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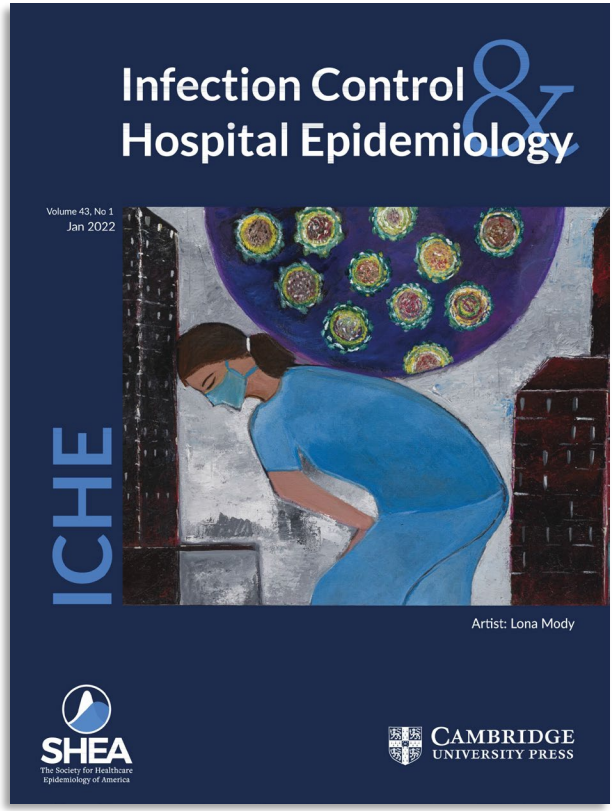

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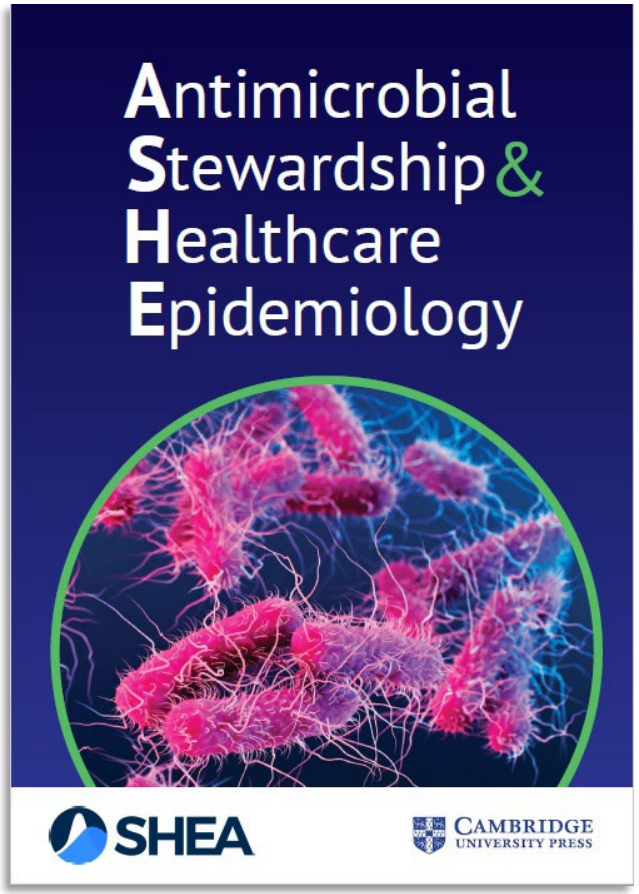
ASHE JOURNAL



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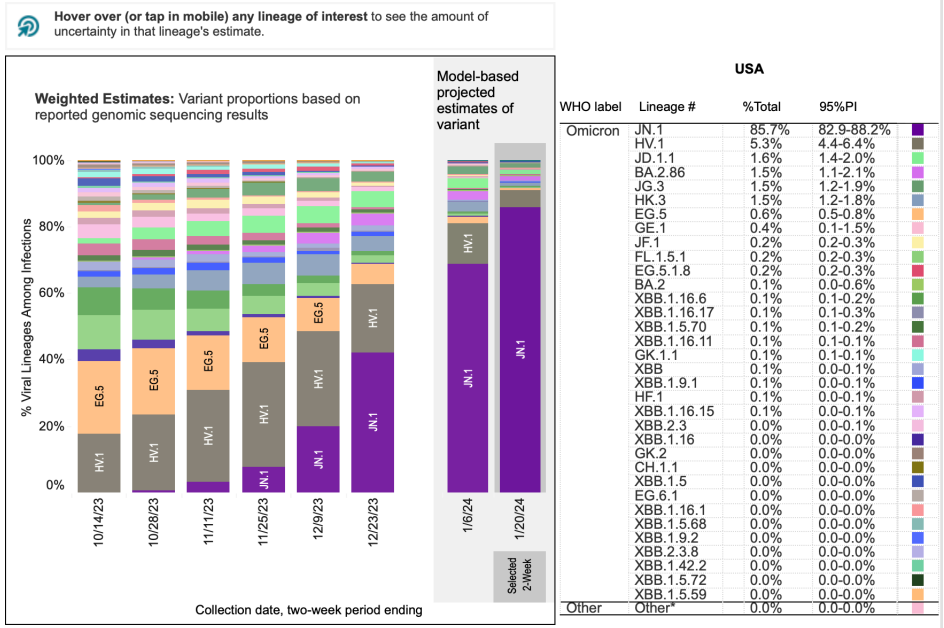
SHEA Town Hall 94
Overview

SARS-CoV-2 VARIANTS, US, CDC

Weighted and Nowcast Estimates in United States for 2-Week Periods in 10/1/2023 – 1/20/2024

Nowcast Estimates in United States for 1/7/2024 – 1/20/2024



USA

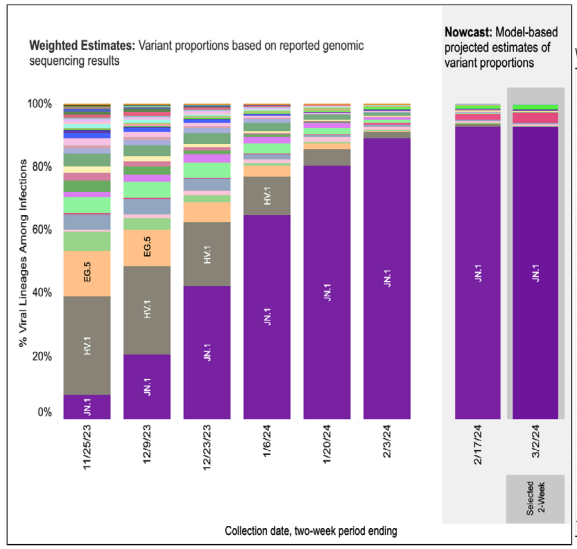
WHO label	Lineage #	%Total	95%PI
Omicron	JN.1	85.7%	82.9-88.2%
	HV.1	5.3%	4.4-6.4%
	JD.1.1	1.6%	1.4-2.0%
	BA.2.86	1.5%	1.1-2.1%
	JG.3	1.5%	1.2-1.9%
	HK.3	1.5%	1.2-1.8%
	EG.5	0.6%	0.5-0.8%
	GE.1	0.4%	0.1-1.5%
	JF.1	0.2%	0.2-0.3%
	FL.1.5.1	0.2%	0.2-0.3%
	EG.5.1.8	0.2%	0.2-0.3%
	BA.2	0.1%	0.0-0.6%
	XBB.1.16.6	0.1%	0.1-0.2%
	XBB.1.16.17	0.1%	0.1-0.3%
	XBB.1.5.70	0.1%	0.1-0.2%
	XBB.1.16.11	0.1%	0.1-0.1%
	GK.1.1	0.1%	0.1-0.1%
	XBB	0.1%	0.0-0.1%
	XBB.1.9.1	0.1%	0.0-0.1%
	HF.1	0.1%	0.0-0.1%
	XBB.1.16.15	0.1%	0.0-0.1%
	XBB.2.3	0.0%	0.0-0.1%
	XBB.1.16	0.0%	0.0-0.0%
	GK.2	0.0%	0.0-0.0%
	CH.1.1	0.0%	0.0-0.0%
	XBB.1.5	0.0%	0.0-0.0%
	EG.6.1	0.0%	0.0-0.0%
	XBB.1.16.1	0.0%	0.0-0.0%
	XBB.1.5.68	0.0%	0.0-0.0%
	XBB.1.9.2	0.0%	0.0-0.0%
	XBB.2.3.8	0.0%	0.0-0.0%
	XBB.1.42.2	0.0%	0.0-0.0%
	XBB.1.5.72	0.0%	0.0-0.0%
	XBB.1.5.59	0.0%	0.0-0.0%
Other	Other*	0.0%	0.0-0.0%

* Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one 2-week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all 2-week periods displayed.
\# While all lineages are tracked by CDC, those named lineages not enumerated in this graphic are aggregated with their parent lineages, based on Pango lineage definitions, described in more detail here: https://www.pango.network/the-pango-nomenclature-system/statement-of-nomenclature-rules/.

Data from 10/1/23 – 1/20/2024

Weighted and Nowcast Estimates in United States for 2-Week Periods in 11/12/2023 – 3/2/2024

Nowcast Estimates in United States for 2/18/2024 – 3/2/2024



USA

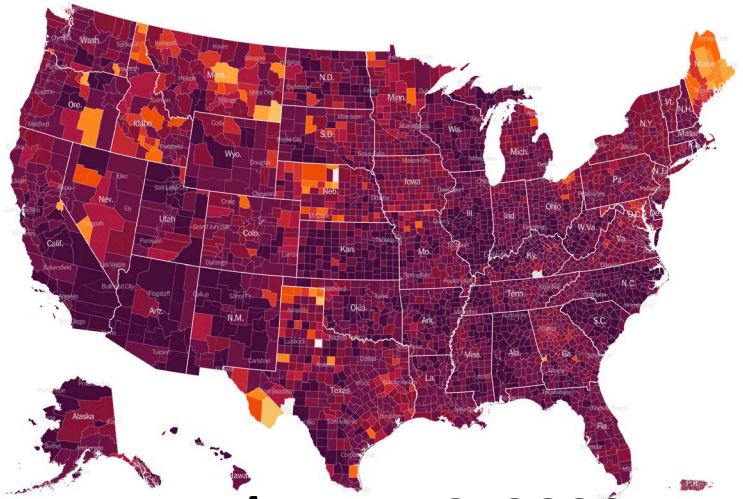
WHO label	Lineage #	%Total	95%PI
Omicron	JN.1	92.3%	90.5-93.8%
	JN.1.13	3.3%	1.8-5.7%
	JN.1.18	1.8%	1.1-2.9%
	HV.1	0.4%	0.3-0.5%
	BA.2.86	0.3%	0.2-0.5%
	JG.3	0.2%	0.1-0.2%
	BA.2	0.2%	0.0-0.7%
	JD.1.1	0.1%	0.1-0.2%
	HK.3	0.1%	0.0-0.1%
	EG.5	0.0%	0.0-0.0%
	XBB	0.0%	0.0-0.0%
	GE.1	0.0%	0.0-0.1%
	EG.5.1.8	0.0%	0.0-0.0%
	JF.1	0.0%	0.0-0.0%
	XBB.1.9.1	0.0%	0.0-0.0%
	FL.1.5.1	0.0%	0.0-0.0%
	XBB.1.16.15	0.0%	0.0-0.0%
	XBB.1.5.70	0.0%	0.0-0.0%
	XBB.2.3	0.0%	0.0-0.0%
	XBB.1.16.6	0.0%	0.0-0.0%
	XBB.1.16.11	0.0%	0.0-0.0%
	HF.1	0.0%	0.0-0.0%
	GK.1.1	0.0%	0.0-0.0%
	XBB.1.16	0.0%	0.0-0.0%
	GK.2	0.0%	0.0-0.0%
	XBB.1.9.2	0.0%	0.0-0.0%
	XBB.1.5	0.0%	0.0-0.0%
	XBB.1.42.2	0.0%	0.0-0.0%
	XBB.1.16.1	0.0%	0.0-0.0%
	EG.6.1	0.0%	0.0-0.0%
Other	Other*	1.1%	0.6-2.0%

* Enumerated lineages are US VOC and lineages circulating above 1% nationally in at least one 2-week period. "Other" represents the aggregation of lineages which are circulating <1% nationally during all 2-week periods displayed.
\# While all lineages are tracked by CDC, those named lineages not enumerated in this graphic are aggregated with their parent lineages, based on Pango lineage definitions, described in more detail here: https://www.pango.network/the-pango-nomenclature-system/statement-of-nomenclature-rules/.

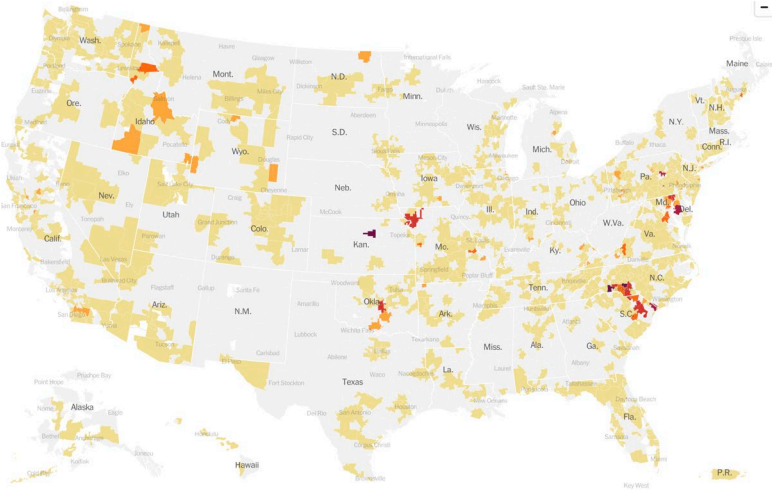
Data from 11/12/23 – 3/2/2024

https://covid.cdc.gov/covid-data-tracker/#variant-proportions

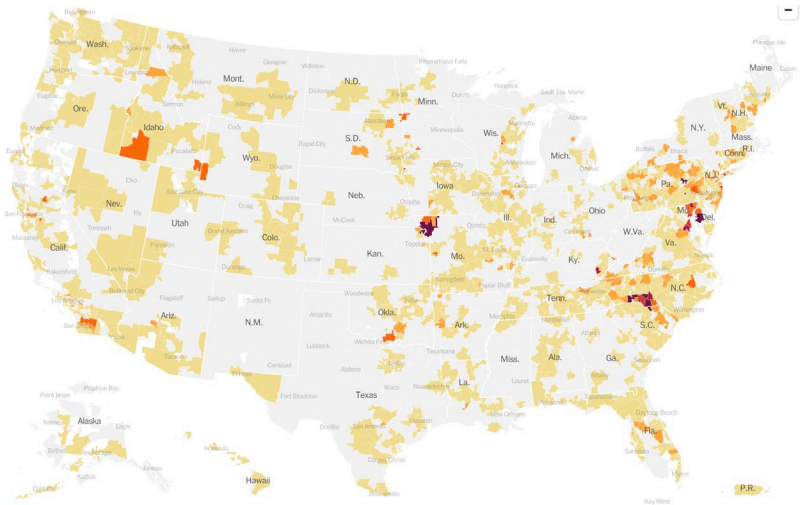
US COVID-19 Hotspots



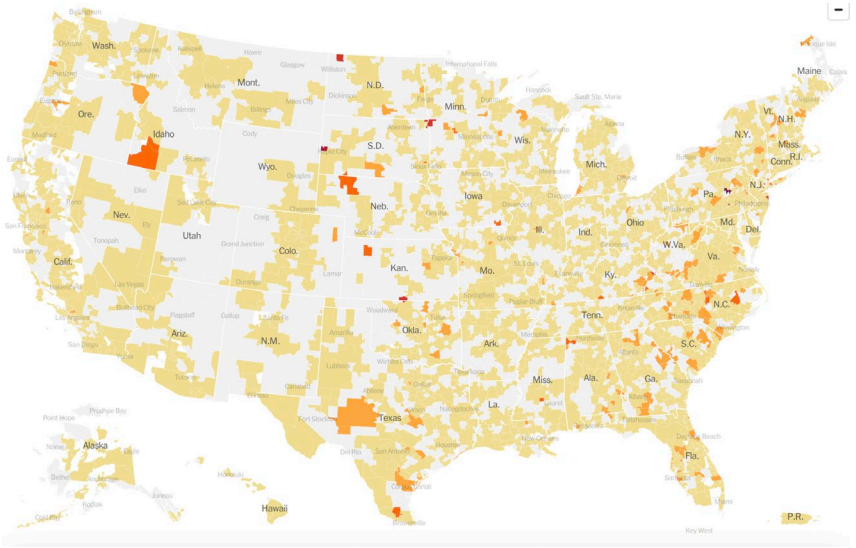
February 6, 2022



November 17, 2023



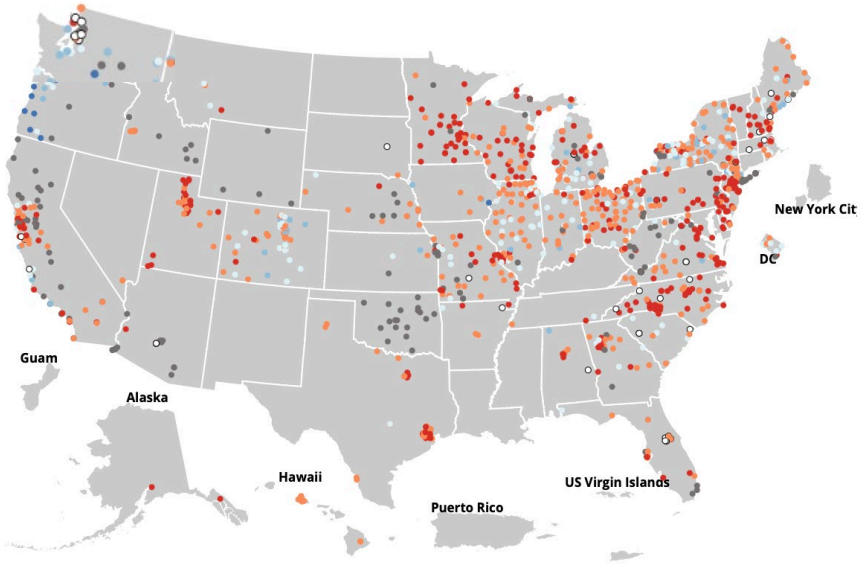
February 4, 2024



March 6, 2023

Source: New York Times https://www.nytimes.com/interactive/2023/us/covid-cases.html 3-9-2024

COVID-19 WASTEWATER SURVEILLANCE

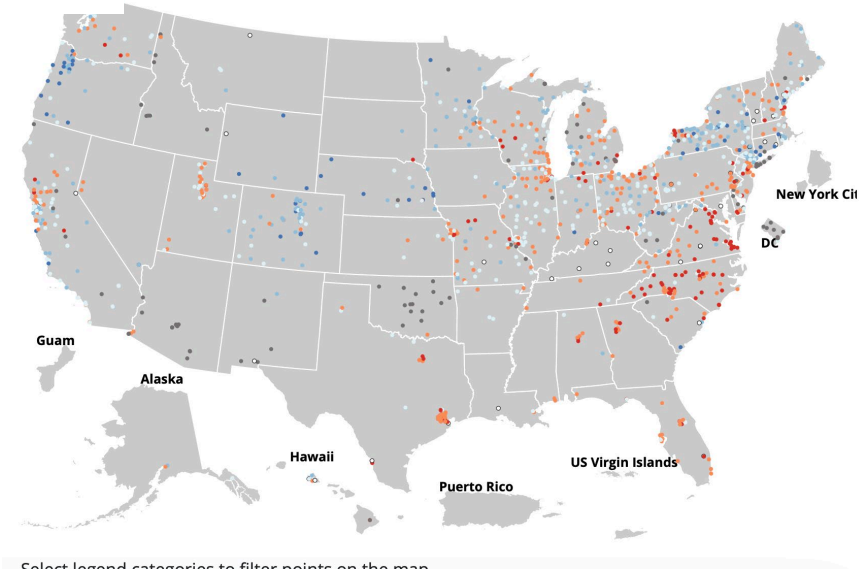


Current virus levels category	Num. sites	% sites	Category change in last 7 days
New Site	37	3	9%
0% to 19%	13	1	8%
20% to 39%	65	6	63%
40% to 59%	191	17	18%
60% to 79%	472	41	– 3%
80% to 100%	371	32	– 24%

February 4, 2024

Current SARS-CoV-2 virus levels by site, United States

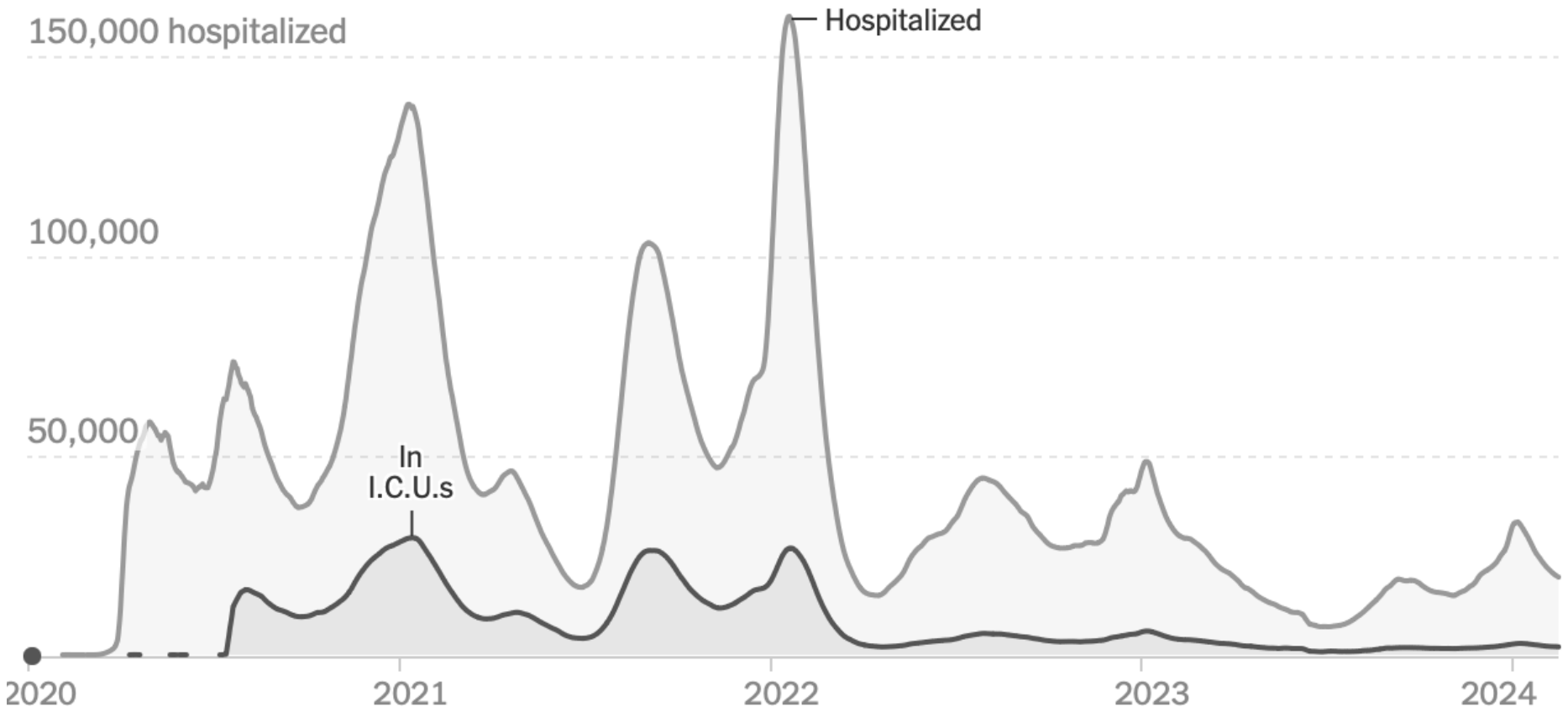
Current virus levels category	Num. sites	% sites	Category change in last 7 days
New Site	33	3	6%
0% to 19%	72	6	18%
20% to 39%	241	19	– 1%
40% to 59%	399	32	– 4%
60% to 79%	368	30	– 12%
80% to 100%	130	10	– 4%



March 9, 2024

Source: *CDC – https://covid.cdc.gov/covid-data-tracker/#wastewater-surveillance Accessed 3-9-2024*

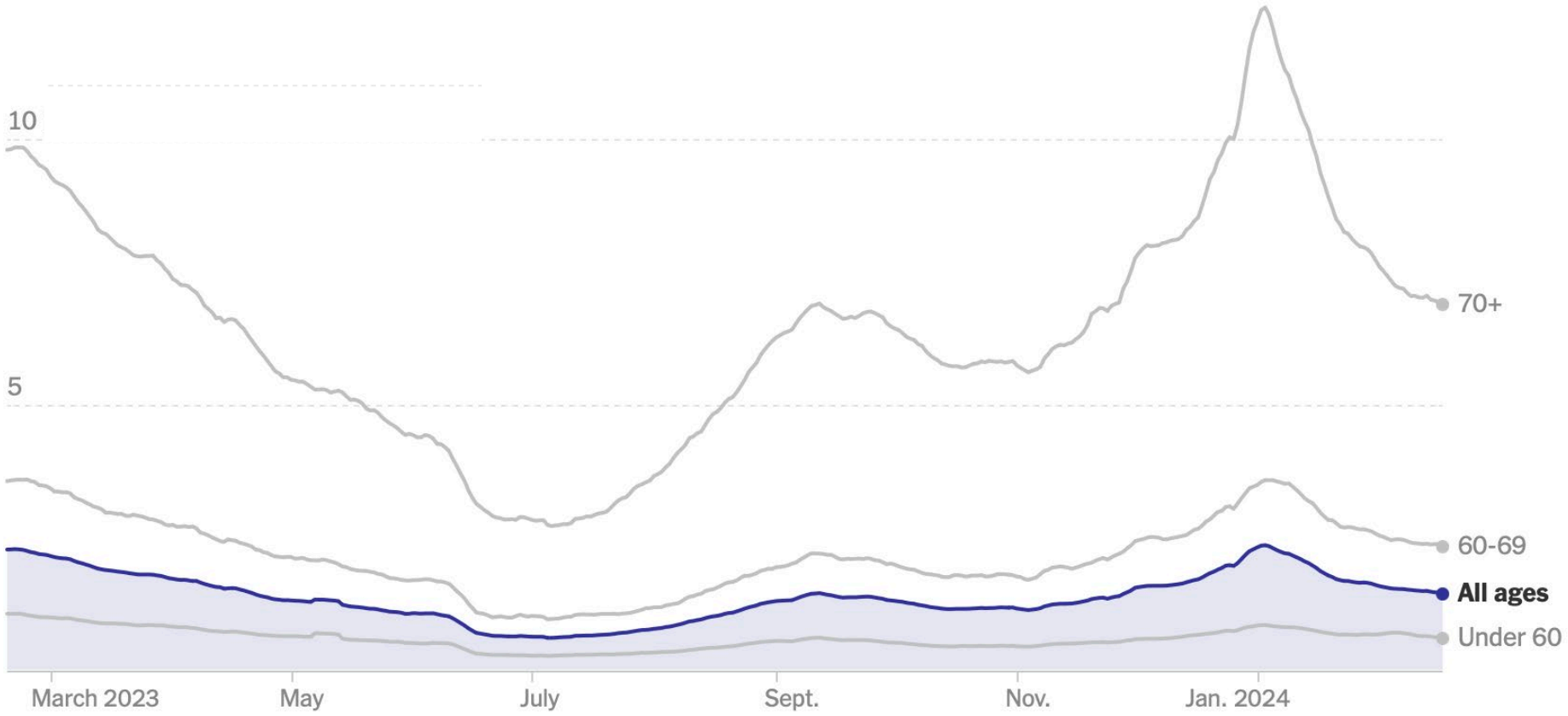
HOSPITALIZATIONS AND ICU HOSPITALIZATIONS FOR COVID-19 IN THE UNITED STATES



Hospitalizations decreased by 15.2% from our last Town Hall
ICU admissions decreased by 11.8% from our last Town Hall

Source: ***https://www.nytimes.com/interactive/2023/us/covid-cases.html*** ***accessed 3-9-24***

COVID-19 Daily Hospital Admissions in the United States, by Age

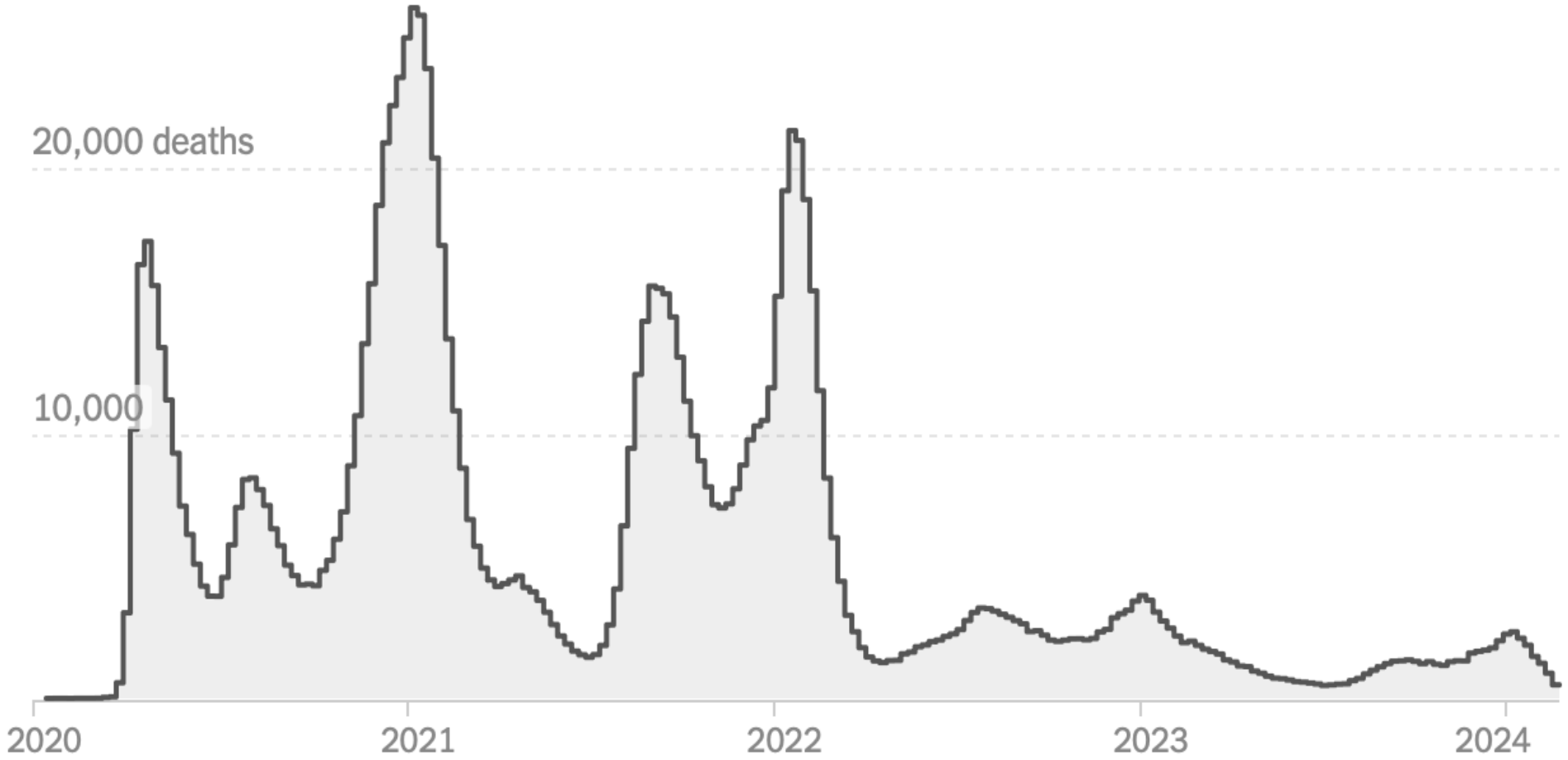


Daily hospitalizations decreased by 7.6% from two weeks ago

Source: New York Times 3-7-2024

COVID-19 Deaths in the United States

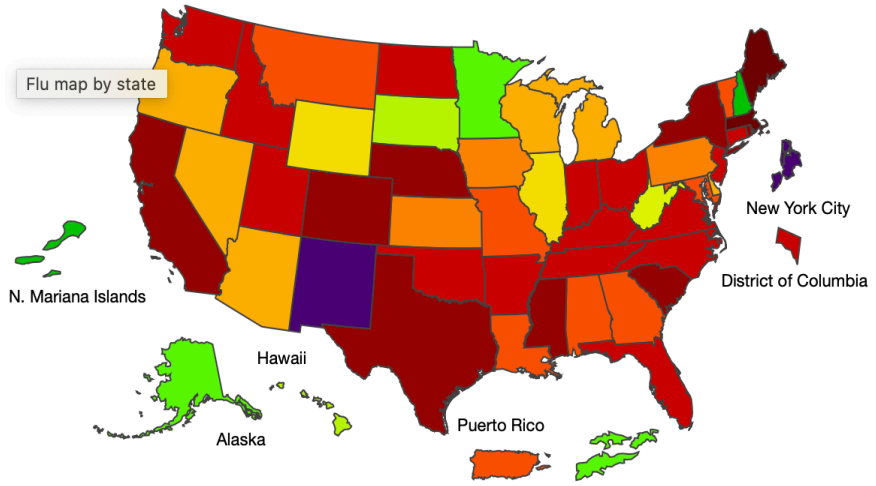
Cumulative Deaths – 1,181,607



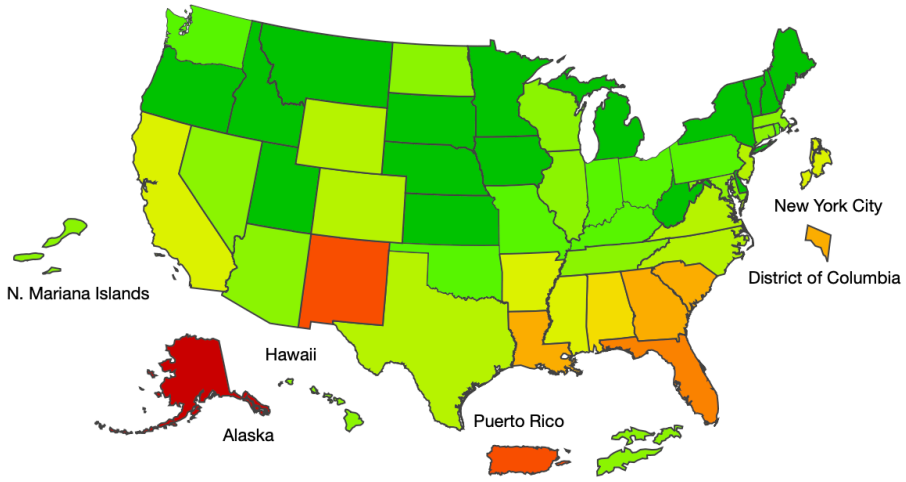
67.7% decreased from our last Town Hall

Source: NY Times https://www.nytimes.com/interactive/2023/us/covid-cases.html 3-7-24

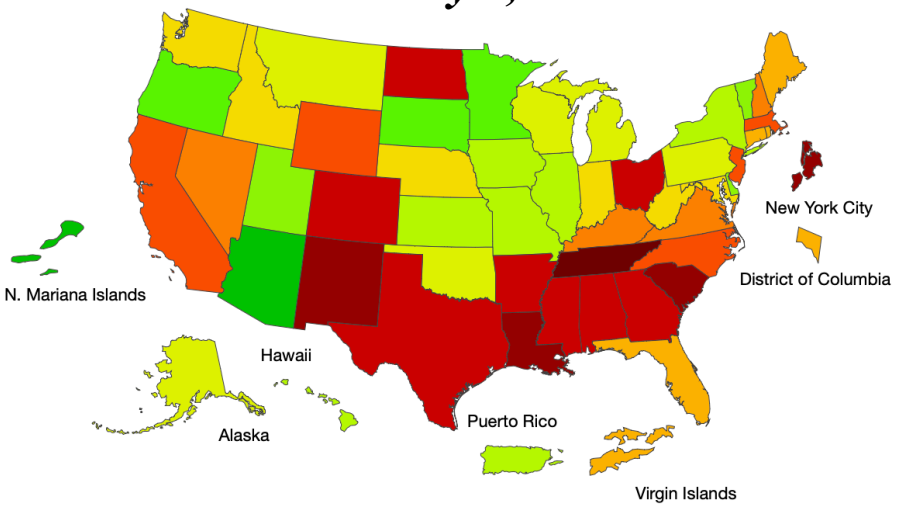
Influenza Activity by State in the United States



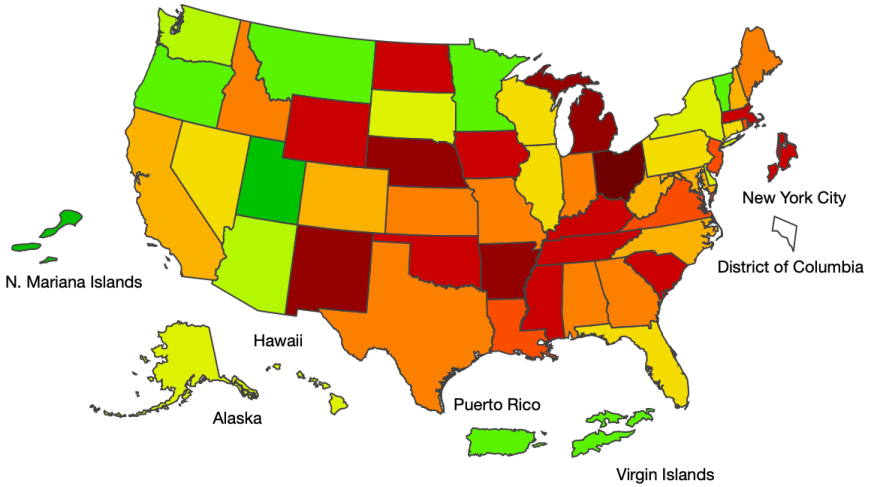
January 8, 2023



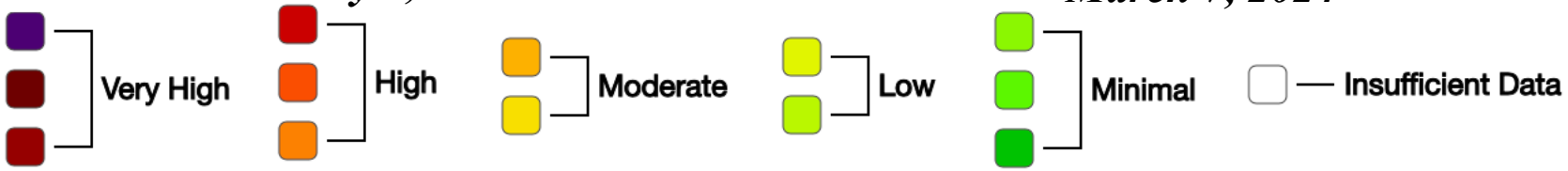
November 17, 2023



February 4, 2024

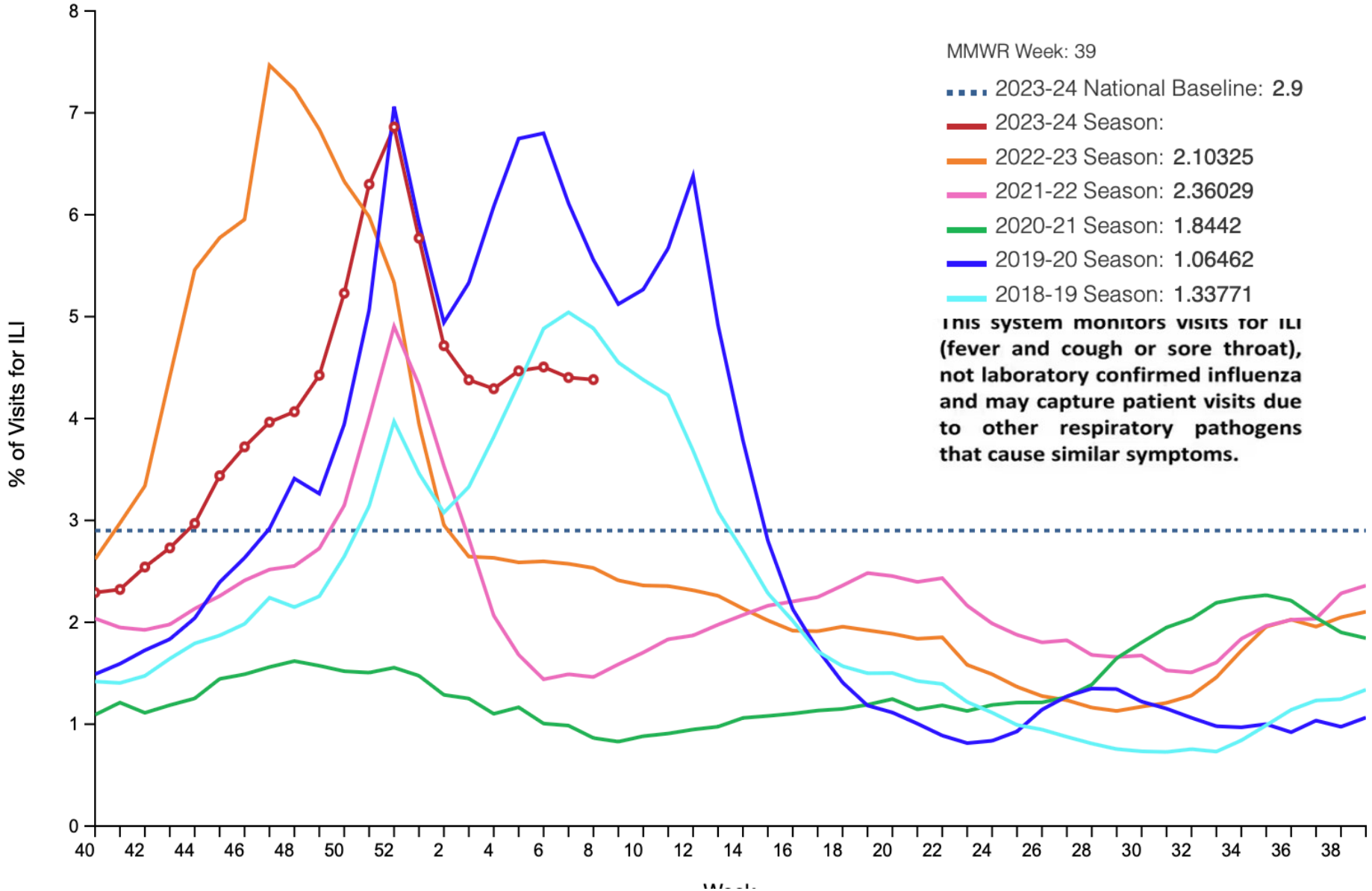


March 7, 2024



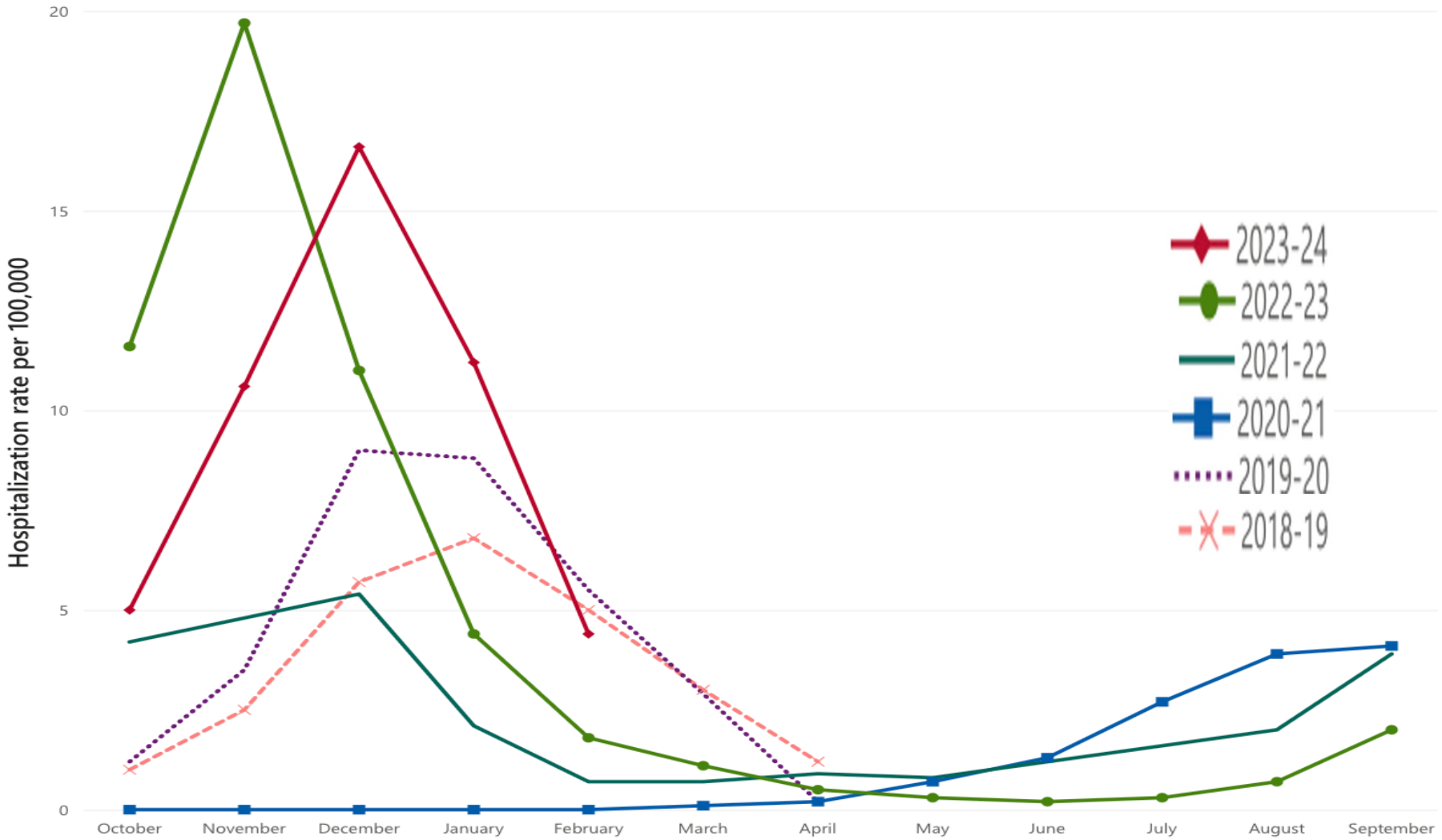
Source: CDC https://www.cdc.gov/flu/weekly/usmap.htm 3-7-2024

Percentage of Outpatient Visits for Influenza-Like Illness



Source: *CDC – https://www.cdc.gov/flu/weekly/index.htm – 3-7-2024*

HOSPITALIZATIONS FOR RESPIRATORY SYNCYTIAL VIRUS, U.S.



Source: *CDC – https://www.cdc.gov/rsv/research/rsv-net/dashboard.html 3-7-24*

Today's Emerging Infectious Disease News

1. *A large cohort study published in **JAMA** conducted in Denmark and involving more than a million individuals 65 years of age and older found no increased risk for 28 adverse events following vaccination with the monovalent XBB.1.5-containing vaccine.*
2. *A **New England Journal of Medicine** study found no difference in cognitive function among COVID patients who recovered quickly versus those who had more protracted illnesses, though even short-duration COVID was associated with small cognitive deficits.*
3. *A large Japanese and Korean study of COVID patients published in the **Annals of Internal Medicine** found SARS-CoV-2 infection associated with increased risk for incident autoinflammatory rheumatic disease (AIRD) compared with those without SARS-CoV-2 infection or those with influenza. The risk for AIRD was higher with greater severity COVID.*
4. *Results of a placebo-controlled trial published in **Lancet Infectious Diseases** found that VV116 (Mindeudesivir) significantly reduced the time to sustained clinical symptom resolution compared with placebo, with no observed safety concerns.*
5. *A study published in **JAMA** found the bivalent COVID vaccines effective in protecting children and adolescents from SARS-CoV-2 infection and symptomatic COVID.*
6. *A paper in **JAMA Network Open** described severe COVID in vaccinated adults who have hematologic cancers in the VA; odds of severe COVID remained high for these patients despite vaccination. Administration of oral antiviral drugs improved outcomes for these patients.*
7. *Another **JAMA Network Open** paper assessed the safety and efficacy of a protease inhibitor, Ensitrelvir, and found that it also reduced the time to symptom resolution with no safety issues.*
8. *A **Lancet Infectious Diseases** paper reported an individual who received 217 COVID-19 vaccine doses.*
9. *On February 28 the **CDC** Director endorsed new ACIP recommendations for vaccination for those 65 and older and on March 1, CDC issued new respiratory virus guidance significantly shortening the time someone needs to stay home after diagnosis.*

References available in the chat

Panelists:

Dr. David Henderson
NIH Consultant

Dr. Tara Palmore
NIAID/NIH

Dr. Kristina Bryant
University of Louisville

Dr. David Weber
UNC School of Medicine

COVID-19: CURRENT CDC ISOLATION GUIDELINES FOR THE COMMUNITY AND HEALTHCARE FACILITIES, AND DURATION OF INFECTIVITY

David J. Weber, MD, MPH, FIDSA, FSHEA, FRSM (London)
Sanders Distinguished Professor of Medicine, Pediatrics and Epidemiology
Associate Chief Medical Officer, UNC Medical Center
Medical Director, Hospital Epidemiology, UNC Medical Center
University of North Carolina at Chapel Hill

UNC
SCHOOL OF MEDICINE

Disclosures: Consultancy; Pfizer, GSK, PDI, BD, GAMA, Germitec

Respiratory Virus Guidance Update FAQs, CDC

- The updated Respiratory Virus Guidance recommends that people stay home and away from others until at least 24 hours after both their symptoms are getting better overall, and they have not had a fever (and are not using fever-reducing medication). It is important to note that the updated guidance states that testing is an option during the 5 days of additional precautions following the "stay home" period.

Rationale for new guidance

- Effective vaccines against all three major viruses (influenza, RSV, COVID-19) are now widely available
- Effective treatments are also widely available: Paxlovid cuts the risk of hospitalization by over half and the risk of death by even more (75%).
- Population immunity to COVID-19 is high: >98% of U.S. population now has some protective immunity against COVID-19 from vaccination, prior infection, or both.
- As a result, far fewer people are getting seriously ill from COVID-19.
    - Fewer hospitalizations and deaths: Weekly hospital admissions for COVID-19 are down more than 75% from the peak of the initial Omicron wave in January 2022, and deaths are down by more than 90%. In 2022, COVID-19 accounted for more than 245,000 deaths. Last year, that number was around 76,000.
    - Fewer complications: Complications like multisystem inflammatory syndrome in children (MIS-C) are now also less common, and prevalence of Long COVID is also going down.

https://www.cdc.gov/respiratory-viruses/guidance/faq.html

Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic, CDC

Duration of Transmission-Based Precautions for Patients with SARS-CoV-2 Infection: In general, patients should continue to wear source control until symptoms resolve or, for those who never developed symptoms, until they meet the criteria to end isolation below. Then they should revert to usual facility source control policies for patients.

- Patients with mild to moderate illness who are not moderately to severely immunocompromised:
  - At least 10 days have passed since symptoms first appeared and
  - At least 24 hours have passed since last fever without the use of fever-reducing medications and
  - Symptoms (e.g., cough, shortness of breath) have improved
- Patients who were asymptomatic throughout their infection and are not moderately to severely immunocompromised:
  - At least 10 days have passed since the date of their first positive viral test.
- Patients with severe to critical illness and who are not moderately to severely immunocompromised:
  - At least 10 days and up to 20 days have passed since symptoms first appeared and
  - At least 24 hours have passed since last fever without the use of fever-reducing medications and
  - Symptoms (e.g., cough, shortness of breath) have improved
  - The test-based strategy as described for moderately to severely immunocompromised patients below can be used to inform the duration of isolation.

CDC, Updated May 8, 2023. https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html

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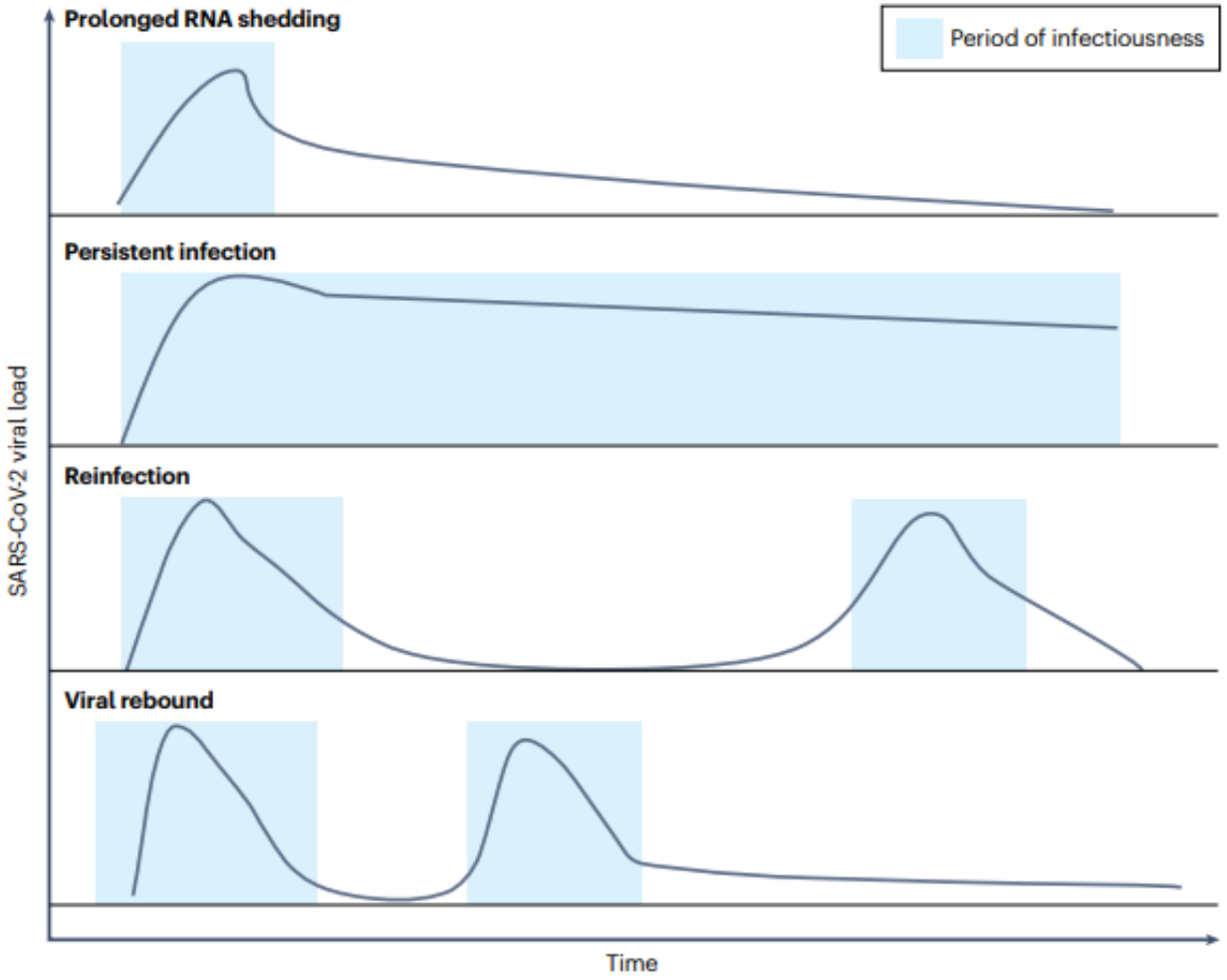


Fig. 4 | The four scenarios for repeated SARS-CoV-2 PCR positivity. A repeat positive test may indicate either ongoing RNA shedding (without replication-competent virus), persistent active viral replication from a prolonged infection, reinfection with a new SARS-CoV-2 virus (after the clearance of previous infection), or viral rebound that either occurs spontaneously or following treatment with nirmatrelvir–ritonavir (NMV–r). Distinguishing between these possibilities in clinical settings is crucial to manage patients appropriately. The first graph represents prolonged RNA shedding. In this scenario, after the initial period of infectiousness, patients continue to shed RNA. However, this represents unviable virus picked up by real-time PCR. The second graph corresponds to persistent infection, in which after the initial period of infectiousness, infection is not resolved and there is an ongoing replication of viable virus. The third graph represents reinfection, a new infection after the period of complete resolution of the first infection. Patients do not shed viable virus in between infections. Last, the fourth graph depicts viral rebound; in this case, we see an increase in viral load following initial decline, which is seen more often after antiviral treatment.

Meyerowitz EA, et al.

MEASURING DURATION OF COVID-19 INFECTIVITY

- SARS-CoV-2 – Ag testing
- SARS-CoV-2 – PCR testing
- SARS-CoV-2 – Quantitative PCR (or cycle number)
- SARS-CoV-2 – Viable virus
- SARS-CoV-2 – Transmission studies

Duration of Viable Virus Shedding in SARS-CoV-2 Omicron Variant Infection

Clinical features of SARS-CoV-2 Omicron variant infection, including incubation period and transmission rates, distinguish this variant from preceding variants. However, whether the duration of shedding of viable virus differs between omicron and previous variants is not well understood. To characterize how variant and vaccination status impact shedding of viable virus, we serially sampled symptomatic outpatients newly diagnosed with COVID-19. Anterior nasal swabs were tested for viral load, sequencing, and viral culture. Time to PCR conversion was similar between individuals infected with the Delta and the Omicron variant. Time to culture conversion was also similar, with a median time to culture conversion of 6 days (interquartile range 4-8 days) in both groups. There were also no differences in time to PCR or culture conversion by vaccination status.

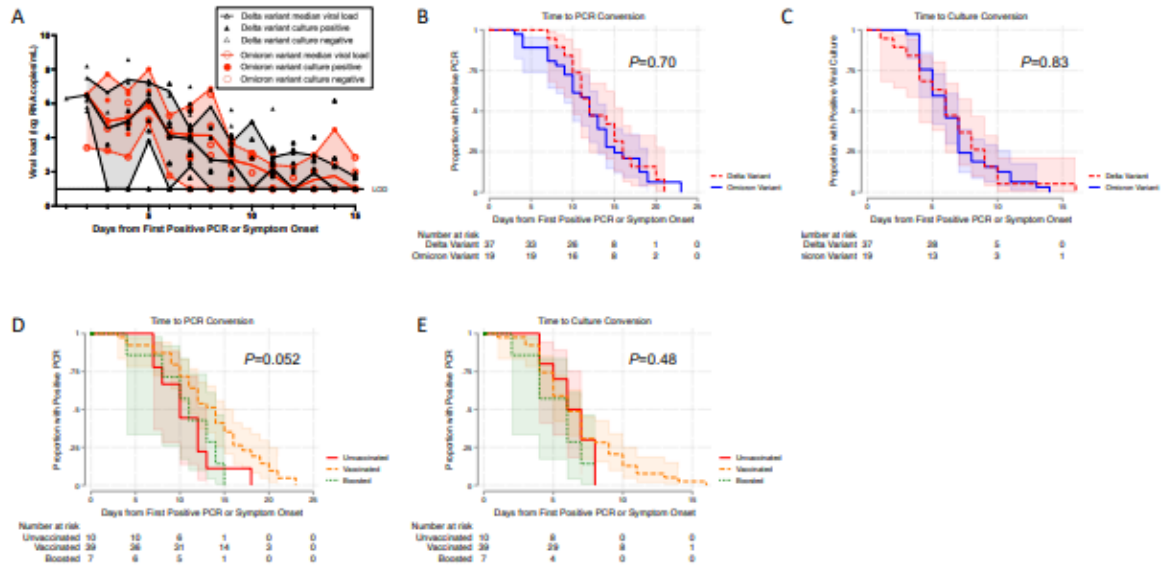


Figure 1. Virologic decay from time of first positive PCR or symptom onset. Observations indicate viral loads from nasal swabs from individual patient samples. Fit indicates the median viral load at each time point by variant. Shaded areas represent 95% confidence intervals. 1B-1E. Kaplan-Meier survival curves demonstrating time to negative PCR by viral variant (B) and vaccination status (D) and time to negative viral culture by viral variant (C) and vaccination status (E). Shaded areas indicate 95% confidence intervals from the survival curves. *P*-values represent log-rank testing comparing the sub-groups on each plot.

Boucau J, et al. 2022;2 March. https://doi.org/10.1101/2022.03.01.22271582

Duration of Infectious Virus Shedding by SARS-CoV-2 Omicron Variant–Infected Vaccinees

To determine virus shedding duration, we examined clinical samples collected from the upper respiratory tracts of persons infected with severe acute respiratory syndrome coronavirus 2 Omicron variant in Japan during November 29–December 18, 2021. Vaccinees with mild or asymptomatic infection shed infectious virus 6–9 days after onset or diagnosis, even after symptom resolution.

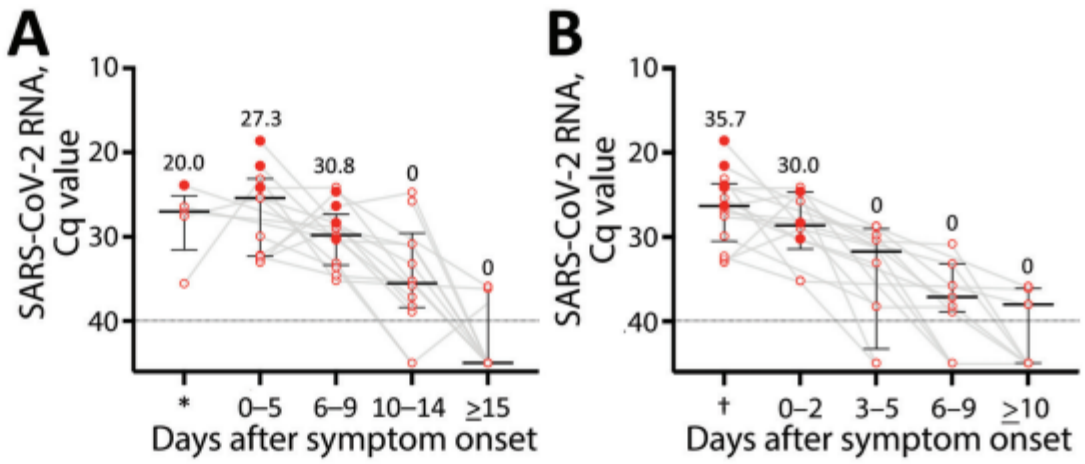


Figure 2. SARS-CoV-2 RNA level and infectious virus shedding in upper respiratory samples from symptomatic patients infected with the SARS-CoV-2 Omicron variant, Japan, November 29–December 18, 2021. A) SARS-CoV-2 RNA levels and presence of the infectious virus, by date of symptom onset. Each closed circle indicates case-patients from whom virus was isolated. Numbers above each plot indicate the proportion of case-patients from whom virus was isolated in each period. Black lines indicate median Cq values and error bars interquartile ranges; dotted lines indicate negative cutoff values. *Before symptom onset. B) SARS-CoV-2 RNA levels and presence of infectious virus, by date of symptom resolution. Closed circles indicate patients from whom virus was isolated. Numbers above each plot indicate the proportion of persons from whom virus was isolated in each period. Black lines indicate median Cq values and error bars interquartile ranges; dotted lines indicate cutoff values. †Before symptom resolution. Cq, quantification cycle; SARS-CoV-2, severe acute respiratory syndrome coronavirus 2.

Takahashi K, et al. Emerg Infect Dis 2022;28:998

UNC SCHOOL OF MEDICINE

Onset and window of SARS-CoV-2 infectiousness and temporal correlation with symptom onset: a prospective, longitudinal, community cohort study

Methods: UK prospective, longitudinal, community cohort of contacts of newly diagnosed, PCR-confirmed SARS-CoV-2 index cases. Household and non-household exposed contacts aged 5 years or older were eligible for recruitment. Tracked infectious viral shedding by enumerating cultivable virus daily across the course of infection. Participants completed a daily diary to track the emergence of symptoms.

Findings: Between Sept 13, 2020, and March 31, 2021, we enrolled 393 contacts from 327 households (the SARS-CoV-2 pre-alpha and alpha variant waves); and between May 24, 2021, and Oct 28, 2021, we enrolled 345 contacts from 215 households (the delta variant wave). The onset and end of infectious viral shedding were captured in 42 cases and the median duration of infectiousness was 5 (IQR 3–7) days. Notably, 22 (65%) of 34 cases and eight (24%) of 34 cases continued to shed infectious virus 5 days and 7 days post-symptom onset, respectively (survival probabilities 67% and 35%).

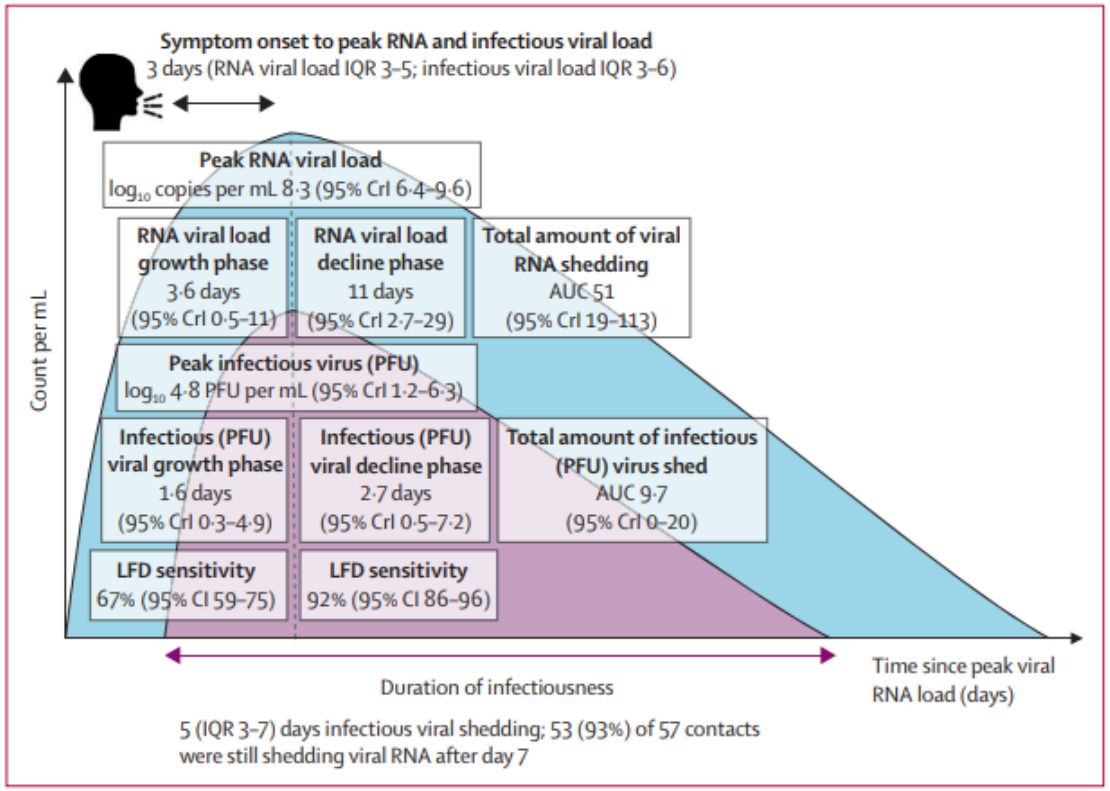
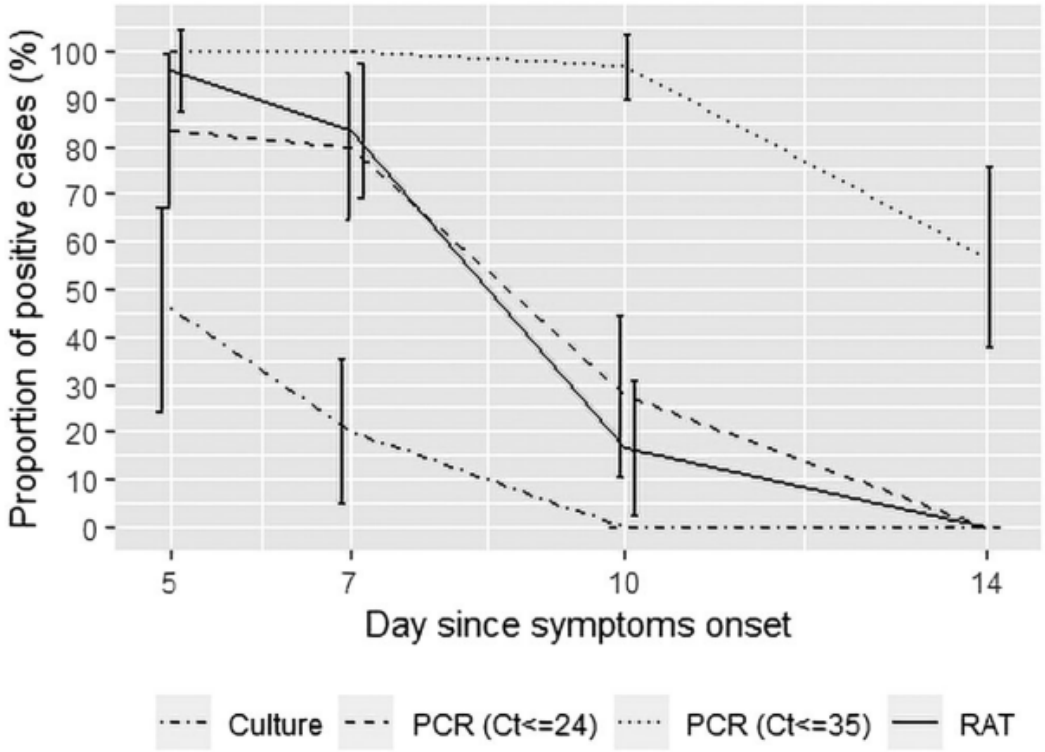


Figure 2: **Window and kinetics of SARS-CoV-2 infectiousness in recently infected contacts**

Hakki S, et al. Lancet Respir Med 2022;10:1061-73

Characterization of Severe SARS-CoV-2 Omicron Variant Shedding and Predictors of Viral Culture Positivity on Vaccinated Healthcare Workers With Mild Coronavirus Disease 2019

In this prospective cohort of 30 vaccinated healthcare workers with mild Omicron variant infection, we evaluated viral culture, rapid antigen test (RAT), and real-time reverse-transcription polymerase chain reaction (RT-PCR) of respiratory samples at days 5, 7, 10, and 14. Viral culture was positive in 46% (11/24) and 20% (6/30) of samples at days 5 and 7, respectively. RAT and RT-PCR (Ct ≤35) showed 100% negative predictive value (NPV), with positive predictive values (PPVs) of 32% and 17%, respectively, for predicting viral culture positivity. A lower RTPCR threshold (Ct ≤24) improved culture prediction (PPV = 39%; NPV =100%). Vaccinated persons with mild Omicron infection are potentially transmissible up to day 7. RAT and RT-PCR might be useful tools for shortening the isolation period

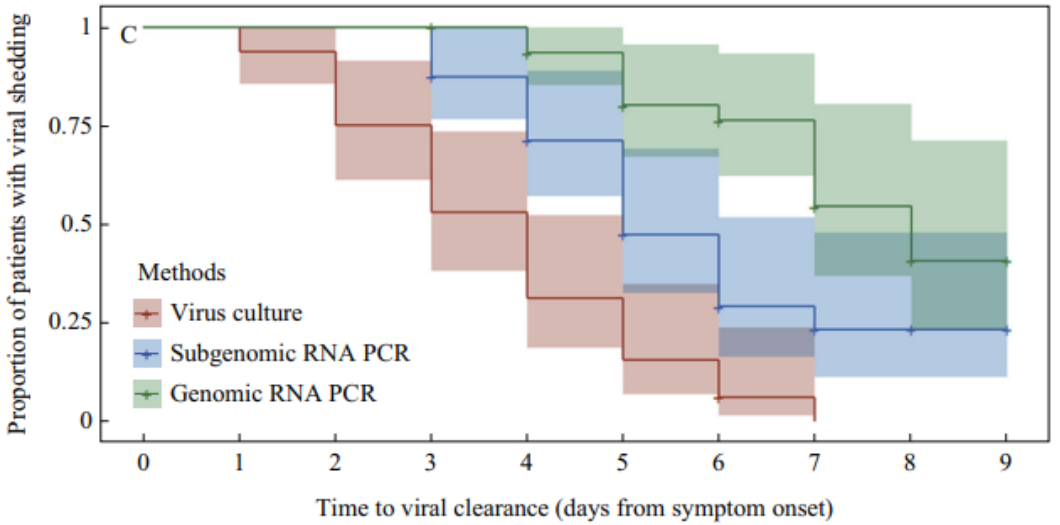


Luna-Muschi A, et al. J Infect Dis 2022;226:1726-1730

Risk of transmission of COVID-19 from healthcare workers returning to work after a 5-day isolation, and kinetics of shedding of viable SARS-CoV-2 variant B.1.1.529 (Omicron)

Methods: In a secondary transmission study, we retrospectively reviewed the data of HCWs confirmed as COVID-19 from March 14th to April 3rd, 2022 in units with five or more COVID-19-infected HCWs per week.

Findings: Of the 248 HCWs who were diagnosed with COVID-19 within 5 days of the return of an infected HCW, 18 (7%) had contact with the returned HCW within 1e5 days after their return. Of these, nine (4%) had an epidemiologic link other than with the returning HCW, and nine (4%) had contact with the returning HCW, without any other epidemiologic link. In the study of the kinetics of virus shedding (N=32), the median time from symptom onset to negative conversion of viable virus was four days (95% confidence interval: 3-5).
Conclusion: Our data suggest that the residual risk of virus transmission after 5 days of isolation following diagnosis or symptom onset is low.



Jung J, et al. J Hosp Infect 2023;131:228-233

Duration of infectious shedding of SARS-CoV-2 Omicron variant and its relation with symptoms

Methods: Methods: We prospectively included newly diagnosed nonsevere, symptomatic SARS-CoV-2 positive HCWs. Nasopharyngeal swab samples were obtained consecutively on days 5, 7,10, and 14 of onset of symptoms

Results: In total, 55 non-severe patients with SARS-CoV-2 Omicron variant were included. The mean age of the population was 34 years (range, 23 to 54) and 78% (43/55) were female. The PCR positivity rate on days 5, 7, 10, and 14 was 96.4% (53/55), 87.3% (48/55), 74.545% (41/55), and 41.8% (23/55) consecutively, whereas the viral culture positivity rates were 83% (44/53), 52% (26/50), 13.5% (7/52), and 8% (4/50). Among the patients who became symptom-free, the viral culture positivity rates were 100% (4/4), 58% (7/12), 11% (3/27), and 5% (2/41).

Discussion: Discussion: We showed that among the SARS-CoV-2 Omicron variant infected patients, viral shedding continues for >10 days in 13.5% of all cases and 11% in symptom-free cases.

Keske S, et al. Clin Microbiol and Infect 2023;29:221-224

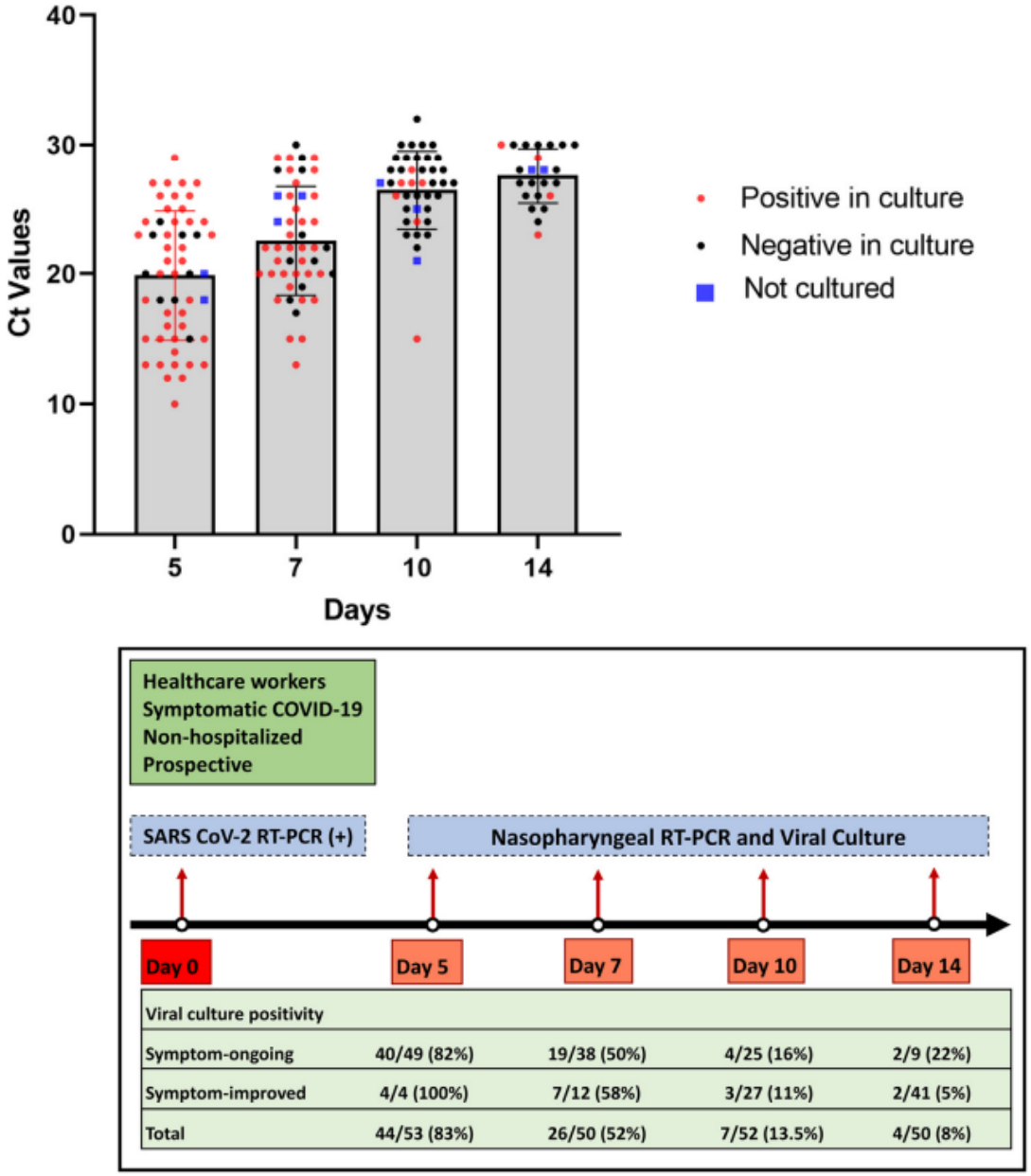


Fig. 2. SARS-CoV-2 culture positivity and its relationship with the presence of the symptom.

Duration of viable virus shedding and polymerase chain reaction positivity of the SARS-CoV-2 Omicron variant in the upper respiratory tract: a systematic review and meta-analysis

Objectives: To assess the duration of viable virus shedding and polymerase chain reaction (PCR) positivity of the SARS-CoV-2 Omicron variant in the upper respiratory tract.

Methods: We systematically searched PubMed, Cochrane, and Web of Science for original articles reporting the duration of viable virus shedding and PCR positivity of the SARS-CoV-2 Omicron variant in the upper respiratory tract from November 11, 2021 to December 11, 2022.

Results: We included 29 studies and 230,227 patients. The pooled duration of viable virus shedding of the SARS-CoV-2 Omicron variant in the upper respiratory tract was 5.16 days (95% CI: 4.18-6.14), and the average duration of PCR positivity was 10.82 days (95% CI: 10.23-11.42). The duration of viable virus shedding and PCR positivity of the SARS-CoV-2 Omicron variant in symptomatic patients was slightly higher than that in asymptomatic patients, but the difference was not significant (P >0.05).

Conclusion: The current study improves our understanding of the status of the literature on the duration of viable virus shedding and PCR positivity of Omicron in the upper respiratory tract. Our findings have implications for pandemic control strategies and infection control measures.

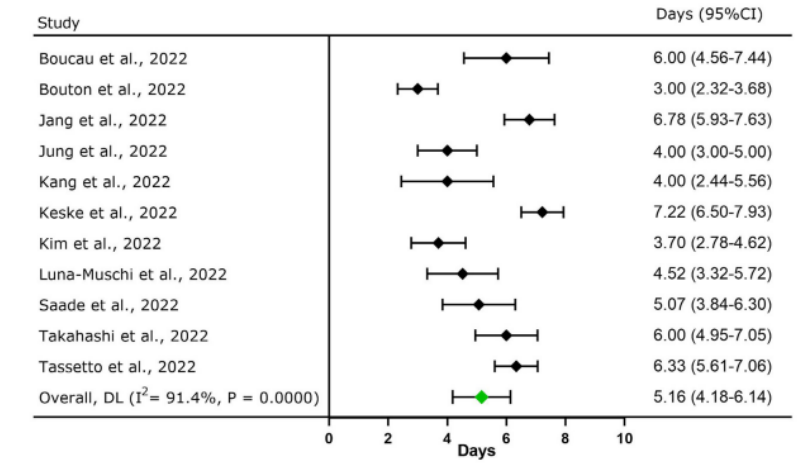


Figure 2. Forest plot for the meta-analysis of viable virus shedding duration of the SARS-CoV-2 Omicron variant in upper respiratory tract. CI, confidence interval; DL, DerSimonian and Laird method.

Duration of viable virus shedding and PCR positivity of the SARS-CoV-2 Omicron variant in patients with different characteristics.

Study	Outcome variable	Characteristics of patients	Sample Size	Mean duration (95% confidence interval)
Shen et al [27]	Duration of PCR positivity	Symptomatic	39	12.25 (10.99-13.51)
		Asymptomatic	37	9.95 (8.69-11.20)
Wang et al [31]	Duration of PCR positivity	Symptomatic	257	11.70 (11.26-12.14)
		Asymptomatic	119	11.70(11.00-12.40)
Takahashi et al [28]	Duration of viable virus shedding	Symptomatic	8	6.25(4.98-7.52)
		Asymptomatic	2	5.00(5.00-5.00)
Bouton et al [11]	Duration of viable virus shedding	Fully vaccinated by two doses	44	3.00(2.09-3.91)
		Vaccinated with a third booster dose	41	2.67(1.96-3.37)
Shen et al [27]	Duration of PCR positivity	Unvaccinated	12	13.05 (11.34-14.76)
		Fully vaccinated by two doses	36	10.46 (9.07-11.85)
		Vaccinated with a third booster dose	27	11.13 (9.48-12.79)
Zeng et al. [35]	Duration of PCR positivity	Full inactivated vaccination	355	17.00 (16.23-17.77)
		Full recombinant vaccination	14	21.53 (17.87-25.20)
		Partial vaccination	11	16.67 (8.65-24.69)
Ma et al. [22]	Duration of PCR positivity	Unvaccinated	3	11.05 (5.19-16.90)
		Vaccinated	11	11.67 (7.16-16.18)
Hua et al. [13]	Duration of PCR positivity	Unvaccinated	22	10.67 (9.01-12.32)
		Fully vaccinated	64	10.33 (9.78-10.89)
		Booster vaccination	139	11.00 (10.50-11.50)
Chen et al. [12]	Duration of PCR positivity	Fully vaccinated or booster	339	10.00 (9.52-10.48)
		Not fully vaccinated	268	14.33 (13.71-14.96)

PCR, polymerase chain reaction.

Wu Y, et al. International J Infect Dis 2023;129:228-235

CONCLUSIONS & COMMENTS

- CDC has revised its COVID-19 community viral respiratory guidance to align with RSV and influenza (i.e., stay home until afebrile for 24 hours off antipyretics and symptoms improved)
- CDC has NOT revised its healthcare COVID-19 management recommendations including the recommended duration of isolation.
- CDC has NOT revised its management recommendations for HCP with COVID-19, including duration of furlough.
- COVID-19 continues to cause substantial morbidity and mortality; despite decreases in deaths, COVID-19 caused more deaths in 2023 than car crashes (~44,000) or gun violence (~19,000 excluding suicide; total = ~36,000).
- Multiple studies of the duration of COVID-19 infectivity as demonstrated by positive viral cultures report a median of ~3-5 days but a substantial number of people are excreting viable virus up to 10 days (and occasionally longer).
  - Presence of symptoms in mild illness does not correlate with the quantity of viable virus being shed.
  - Asymptomatic persons may continue to shed viable virus for up to 10 days.
  - In general, most studies did NOT demonstrate that vaccinated persons shed for shorter periods of time.
  - Immunocompromised persons may shed for a longer duration.
- Revisions to isolation recommendations for patients and HCP with COVID-19 should ideally be based on risk of transmission by day from symptom onset (unclear what level of transmission one should use for policy)