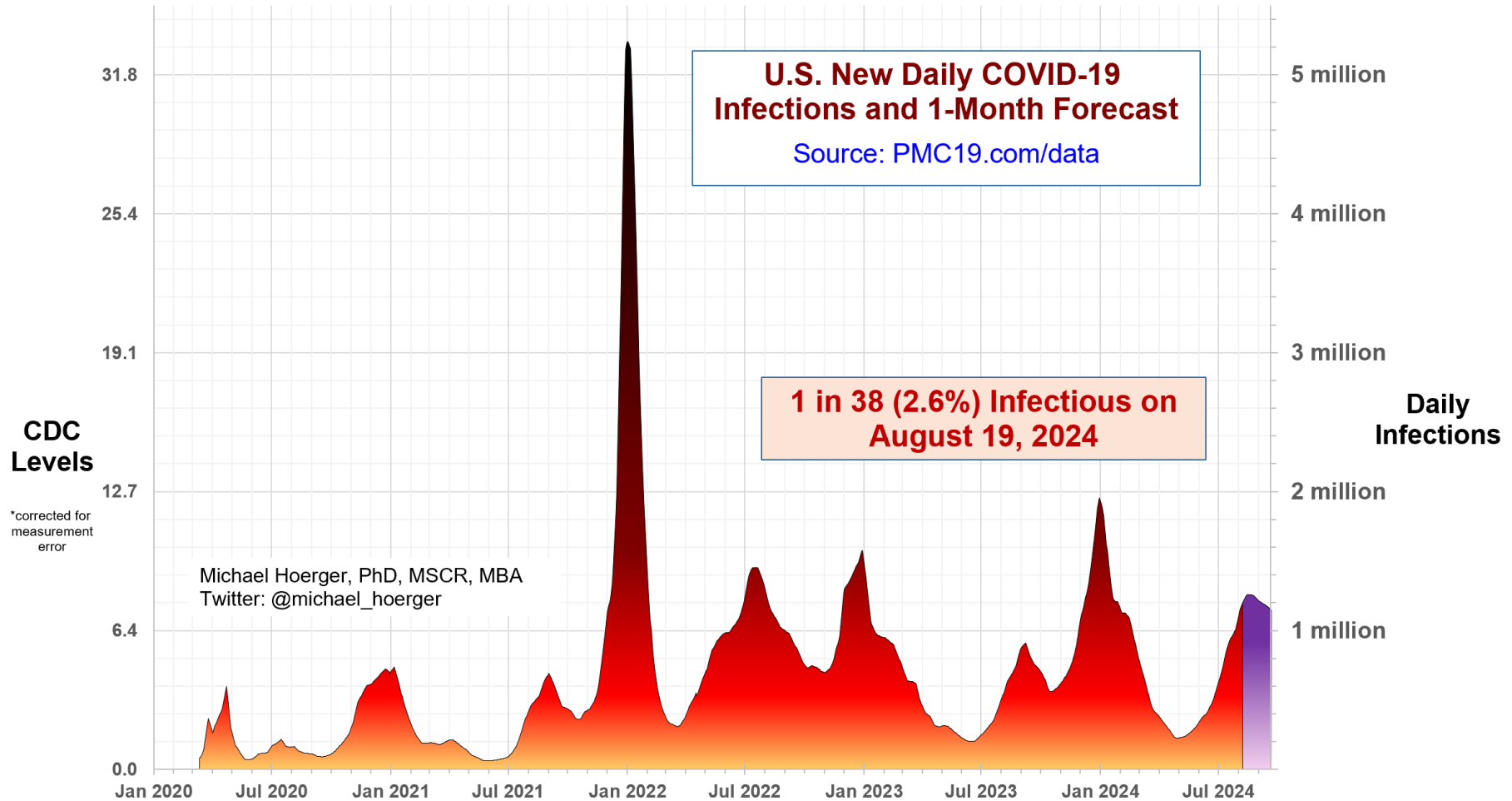


PMC U.S. COVID-19 Case Estimation and Forecasting Model: Report for August 19, 2024, pmc19.com/data

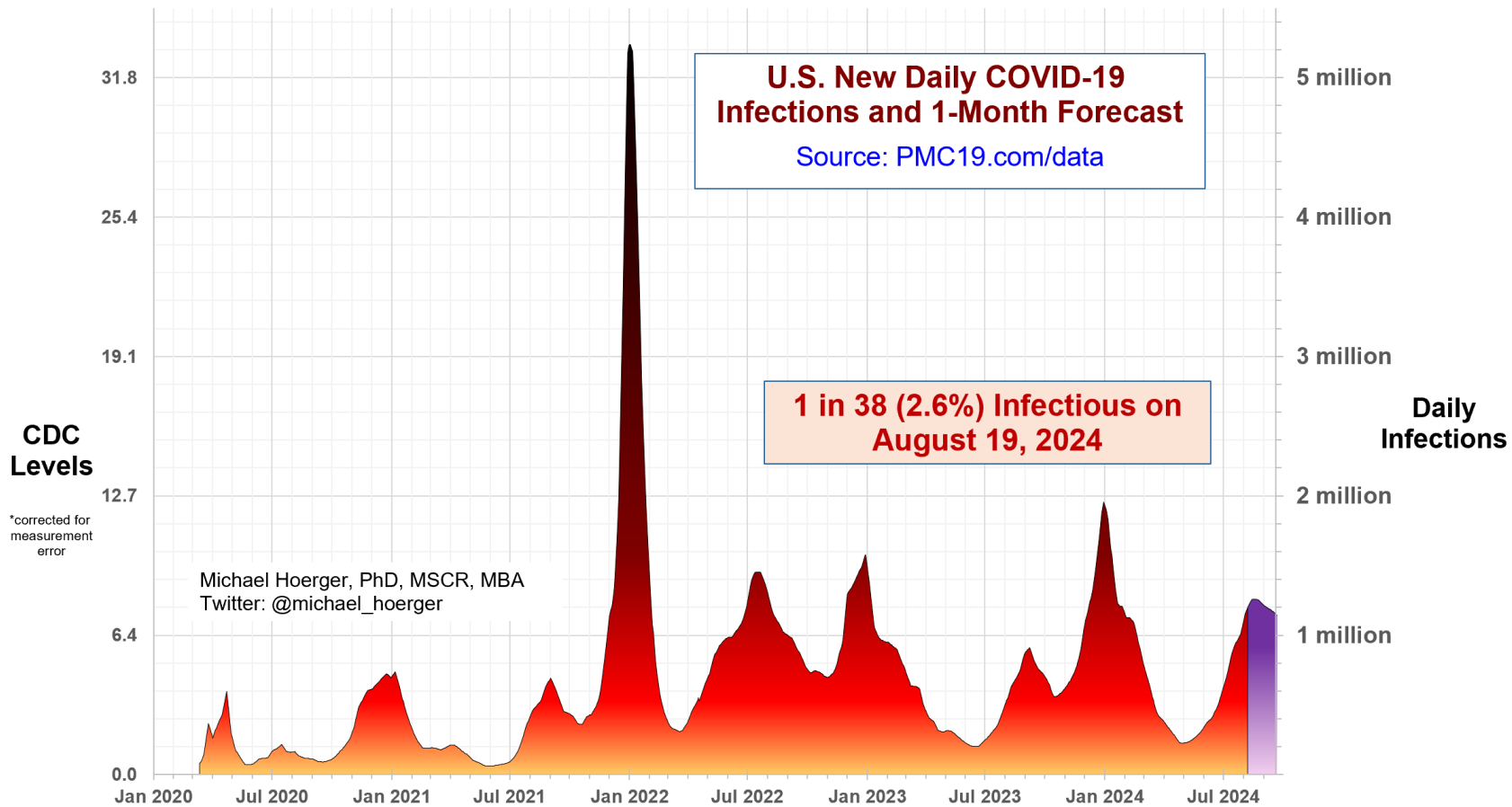
Michael Hoerger, PhD, MSCR, MBA, Pandemic Mitigation Collaborative (PMC)



Cite as: Hoerger, M. (2024, Aug 19). *PMC U.S. COVID-19 Case Estimation and Forecasting Model: Report for August 19, 2024*. Pandemic Mitigation Collaborative. <http://www.pmc19.com/data>

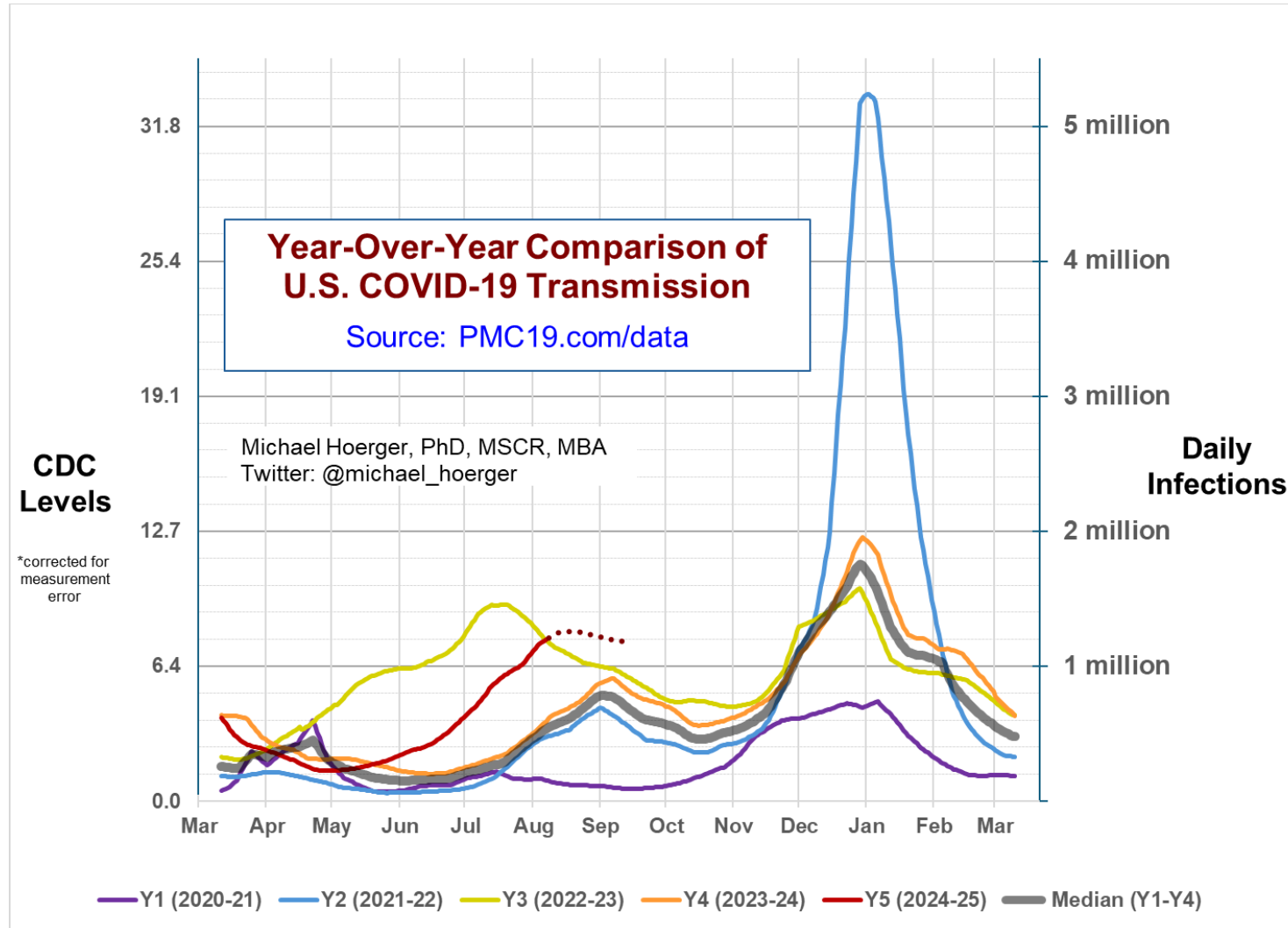
The Big-Picture View of the Pandemic

We are well into the 9th wave of the pandemic, with approximately 1.3 million infections per day. Approximately 2.6% of the U.S. population is actively infectious. Expect an average of approximately 1.2 million infections per day over the next month. Although we are likely near or just past the peak of transmission nationally, note substantial regional variation, with the South and West higher presently. In recent waves, 50-60% of transmission occurs after the peak day, and we expect high transmission the remainder of 2024.



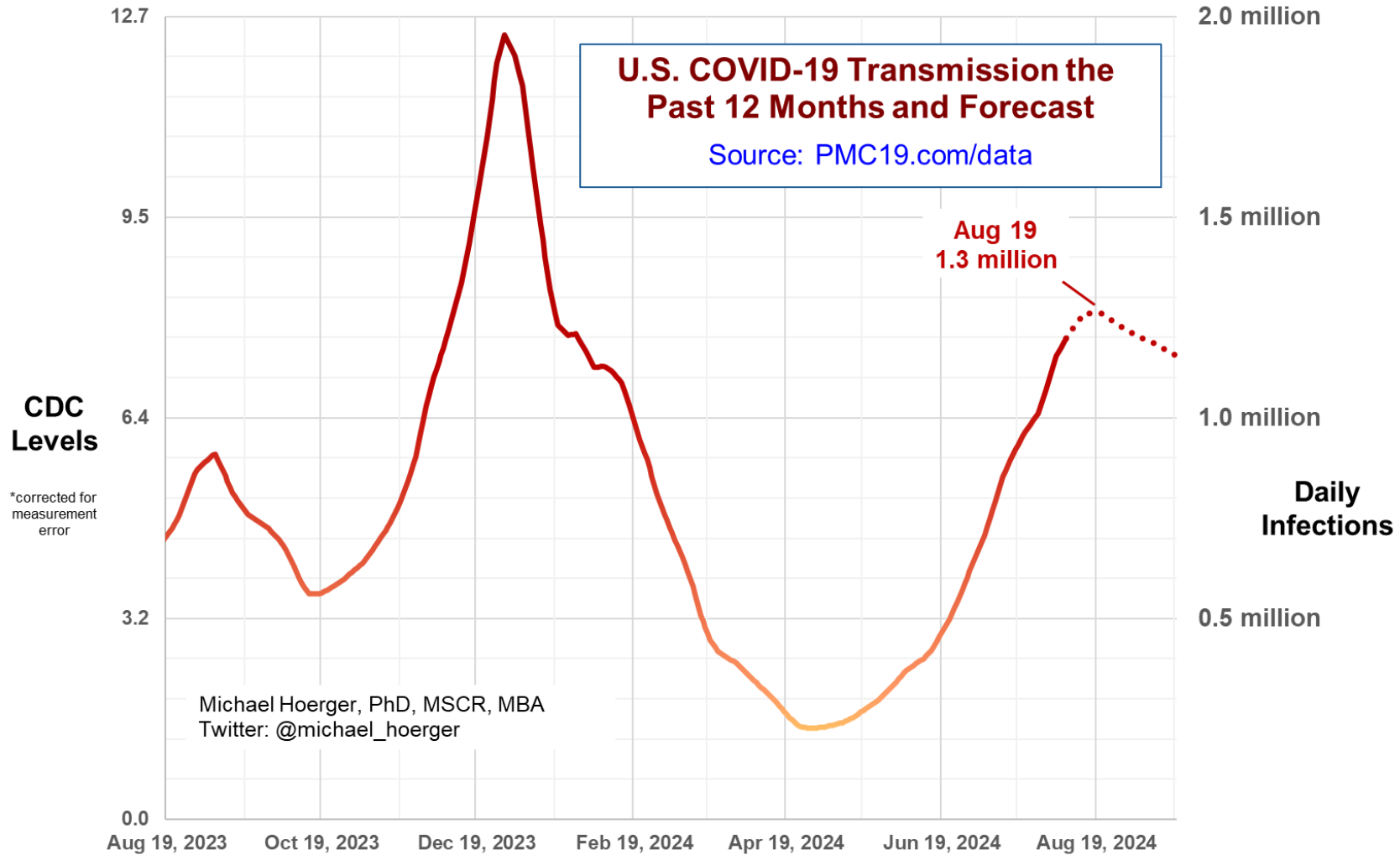
Year-Over-Year Comparisons

The year-over-year comparisons suggest that we are experiencing the highest-level of transmission all-time during back-to-school season.



Close-up on the Current Forecast

This is our most granular graph of the current wave. We are at an estimated nearly 1.3 million current infections per day in the U.S.



Supplemental Statistics

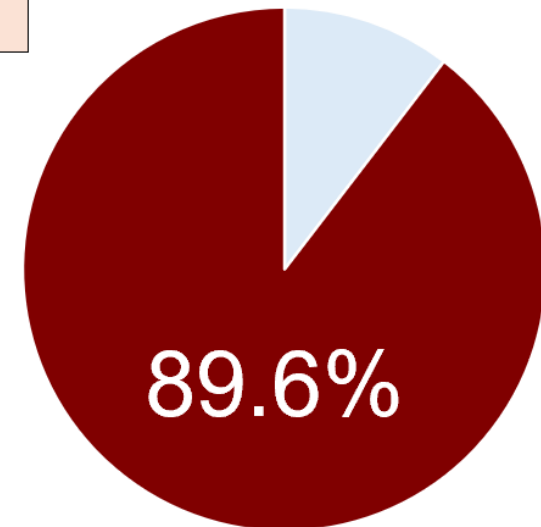
These supplemental statistics may prove useful in conversations about transmission and mitigation. To highlight a few, 1 in 38 people are actively infectious, with nearly 1.3 million infections/day. Over the next month, expect about 1.2 million infections/day on average. In a school classroom of 25-30 people, it should be assumed that someone (about a 50% chance) has infectious COVID. Transmission is higher than during 89.6% of the pandemic, lower than just 10.4% of pandemic days. The impact on potential Long COVID cases the next month will be staggering, and expect high transmission throughout the remainder of 2024.

| Current Levels for Aug 19, 2024 | |
|--|----------------------|
| % of the Population Infectious | 2.6% (1 in 38) |
| New Daily Infections | 1,260,000 |
| New Weekly Infections | 8,820,000 |
| Resulting Weekly Long COVID Cases | 441,000 to 1,764,000 |

| Monthly Forecast | |
|---|------------------------|
| Average % of the Population Infectious | 2.5% (1 in 39) |
| Average New Daily Infections | 1,212,000 |
| New Infections During the Next Month | 36,360,000 |
| Resulting Monthly Long COVID Cases | 1,818,000 to 7,272,000 |

| Running Totals | |
|---|-------------|
| Infections Nationwide in 2024 | 172,150,000 |
| Average Number of Infections Per Person All-Time, U.S. | 3.30 |

| How Does Risk Increase with More Social Contacts? | | | |
|---|------------------------------|------------------|------------------------------|
| Number of People | Chances Anyone Is Infectious | Number of People | Chances Anyone Is Infectious |
| 1 | 2.6% | 15 | 33.0% |
| 2 | 5.2% | 20 | 41.4% |
| 3 | 7.7% | 25 | 48.7% |
| 4 | 10.1% | 30 | 55.1% |
| 5 | 12.5% | 35 | 60.7% |
| 6 | 14.8% | 40 | 65.7% |
| 7 | 17.1% | 50 | 73.7% |
| 8 | 19.2% | 75 | 86.5% |
| 9 | 21.4% | 100 | 93.1% |
| 10 | 23.4% | 300 | 99.9% |

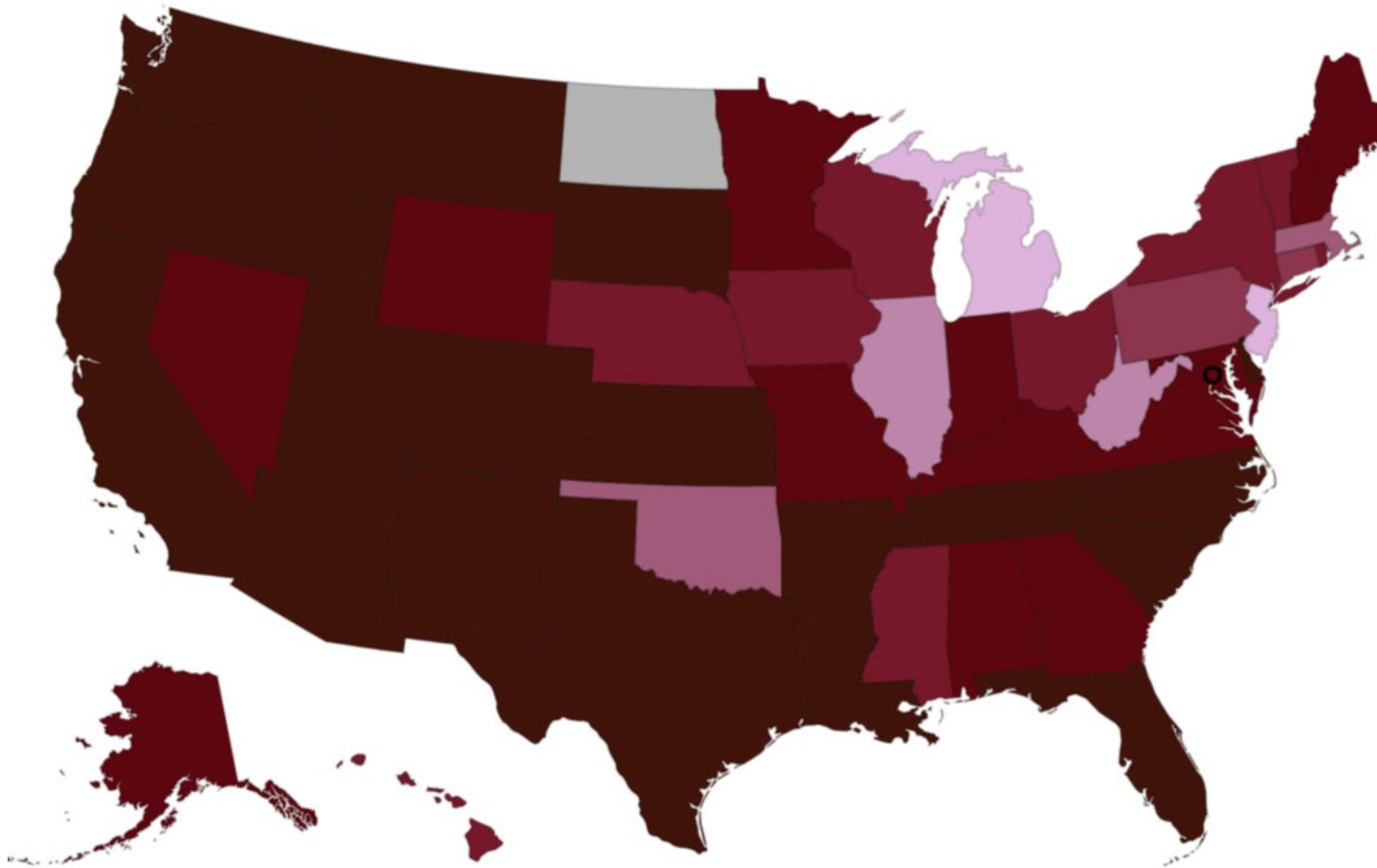


There is more COVID-19 transmission today than during 89.6% of the pandemic.

CDC COVID-19 Heat Map

This map uses the CDC state-by-state data to show areas with higher transmission in deeper red. Much of the U.S., especially the West and South have extremely high transmission. The CDC version of the map, colored in cool blue is available online: <https://www.cdc.gov/nwss/rv/COVID19-currentlevels.html>

CDC COVID-19 Heat Map, Higher Transmission Shown with Deeper Red



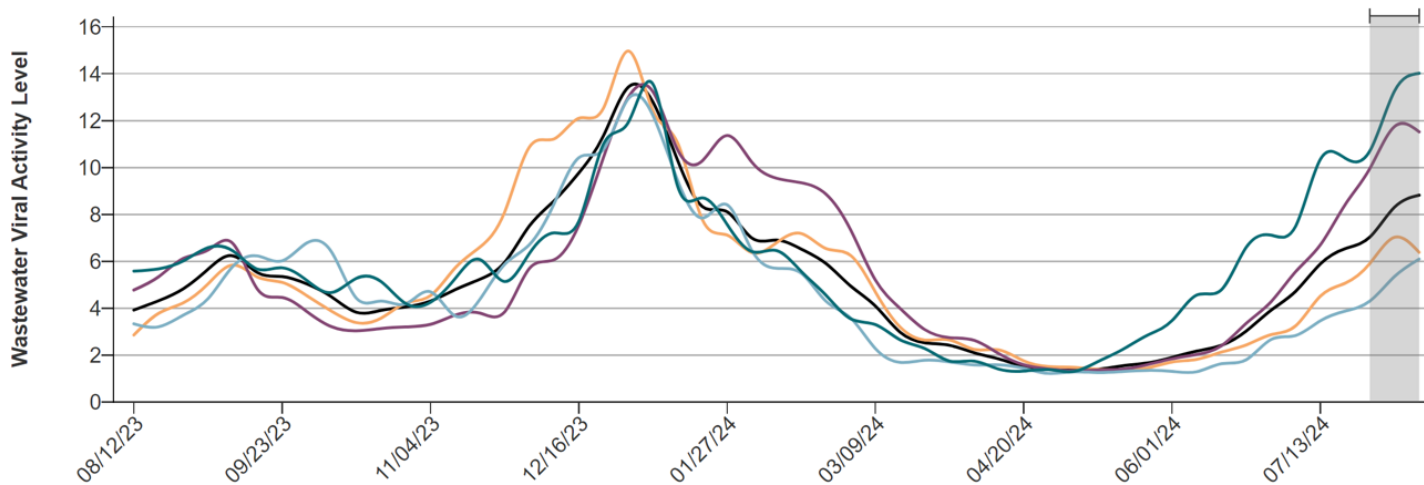
Regional Case Estimation

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 | 2.6% (1 in 38) | 2.9% (1 in 34) |
| | Northeast | 1.8% (1 in 55) | 2.0% (1 in 50) |
| | Midwest | 1.9% (1 in 52) | 2.1% (1 in 48) |
| | South | 3.4% (1 in 29) | 3.8% (1 in 26) |
| | West | 4.2% (1 in 24) | 4.6% (1 in 22) |

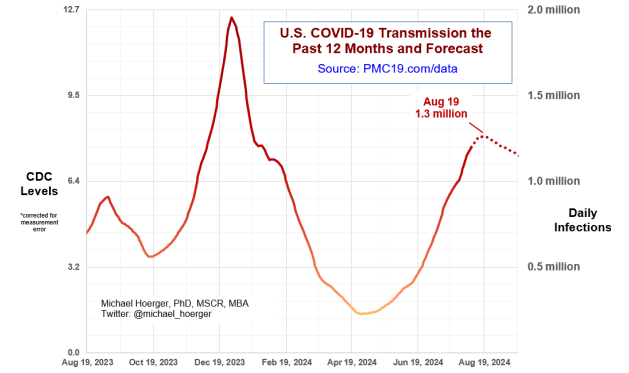
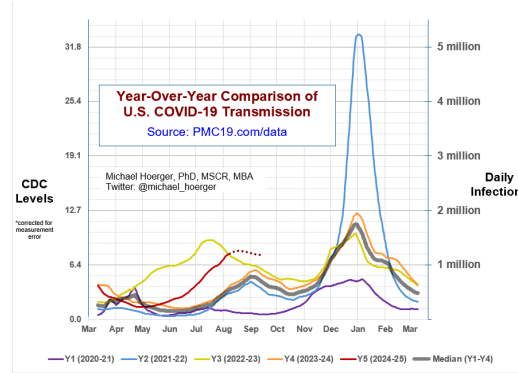
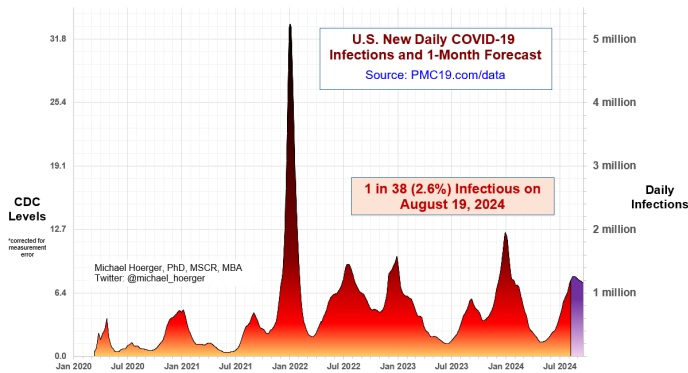
| PMC Regional Multiplier* |
|--------------------------|
| 0.329 |

* 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 and to a marginal degree whether Biobot data suggest higher or lower transmission levels.

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 Aug 19, 2024

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Monthly Forecast

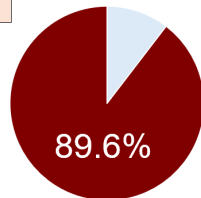
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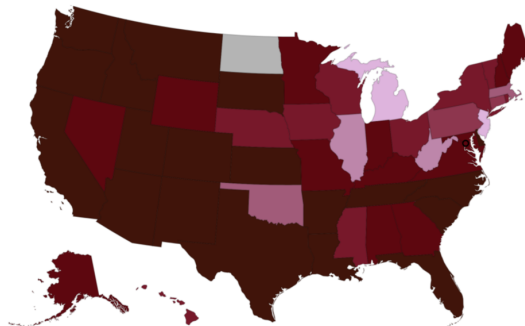
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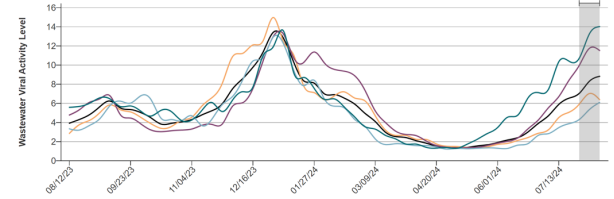


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Announcements

July 11

Recent COVID chat on Twitter had >2,000 listeners:

<https://x.com/AnciraBecky/status/1808429122831401145>

July 24

TODAY covers the PMC Forecast for the summer wave:

<https://www.today.com/health/coronavirus/states-with-highest-covid-rates-2024-rcna163403>

Aug 1

Check out our new empirical article in JAMA-NO framing masking in healthcare as a healthcare quality indicator.

Article: <https://jamanetwork.com/journals/jamanetworkopen/article-abstract/2821699>

Summary: <https://www.msn.com/en-gb/health/other/masking-policies-prevalent-in-top-cancer-centers-amid-winter-covid-wave/ar-BB1qZWnr>

Twitter Spaces Conversation: <https://x.com/i/spaces/1OdKrXllryAJX>

*If new to Twitter, it is not terribly challenging to create an account. Do so, and check in once a month or so.

You may find it more useful than realized. I did.

PPT for the Space: <https://pmc19.com/jama.pdf>

Aug 15

The dashboard and a related pilot project were featured on CBS 4WWL.

<https://www.wwtv.com/article/news/health/new-orleans-free-home-air-filters-for-cancer-patients-covid-cases-special-kit-safe/289-5d873151-7069-478a-ab03-2260cd08c22a>

Sep 17

Pencil in a Data Discussion between Drs. Hoerger and Moriarty who run the top public COVID case estimation models in the U.S. and Canada, respectively. The tentative time is 8-10 PM ET (7-9 PM CT). More details to follow.

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