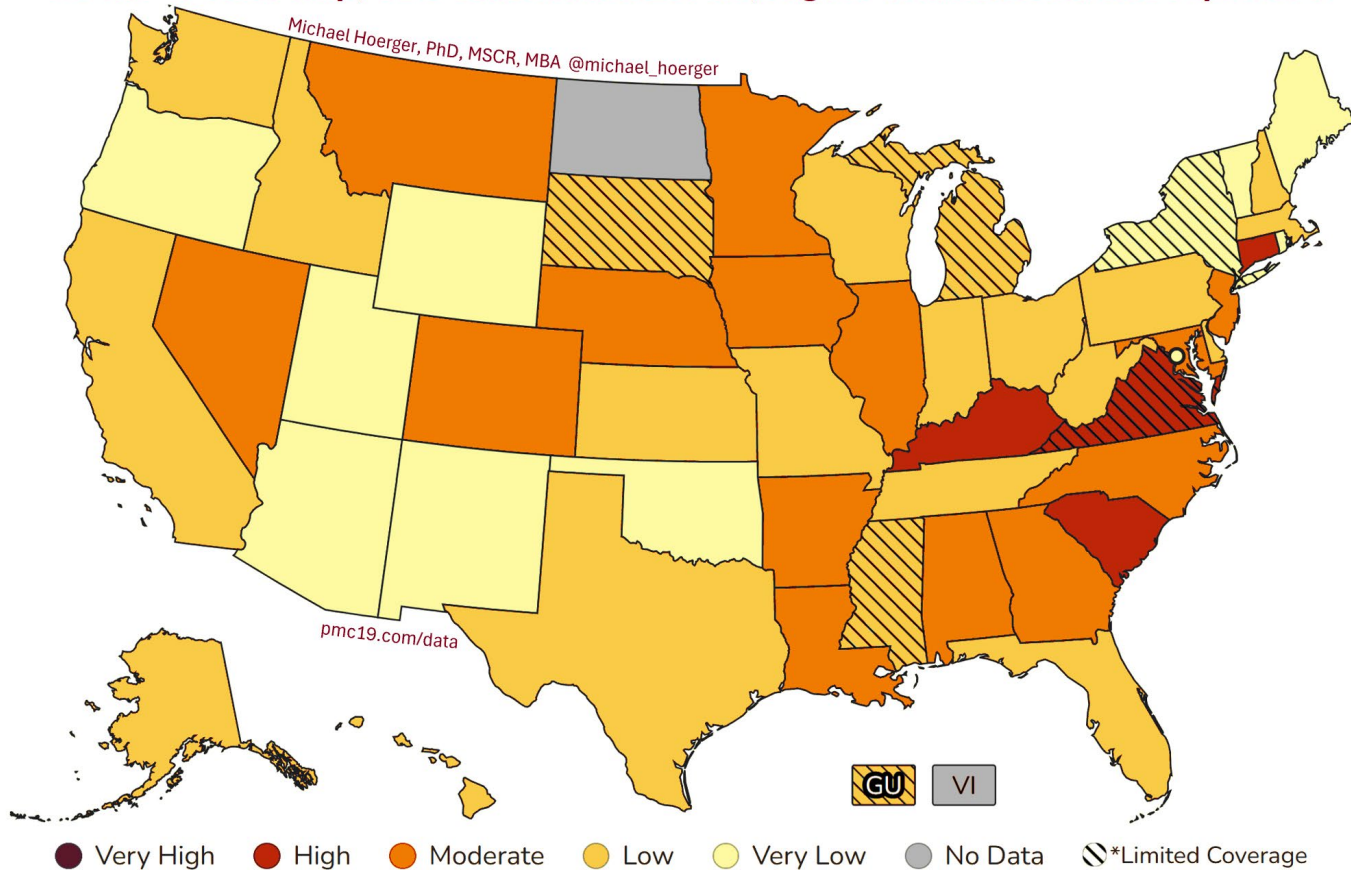
Michael Hoerger, PhD, MSCR, MBA  
Twitter: @michael\_hoerger

# CDC COVID-19 Heat Map

This map uses the CDC state-by-state data to show areas with higher transmission in deeper red. 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

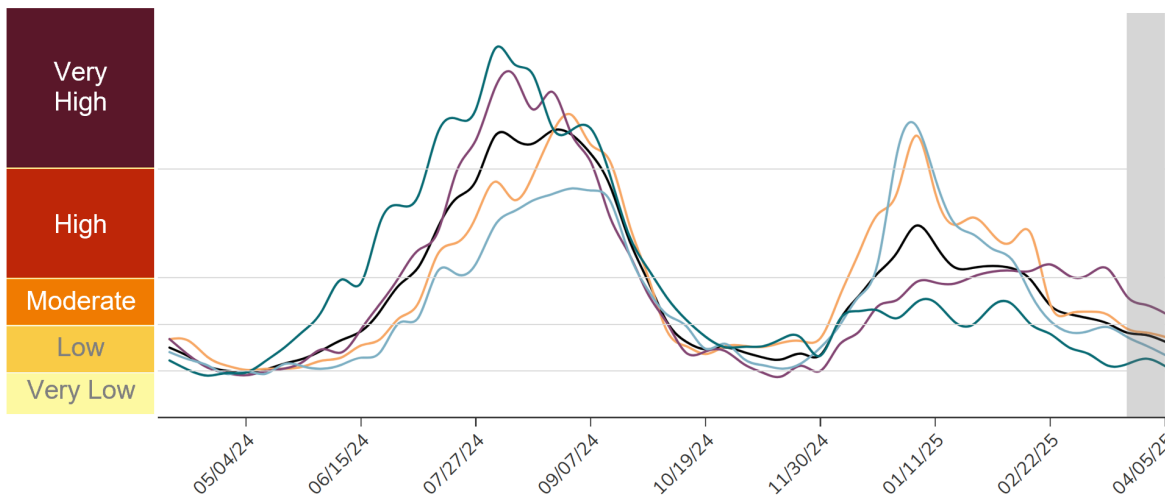
This graph from the CDC shows regional variation in transmission. You can use the “PMC Regional Multiplier” to get a ballpark estimate the proportion of a given region actively infectious with COVID-19 (see Technical Appendix document on the dashboard page).

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    |
| <span style="display:inline-block; width:10px; height:10px; background-color:black;"></span> National      | 0.7% (1 in 149) | 0.8% (1 in 129) |
| <span style="display:inline-block; width:10px; height:10px; background-color:lightblue;"></span> Northeast | 0.6% (1 in 181) | 0.6% (1 in 157) |
| <span style="display:inline-block; width:10px; height:10px; background-color:orange;"></span> Midwest      | 0.7% (1 in 141) | 0.8% (1 in 121) |
| <span style="display:inline-block; width:10px; height:10px; background-color:purple;"></span> South        | 0.9% (1 in 109) | 1.1% (1 in 94)  |
| <span style="display:inline-block; width:10px; height:10px; background-color:teal;"></span> West           | 0.5% (1 in 220) | 0.5% (1 in 190) |

| PMC Regional Multiplier* |
|--------------------------|
| 0.317                    |

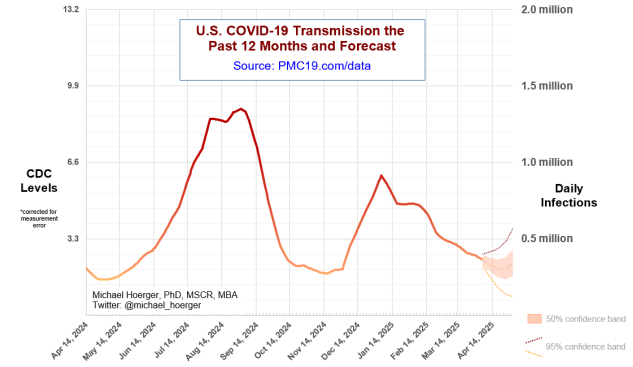
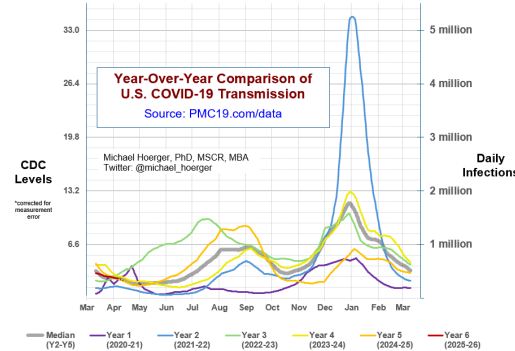
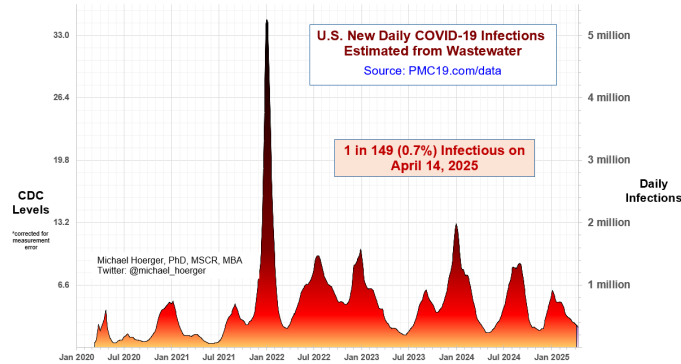
\* CDC level multiplied by the PMC Regional Multiplier provides an approximate estimate of the percentage actively infectious.

\* 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](http://pmc19.com/data)



**Current Levels for Apr 14, 2025**

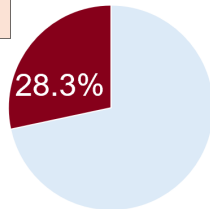
|                                   |                    |
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|  |                      |
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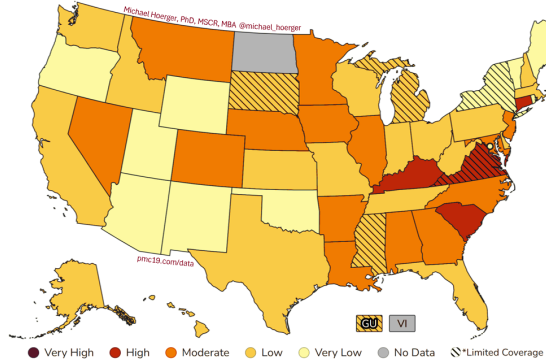
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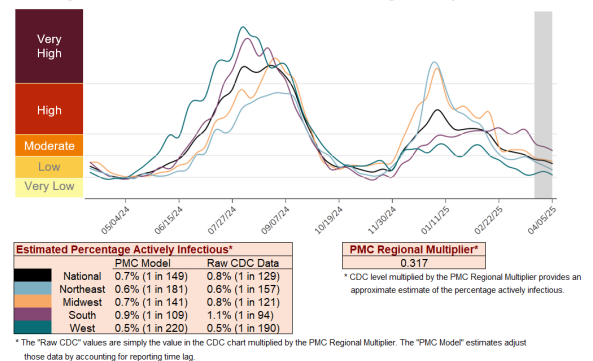
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Twitter: @michael\_hoerger

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.**