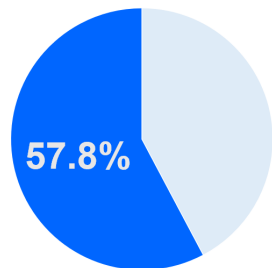
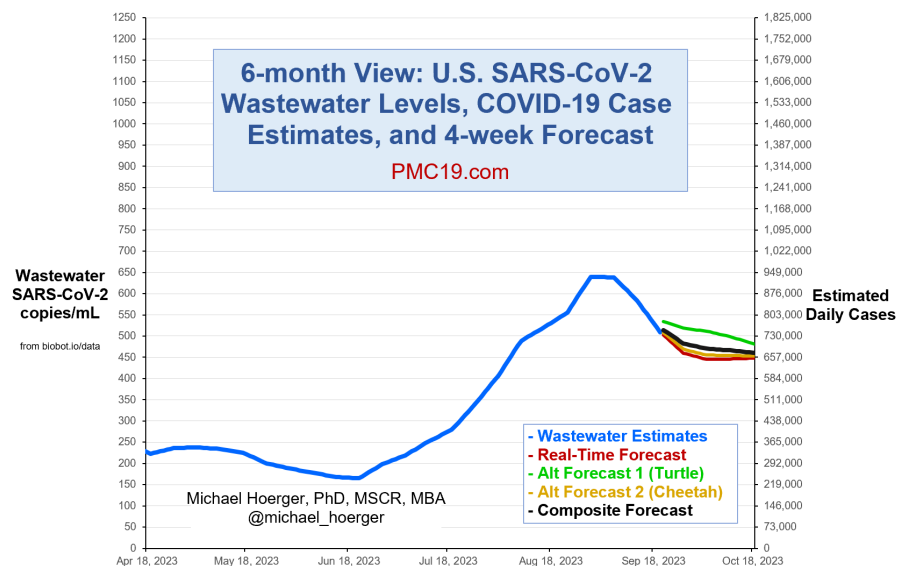
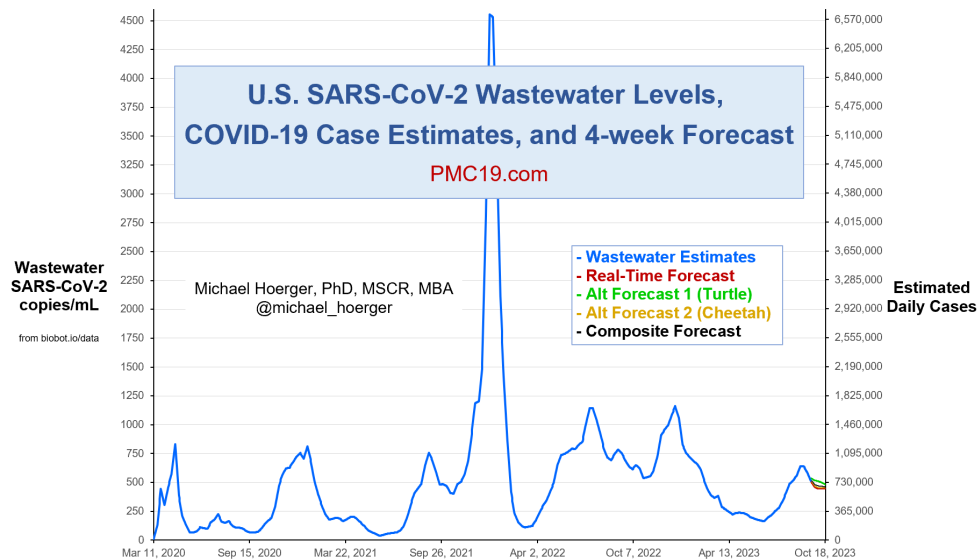


**Michael Hoerger, PhD, MSCR, MBA, Pandemic Mitigation Collaborative**  
**U.S. SARS-CoV-2 Wastewater Levels, COVID-19 Case Estimates, and 4-Week Forecast: Report for September 20, 2023, pmc19.com/data**



There is more COVID-19 transmission today than during 57.8% of the pandemic.

CURRENT ESTIMATES FOR September 20, 2023	
Wastewater Levels (copies/mL)	509
New Daily Cases	741,000
% of Population Infectious	1.55% (1 in 65 people)
New Daily Long COVID Cases	37,000 to 148,000

WEEKLY ESTIMATES FOR September 20, 2023	
New Weekly Cases	5,200,000
New Weekly Long COVID Cases	259,000 to 1,037,000

2023 CUMULATIVE ESTIMATES AS OF September 20, 2023	
Total 2023 Cases To Date	180,900,000
Total 2023 Long COVID Cases To Date	9,045,000 to 36,180,000

4-WEEK FORECAST FOR October 18, 2023	
Wastewater Levels (copies/mL)	461 (-9% lower)
New Daily Cases	671,000
% of Population Infectious	1.4% (1 in 71 people)
New Daily Long COVID Cases	34,000 to 134,000

**What's the COVID Risk in an Office or in a Classroom?**

Number of People	Chances Anyone is Infectious	Number of People	Chances Anyone is Infectious
1	1.6%	25	32.3%
2	3.1%	30	37.4%
3	4.6%	35	42.1%
4	6.1%	40	46.5%
5	7.5%	50	54.2%
6	8.9%	75	69.0%
7	10.4%	100	79.0%
8	11.8%	150	90.4%
9	13.1%	200	95.6%
10	14.5%	300	99.1%
15	20.9%	400	99.8%
20	26.8%	500	>99.9%

Cite as: Hoerger, M. (2023, September 20). *U.S. SARS-CoV-2 wastewater levels, COVID-19 case estimates, and 4-week forecast: Report for September 20, 2023*. Pandemic Mitigation Collaborative. <http://www.pmc19.com/data>

*\*Biotob was delayed reporting wastewater levels for September 20, so this report is intentionally brief, acknowledging new data will be likely available again in a few more days.*

**Informal Commentary:**

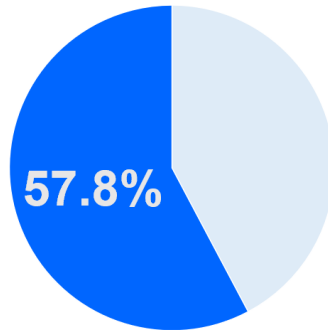
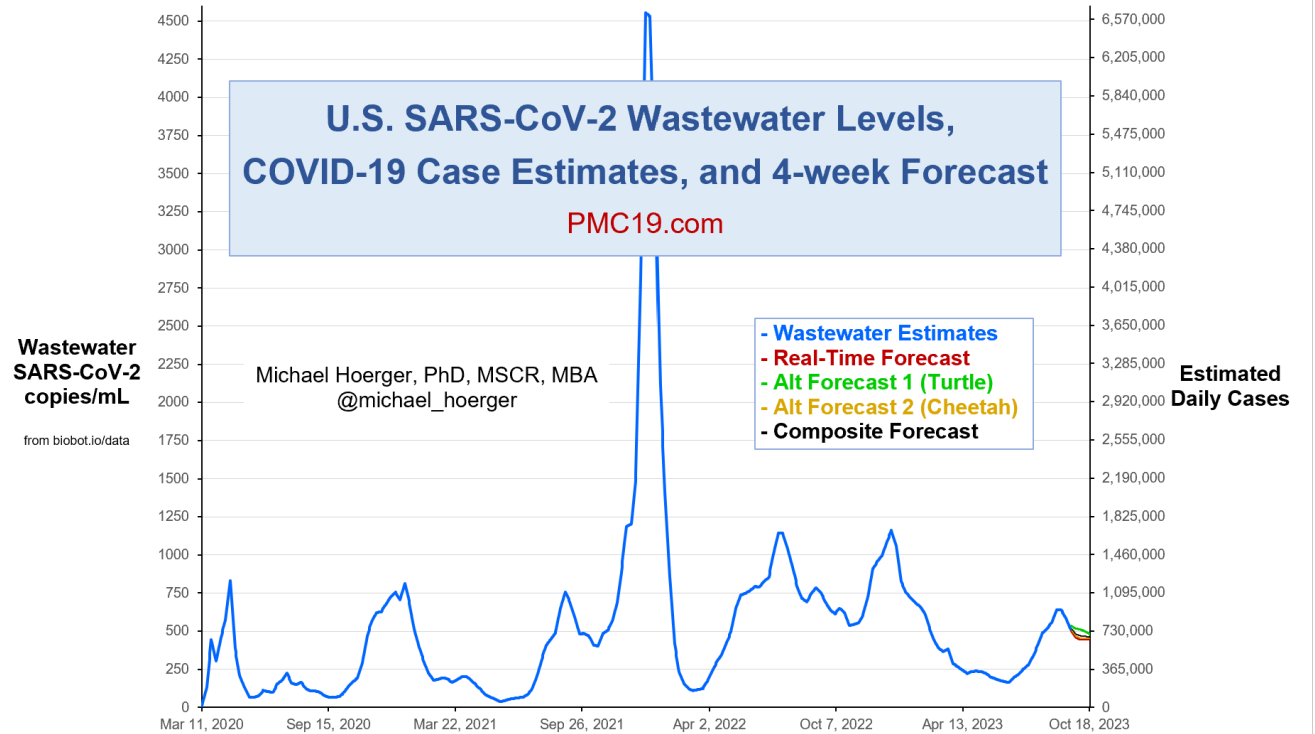
U.S. #wastewater levels are higher than during 58% of the pandemic:

- ◆ 1.55% (1 in 65) are infectious
- ◆ >740,000 COVID cases per day
- ◆ 37,000+ #LongCovid cases per day

**What's the Current State of the Pandemic?**

The 7th U.S. COVID wave has been huge, slightly smaller than Delta, and is now on the decline nationally.

We're seeing 5 million infections/week nationally, much higher than people realize, so now is a good time for advocacy.



There is more COVID-19 transmission today than during 57.8% of the pandemic.

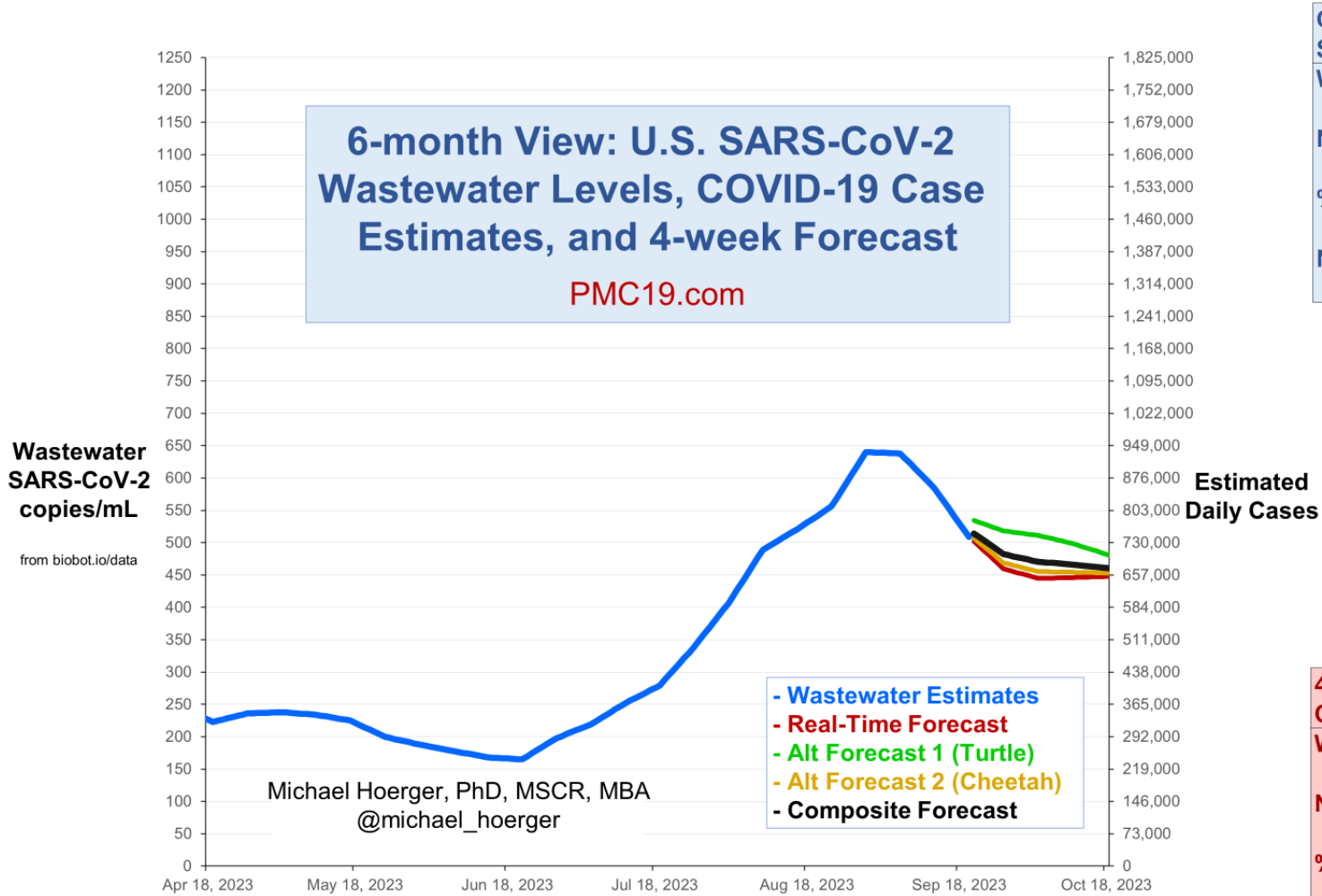
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### Forecast for the Next Month

We should see about 600,000-750,000 infections per day for the next month. This is a very high trough between waves. In mid-November (not pictured), we expect the start of an uptick toward a larger winter wave.



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### What's the Risk in an Office or in a Classroom?

The office and classroom risks remain quite bad. In a group of 10 people (daycare, team meeting, etc.), there's a >16% chance someone will have infectious COVID. In a group of 20-25 people (e.g., K-12 classroom, department meeting, busy hospital waiting room, etc.), there's 30-35% chance someone would have infectious COVID. In a university classroom of 40-50 people, it should be assumed someone has infectious COVID. This is quite troubling for instructors or students who mix time with multiple groups of classmates each week.

Not all classrooms and meetings are the same. ***The CDC has recently approved an updated booster, available to anyone older than 6 months, and can be scheduled as early as next week.***

Virtual meetings reduce risk close to zero. Outdoor meetings are often safer than indoors. Testing reduces risk, as do policies that encourage people to stay home when symptomatic. High-quality, well-fitting masks greatly reduce risk. Air quality monitoring and improved air cleaning reduce risk. Recent boosters reduce risk. It remains troubling that elected leaders and public health officials choose to model poor mitigation when ongoing risk is so high.

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