PMC U.S. COVID-19 Report for September 1, 2025. pmc19.com/data

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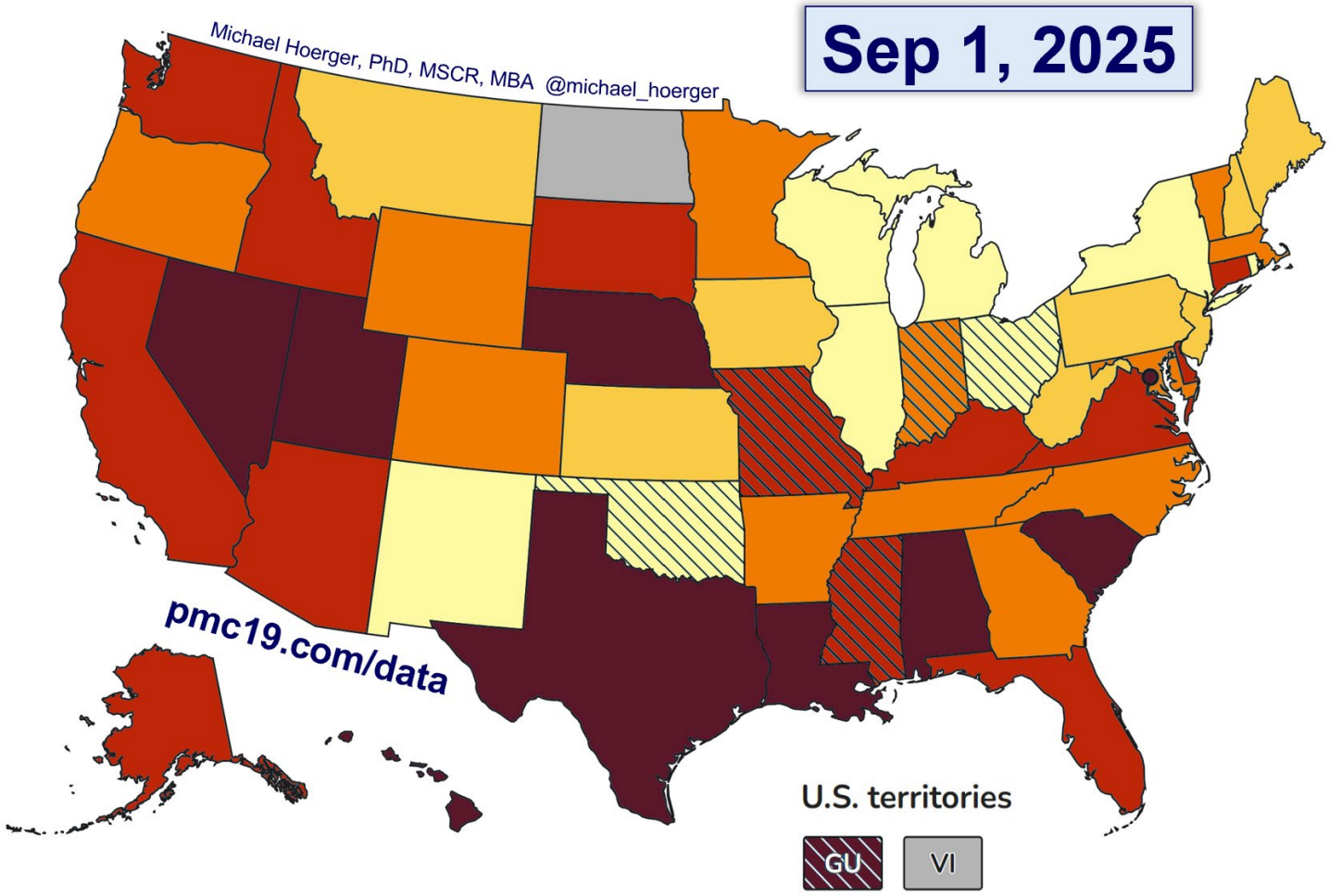

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Announcements

CDC Methodologic Updates. The CDC recently made several methodologic updates. PMC weighs the pros and cons.

- **Switching to non-normalized data.** The CDC switched from “normalized” to “non-normalized” data, basically meaning they have stopped adjusting levels based on key confounders like rain levels. At first glance, the change appeared problematic. The PMC assessment is that there are advantages and disadvantages. First, consider the pros. Their existing standardization methodology partly accounts for this, and averaging across regions accounts for this at the national levels. The normalized and non-normalized national avergage of the data correlate near perfectly (r=.98 out of 1.00), so the data overall tell the same story at the national level. The national data do suggest the prior 3 peaks were higher and some of the lulls were lower. Our forecasting model had anticipated slighlty higher peaks for the prior 3 waves, especially last winter’s wave, so note that the data change is not a minimizing change. It suggests higher levels that actually increase the estimate of cumulative infections in the U.S. A key possibility is that the CDC’s prior methodology was ineffective, and they have dropped ineffective and time-consuming methodologic and analytic approaches. The main downside of the change is that people should expect more unnecessary variability at the local level. Time will tell.
- **Modifying the CDC Qualtiative Levels or “Bins.”** The CDC takes quantitative values related to transmission and puts them in categories, levels, or bins (Very low, Low, Moderate, High, and Very High). They recently edited how the values translate into categories, and thus, the national heat map. PMC was initially moderately concerned. Upon digging further into the data, PMC is deeply concerned. The trend is to downplay transmission. Overall, quantitative values are often downplayed ½ to 1 full category further. Our estimate was that 1 in 40 actively infectious was the tipping point between Very High and High previously, but now it's the tipping point between High and Moderate. Maps will appear lighter, transmission lower.
- **Overall message.** The CDC data remain strong. In fact, the change to non-normalized data could speed up data processing, providing better real-time data, with minimal quality loss. That is the respectful interpretation, but we will alert you if the underlying data have problems. The ***interpretation*** of the data continue to grow increasingly problematic and minimizing. This has been a long-standing trend during both administrations, particularly in map visualizations.

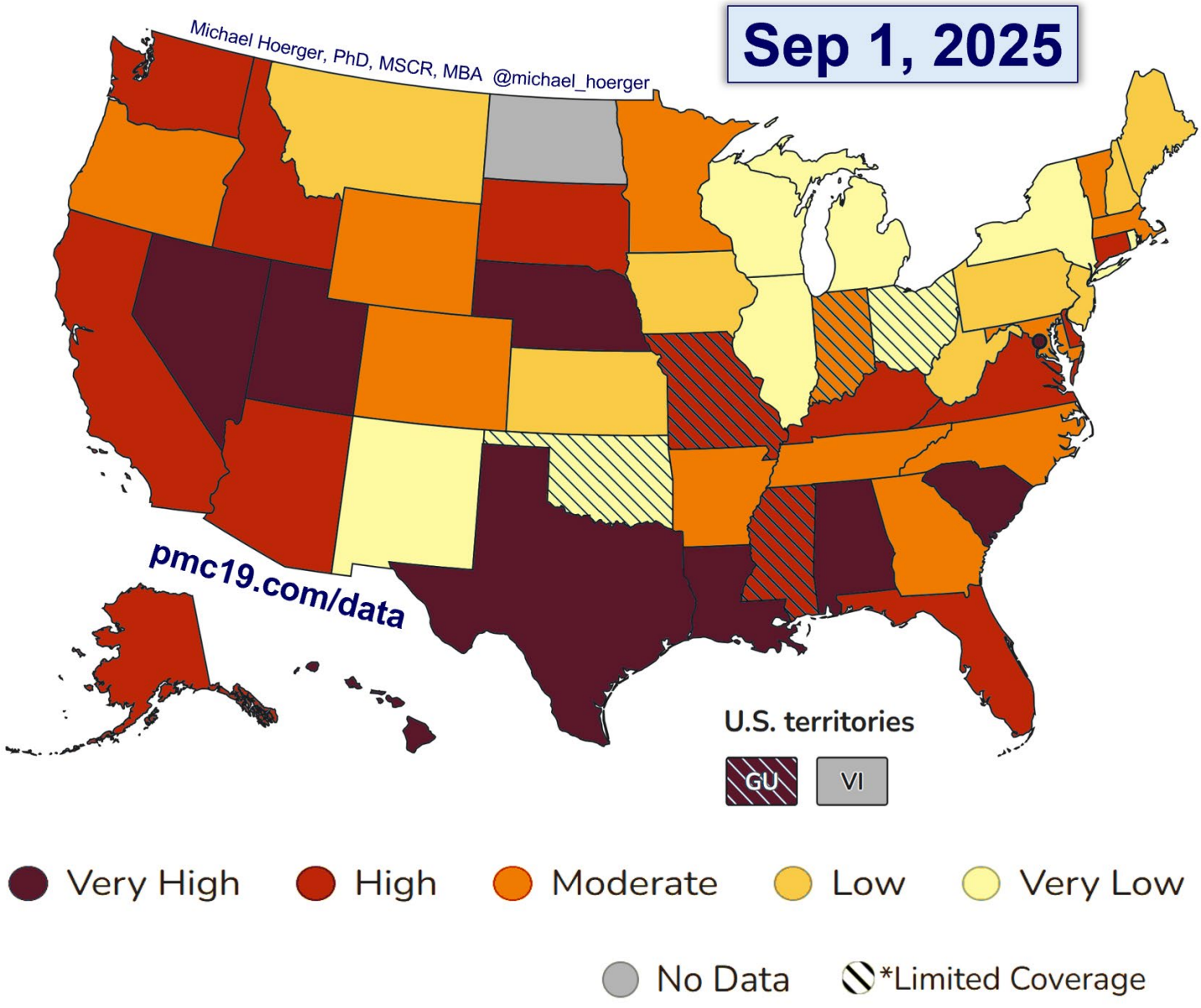
PMC 3.0 Update. The PMC 3.0 model launched with this report. The update accounts for the CDC changes and makes several strategic improvements. A fully updated Technical Appendix will appear later in the week.

- **Improving summer forecasting.** The ***model updates*** were designed to improve forecasting by dealing with two key challenges: a) variability in the timing and shape of summer waves, and b) increasing regional variation in transmission. For the first challenge, we tested adding many additional features to the model; most added nothing, reflecting the challenges in summer forecasting with few summer waves so far, but a few will improve overall estimates of the summer peak and post-peak decline. Second, we have incorporated a variable on the percentage of states seeing increased transmission. This is a big-picture metric that captures regional variation quite well. It also provides an intuitive mental shortcut. When 65-80% of states are increasing, expect a peak roughly 3 weeks later. The risk is that if state-level data get disrupted, so too will the model.
- **Increasing reach and impact.** Some changes readers will notice in this and future updates is an increasing focus on ***state-level data*** and images designed for better ***social media dissemination*** on Instagram and TikTok. Specifically, all images are squares, very easy for Instagram posts as is or with light commentary above/below, and useful for TikTok videos with two images at a time or single images with commentary.
- **Identifying what matters.** Finally, we have cut or ***de-implemented*** some of the dashboard information seemingly less used. Voice your displeasure as needed. This is a dynamic community-based dashboard, and we hope you will find these updates useful.

Popular and News Media Coverage:

- Comedian Francesca Fiorentini with a public health roundup on YouTube, mentioning PMC late in the clip: https://www.youtube.com/watch?v=yhr6Kwgrnhs
- Back-to-School Health Forum 2025: https://www.youtube.com/watch?v=n5_RRRMS_HU
- COVID Safety for Schools: https://youtube.com/watch?feature=shared&v=7q5CDiCXn7E
- The TODAY Show is tracking vaccinations and transmission, including using the PMC dashboard: https://www.today.com/health/coronavirus/covid-2025-summer-surge-rcna218754

COVID-19 Heat Map, Based on CDC Wastewater Data and Levels (U.S.)



Transmission is High or Very High in 23 states and territories, spreading from the South and West toward other regions.

COVID-19 State Prevalence Estimates

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State	CDC Level	PMC Estimate, % Actively Infectious	Chances anyone is infectious in a room of 10 to 100 people			
			10	25	50	100
Alabama	**Very High**	1 in 24 (4.2%)	35%	66%	88%	99%
Alaska	**High**	1 in 29 (3.4%)	29%	58%	83%	97%
Arizona	**High**	1 in 31 (3.2%)	28%	56%	80%	96%
Arkansas	Moderate	1 in 40 (2.5%)	22%	47%	72%	92%
California	**High**	1 in 30 (3.3%)	28%	57%	81%	96%
Colorado	Moderate	1 in 61 (1.7%)	15%	34%	56%	81%
Connecticut	**High**	1 in 39 (2.6%)	23%	48%	73%	93%
Delaware	**High**	1 in 35 (2.9%)	25%	52%	77%	95%
District of Columbia	**Very High**	1 in 26 (3.8%)	32%	62%	86%	98%
Florida	**High**	1 in 28 (3.6%)	31%	60%	84%	98%
Georgia	Moderate	1 in 50 (2.0%)	18%	40%	64%	87%
Guam	**Very High**	1 in 24 (4.1%)	34%	65%	88%	99%
Hawaii	**Very High**	1 in 21 (4.7%)	38%	70%	91%	>99%
Idaho	**High**	1 in 30 (3.3%)	29%	57%	82%	97%
Illinois	Very Low	1 in 195 (0.5%)	5%	12%	23%	40%
Indiana	Moderate*	1 in 50 (2.0%)	18%	39%	63%	87%
Iowa	Low	1 in 82 (1.2%)	12%	26%	46%	71%
Kansas	Low	1 in 84 (1.2%)	11%	26%	45%	70%
Kentucky	**High**	1 in 36 (2.8%)	25%	51%	76%	94%
Louisiana	**Very High**	1 in 20 (5.0%)	40%	72%	92%	>99%
Maine	Low	1 in 62 (1.6%)	15%	34%	56%	80%
Maryland	Moderate	1 in 47 (2.1%)	19%	41%	66%	88%
Massachusetts	Moderate	1 in 50 (2.0%)	18%	40%	64%	87%
Michigan	Very Low	1 in 204 (0.5%)	5%	12%	22%	39%
Minnesota	Moderate	1 in 46 (2.2%)	20%	42%	67%	89%
Mississippi	**High***	1 in 39 (2.6%)	23%	48%	73%	93%

* Limited data reporting

COVID-19 State Prevalence Estimates

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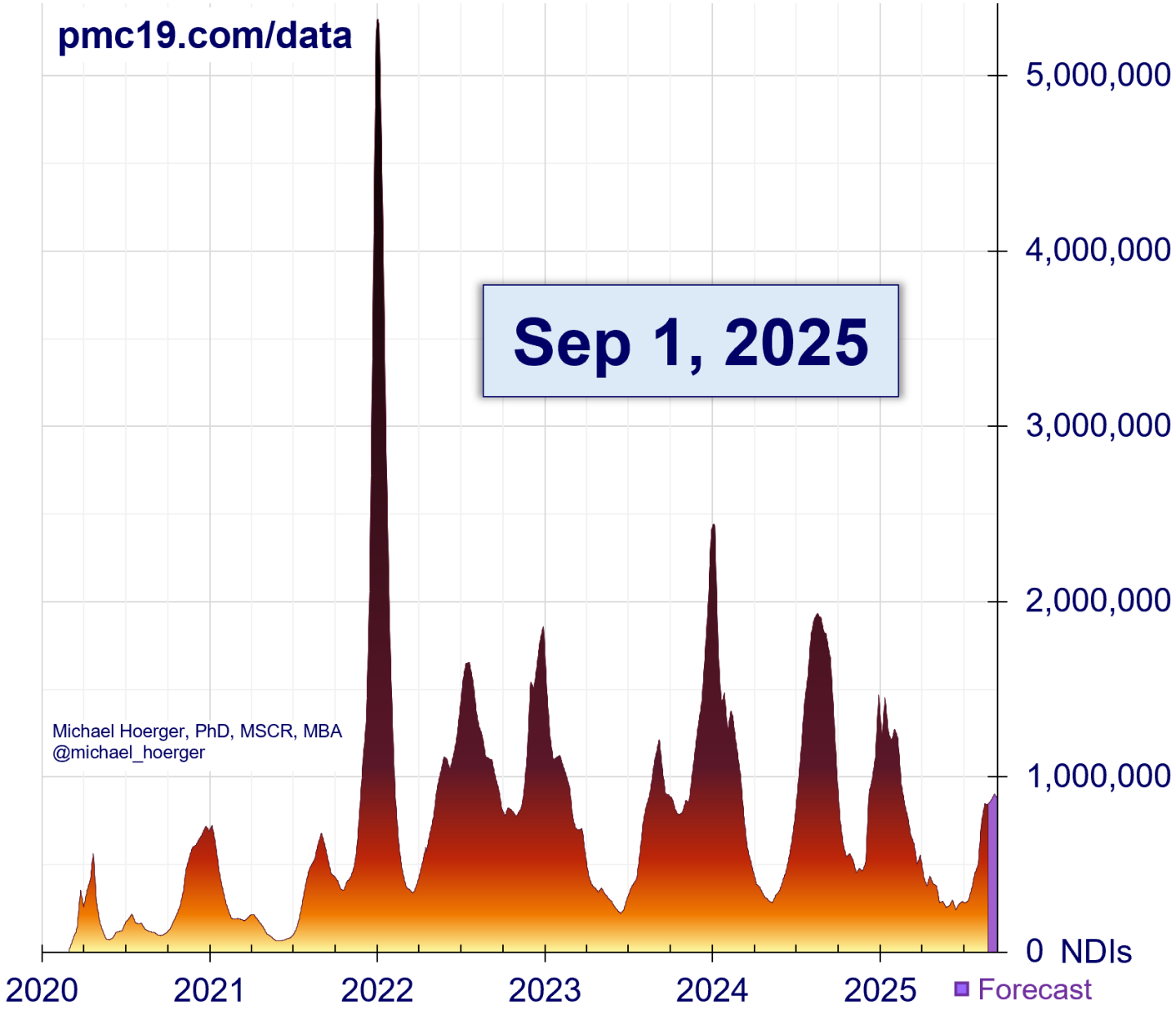
State	CDC Level	PMC Estimate, % Actively Infectious	Chances anyone is infectious in a room of 10 to 100 people			
			10	25	50	100
Missouri	**High***	1 in 33 (3.0%)	27%	54%	79%	95%
Montana	Low	1 in 82 (1.2%)	12%	26%	46%	71%
Nebraska	**Very High**	1 in 24 (4.2%)	35%	66%	88%	99%
Nevada	**Very High**	1 in 18 (5.4%)	43%	75%	94%	>99%
New Hampshire	Low	1 in 85 (1.2%)	11%	26%	45%	70%
New Jersey	Low	1 in 96 (1.0%)	10%	23%	41%	65%
New Mexico	Very Low	1 in 107 (0.9%)	9%	21%	37%	61%
New York	Very Low	1 in 109 (0.9%)	9%	21%	37%	60%
North Carolina	Moderate	1 in 41 (2.5%)	22%	46%	71%	92%
North Dakota	Moderate*	1 in 44 (2.3%)	21%	44%	68%	90%
Ohio	Very Low*	1 in 142 (0.7%)	7%	16%	30%	51%
Oklahoma	Very Low*	1 in 173 (0.6%)	6%	14%	25%	44%
Oregon	Moderate	1 in 56 (1.8%)	17%	36%	60%	84%
Pennsylvania	Low	1 in 96 (1.0%)	10%	23%	41%	65%
Rhode Island	Very Low	1 in 116 (0.9%)	8%	19%	35%	58%
South Carolina	**Very High**	1 in 17 (6.1%)	46%	79%	96%	>99%
South Dakota	**High**	1 in 29 (3.4%)	30%	58%	83%	97%
Tennessee	Moderate	1 in 60 (1.7%)	16%	34%	57%	82%
Texas	**Very High**	1 in 19 (5.2%)	41%	73%	93%	>99%
Utah	**Very High**	1 in 15 (6.9%)	51%	83%	97%	>99%
Vermont	Moderate	1 in 51 (2.0%)	18%	39%	63%	86%
Virginia	**High**	1 in 34 (3.0%)	26%	53%	78%	95%
Washington	**High**	1 in 32 (3.1%)	27%	55%	79%	96%
West Virginia	Low	1 in 74 (1.4%)	13%	29%	50%	75%
Wisconsin	Very Low	1 in 122 (0.8%)	8%	19%	34%	56%
Wyoming	Moderate	1 in 48 (2.1%)	19%	41%	65%	88%

* Limited reporting; North Dakota has no data and uses the average of MN, MT, & SD

SARS-CoV-2 New Daily Infections, Wastewater-Derived Estimates (U.S.)



The U.S. is experiencing an 11th COVID wave as vaccines are being restricted. It is unclear whether levels will hover steadily or rise to breach 1 million new daily infections. Note that estimates of the prior 3 waves have risen with CDC methodologic updates. Suggestions that “COVID is over” are not supported by data.

National COVID-19 Estimates (U.S.)

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Infections

Proportion Actively Infectious	1 in 56 (1.8%)
New Daily Infections	876,000
Infections the Past Week	6,040,000
Infections in 2025	153,000,000
Cumulative Infections per Person	4.57

Long COVID

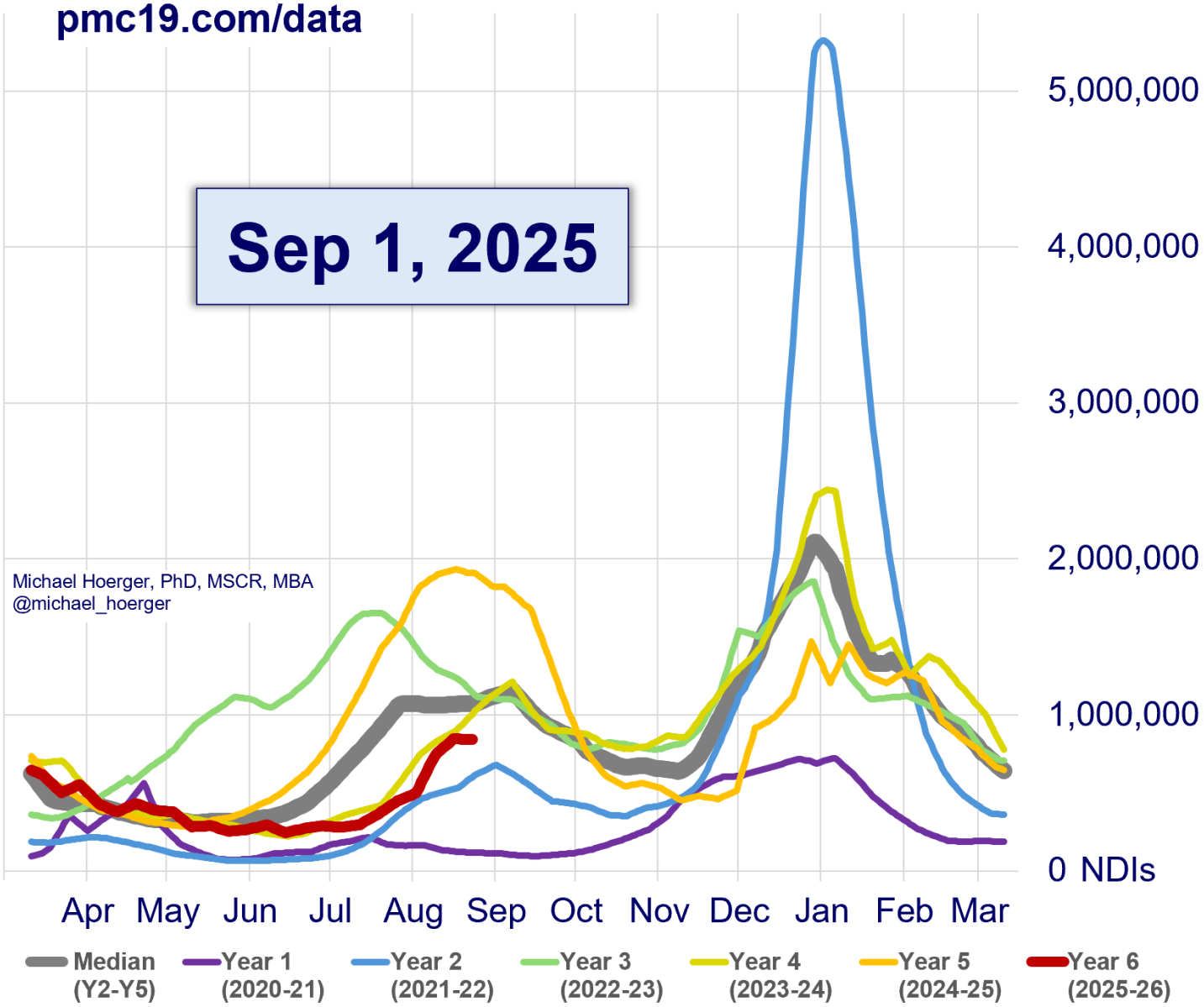
Long COVID Cases Resulting from New Daily Infections	44,000 to 175,000
Long COVID Cases Resulting from New Weekly Infections	302,000 to 1,210,000

Excess Deaths

Excess Deaths Resulting from New Daily Infections	250 to 420
Excess Deaths Resulting from New Weekly Infections	1,700 to 2,900

With the CDC update, the cumulative average infection count has risen to 4.57 infections nationwide with substantial individual variation. The U.S. experiences an estimated 6 million infections/week, likely to result in >300,000 new Long Covid cases and >1,700 excess deaths.

SARS-CoV-2 Year-Over-Year Estimates of Transmission (U.S.)



Transmission rose faster than any summer week the past 4 years, before leveling off quickly. Levels may stay flat a couple weeks or get retroactively corrected upward and more so resemble Year 4 (yellow line).

SARS-CoV-2 Transmission Forecast, Wastewater-Derived Estimates (U.S.)

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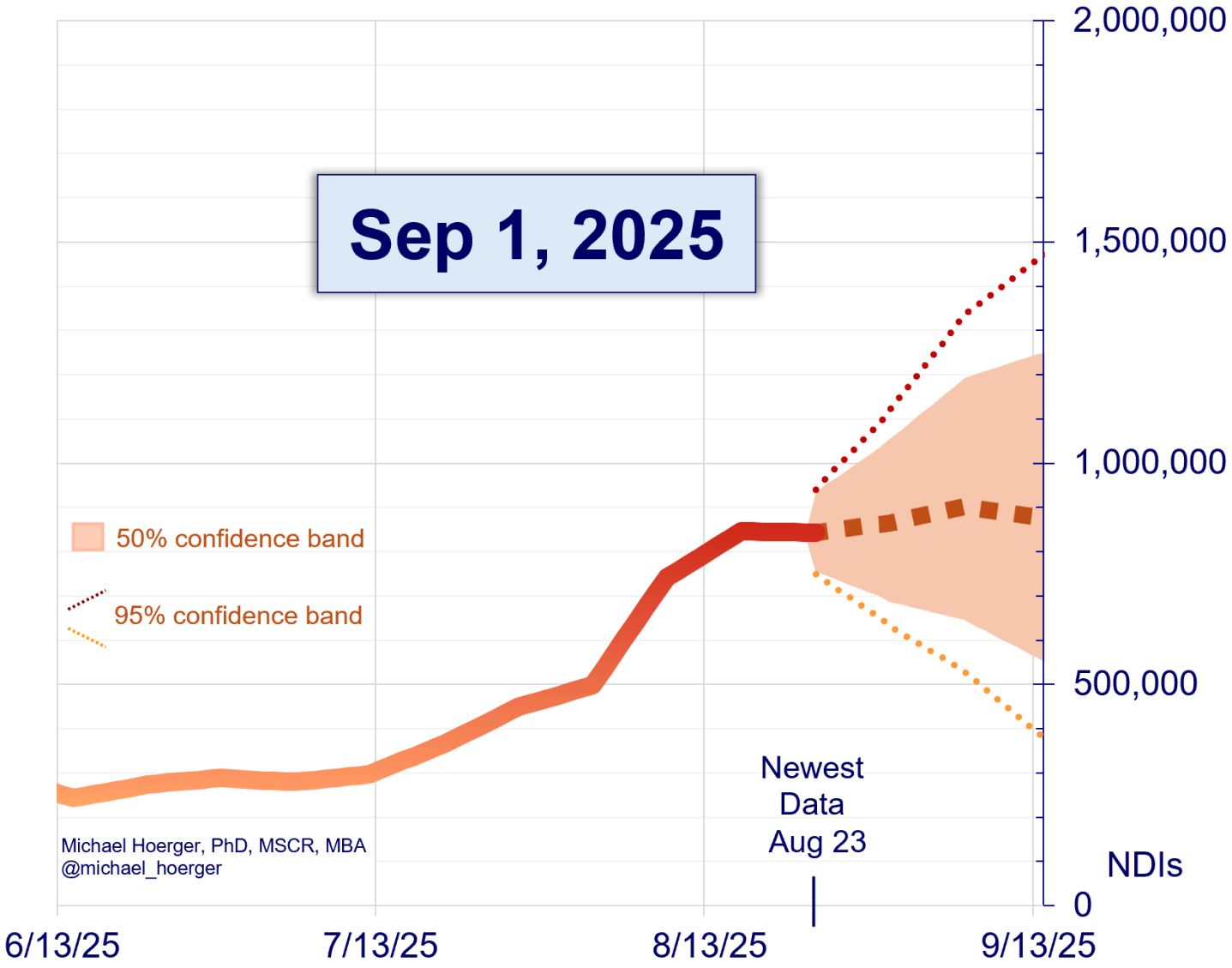

National levels are expected to peak around September 6. The broad confidence intervals arise from the updated model that adds uncertainty to the current real-time data, given unknow issues at the CDC. A 10% retroactive change is the difference between a large surge and quickly declining wave.

A separate document called a Technical Appendix appears on the dashboard page and has more methodologic info. Search for key answers there first, and then send a public comment tagging Dr. H. on Twitter if further help is needed.