



**National
Nurses
United**

The National Voice for Direct-Care RNs

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July 20, 2022

Dr. Rochelle P. Walensky, MD, MPH, Director
Centers for Disease Control and Prevention
1600 Clifton Rd.
Atlanta, GA 30329

Dear Dr. Walensky:

On behalf of National Nurses United, the largest labor union and professional association for registered nurses in the United States, I am writing to urge you to take immediate action to strengthen Covid-19 guidance to protect public health in the face of elevated transmission of the virus around the country, the rapid dominance of the extremely transmissible and immune evasive BA.5 variant, and the development of additional Omicron subvariants.

As nurses, NNU's members see the impact of lax public health measures on patients—in the form of more Covid-19 infections and hospitalizations as well as an increase in patients seeking care for the effects of long Covid. Now, as cases are once again rising and remaining at high levels across the country, and as we are contending with the BA.5 variant with increased transmissibility and immune evasion, and with more Omicron subvariants spreading around the world,¹ NNU's members are concerned for the health and safety of our patients, our colleagues, and our communities. Thus, NNU urges you to take immediate action to prevent transmission of this virus by:

1. Strengthening guidance and communications regarding Covid-19 transmission and when to implement mitigation measures, including wearing masks.
2. Strengthening post-exposure quarantine guidance to recognize the risk of reinfections with Omicron subvariants and future variants of concern in order to effectively prevent transmission of Covid-19.
3. Strengthening isolation guidance after testing positive for Covid-19 to better reflect the available data regarding infectious time periods.
4. More fully recognize the risks and impacts of long Covid and to conduct more effective public education regarding the risks of long Covid.

1. NNU urges the CDC to strengthen guidance and communications regarding Covid-19 transmission and when to implement mitigation measures, including wearing masks.

Wearing masks indoors in public is an effective and simple measure that many people could be taking to reduce transmission of this virus, in combination with other prevention measures

¹ World Health Organization, "Tracking SARS-CoV-2 variants: Omicron subvariants under monitoring," Updated July 13, 2022, Available at <https://www.who.int/activities/tracking-SARS-CoV-2-variants> (Accessed July 13, 2022).

including improving ventilation, getting tested, and quarantining and isolating. But on February 25, 2022, the CDC changed the metrics it uses to recommend when people should wear masks indoors in public. The new metric—the “community levels metric”²—recommends vaccination and getting tested if you have symptoms at all community levels, but only recommends wearing a mask indoors in public in the “high” community level. The community levels are determined based on new metrics that focus heavily on hospitalizations and intensive care unit admissions and that use a significantly higher case threshold before recommending wearing masks indoors in public compared to the CDC’s previous guidance (the “community transmission metric”).³ This change means that the CDC is now waiting for cases to skyrocket and hospitalizations to rise *before* recommending people take measures to protect themselves from infection.

NNU wrote to the CDC on March 1, 2022, to express our serious concerns regarding this new metric because it creates a dangerous lag time between widespread transmission of the virus and implementation of prevention measures.⁴ The CDC’s new community levels metric is also based on flawed assumptions that future variants will be mild and immunity will not wane over time; such assumptions have now been proven wrong with the emergence and rapid spread of Omicron subvariants BA.4 and BA.5 and others. For example, data from the United Kingdom indicate that booster vaccine effectiveness against Omicron hospitalization declined from 91 percent to 67 percent after 105 days among 18- to 64-year-olds.⁵ Another study found that Omicron subvariants BA.4 and BA.5 were four-fold more resistant to sera from vaccinated and boosted individuals compared to BA.2.⁶ Thus, NNU reiterates our concerns about the new community levels metric used by the CDC and urges the CDC to return to the four-tier “community transmission metric” used previously but now is used only in health care settings.

To underline the impact on communities across the country, we find it instructive to look at the new community levels metric and the community transmission metric side-by-side. For the new community levels metric, the criteria used to determine whether a community is in the high level—and thus wearing masks indoors in public is recommended—are significantly different than the previous CDC community transmission metrics, which recommended wearing masks indoors in public when a county was in “substantial” or “high” community transmission levels (see Table 1).

² U.S. Centers for Disease Control and Prevention (CDC), “COVID-19 by County,” Updated March 24, 2022, Available at <https://www.cdc.gov/coronavirus/2019-ncov/your-health/covid-by-county.html> (Accessed July 13, 2022).

³ U.S. CDC, “COVID Data Tracker” January 1, 2022, Accessed through the Internet Archive, <https://web.archive.org/> (Accessed July 13, 2022).

⁴ Castillo, B., “RE: New Covid-19 Community Levels Metric,” March 1, 2022, Available at https://www.nationalnursesunited.org/sites/default/files/nnu/documents/NNU_Comments_CDC_New_Covid_Community_Level_Metric_20220301.pdf (Accessed July 13, 2022).

⁵ U.K. Health Security Agency, “COVID-19 vaccine surveillance report: Week 12,” March 24, 2022, Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1063023/Vaccine-surveillance-report-week-12.pdf (Accessed July 13, 2022).

⁶ Wang, Q., Y. Guo, et al., “Antibody evasion by SARS-CoV-2 Omicron subvariants BA.2.12.1, BA.4, & BA.5,” *Nature*, July 5, 2022, <https://www.nature.com/articles/s41586-022-05053-w>.

Table 1: Comparing the CDC's Community Level Metric to the Community Transmission Metric	
The CDC currently recommends wearing a mask indoors in public if your county, in the past seven days, reports:⁷	Previously, the CDC recommended wearing a mask indoors in public if your county, in the past seven days, reports:⁸
200 or more new Covid-19 cases per 100,000 people	50 or more new cases per 100,000 people
New Covid-19 admissions are 20.0 or more per 100,000 people	8% or higher of positive NAATs tests
15.0% or more of staffed inpatient beds are occupied by Covid-19 patients	

As of July 20, 2022, more than 97 percent of U.S. counties have substantial or high Covid-19 transmission under the previously used community transmission metric, where wearing a mask indoors in public would be recommended if the CDC had not weakened its guidance in February 2022.⁹ However, under the current community levels metric, as of July 20, 2022, only 35 percent of U.S. counties are in the high Covid-19 level, where wearing a mask indoors in public is recommended.¹⁰

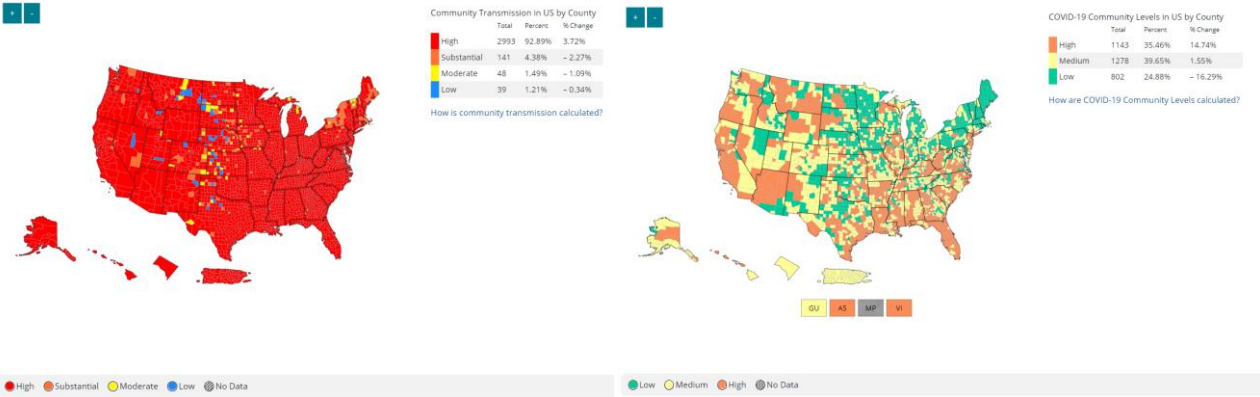


Figure 1: CDC Community Transmission Metric, July 12-18, 2022 for case rate, July 10-16 for percent positivity

Figure 2: CDC Community Levels Metric, July 7-13, 2022

It is clear that the CDC's new community levels metric waits until Covid-19 is seriously impacting a county through high levels of transmission and increased hospitalizations before recommending action to prevent transmission, thus abandoning critical windows to effectively prevent transmission. Waiting until hospitalizations are increasing before recommending universal

⁷ U.S. CDC, "COVID-19 by County," Updated March 24, 2022, Available at <https://www.cdc.gov/coronavirus/2019-ncov/your-health/covid-by-county.html> (Accessed July 13, 2022).

⁸ U.S. CDC, "COVID Data Tracker" January 1, 2022, Accessed through the Internet Archive, <https://web.archive.org/> (Accessed July 13, 2022).

⁹ U.S. CDC, "COVID Data Tracker: COVID-19 Integrated County View, Community Transmission," July 11-July 17, 2022, Available at https://covid.cdc.gov/covid-data-tracker/#county-view?list_select_state=all_states&list_select_county=all_counties&data-type=CommunityLevels&null=Risk (Accessed July 18, 2022).

¹⁰ U.S. CDC, "COVID Data Tracker: COVID-19 Integrated County View, COVID-19 Community Levels," July 7-13, 2022, Available at https://covid.cdc.gov/covid-data-tracker/#county-view?list_select_state=all_states&list_select_county=all_counties&data-type=CommunityLevels&null=CommunityLevels (Accessed July 20, 2022).

masking indoors in public means that the opportunity to prevent those hospitalizations was missed. This means that the new community levels metrics will prolong the pandemic, further exacerbating health inequities and the long-term impacts of Covid-19.

NNU reiterates the need for the CDC to strengthen its guidance on mitigation measures to the public, especially when to wear masks indoors in public. A return to using the community transmission metric, a more appropriate leading indicator to guide action to prevent transmission of Covid-19, would achieve this goal.

2. NNU urges the CDC to strengthen post-exposure quarantine guidance to recognize the risk of reinfections with Omicron subvariants and future variants of concern in order to effectively prevent transmission of Covid-19.

The CDC's current guidance for quarantining after an exposure to Covid-19 is insufficient to prevent transmission of Covid-19.¹¹ In instructing people who are up-to-date on Covid-19 vaccines¹² to not quarantine after a known exposure to Covid-19, the CDC is allowing transmission to happen. While data indicates that Covid-19 vaccines provide protection against severe illness and death,^{13,14} and NNU strongly encourages everyone who can to get vaccinated for Covid-19, it is important for the CDC to implement an approach that recommends taking multiple measures to effectively prevent transmission. Specifically, the CDC should update its guidance to recommend post-exposure quarantine for all individuals exposed to Covid-19, whether vaccinated, boosted, or not. This is necessary to prevent transmission because data indicates that people who are fully vaccinated and/or boosted can still become infected after an exposure and transmit the virus to others, vaccine effectiveness wanes over time, and new variants have developed increased immune evasion.

For example, one study found that fully vaccinated individuals with breakthrough infections had peak viral loads similar to unvaccinated individuals and transmitted Covid-19 to household contacts at a similar rate to unvaccinated individuals, including to fully vaccinated contacts.¹⁵ Data from the United Kingdom indicates that booster vaccine effectiveness against Omicron hospitalization declined from 91 percent to 67 percent after 105 days among 18- to 64-year-olds.¹⁶

¹¹ U.S. CDC, "Quarantine and Isolation," Updated March 30, 2022, Available at <https://www.cdc.gov/coronavirus/2019-ncov/your-health/quarantine-isolation.html> (Accessed July 13, 2022).

¹² Having received a primary series plus all boosters recommended for the individual. U.S. Centers for Disease Control and Prevention, "Stay Up to Date with Your COVID-19 Vaccines," Updated June 24, 2022, Available at <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/stay-up-to-date.html> (Accessed July 18, 2022).

¹³ Tenforde, M.W., W.H. Self, et al., "Effectiveness of mRNA Vaccination in Preventing COVID-19–Associated Invasive Mechanical Ventilation and Death — United States, March 2021–January 2022," MMWR, 71(12): 459–65, March 25, 2022, https://www.cdc.gov/mmwr/volumes/71/wr/mm7112e1.htm?s_cid=mm7112e1_w.

¹⁴ Tenforde, M.W., M.M. Patel, et al., "Effectiveness of a Third Dose of Pfizer-BioNTech and Moderna Vaccines in Preventing COVID-19 Hospitalization Among Immunocompetent and Immunocompromised Adults — United States, August–December 2021," MMWR, 71(4): 118–24, Jan 28, 2022, https://www.cdc.gov/mmwr/volumes/71/wr/mm7104a2.htm?s_cid=mm7104a2_w.

¹⁵ Singanayagam, A., Seran Hakki, et al., "Community transmission and viral load kinetics of the SARS-CoV-2 delta (B.1.617.2) variant in vaccinated and unvaccinated individuals in the UK: a prospective, longitudinal, cohort study," Lancet Infectious Diseases, Oct 29, 2021, [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(21\)00648-4/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(21)00648-4/fulltext).

¹⁶ U.K. Health Security Agency, "COVID-19 vaccine surveillance report: Week 12," March 24, 2022, Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1063023/Vaccine-surveillance-report-week-12.pdf (Accessed July 13, 2022).

Another study found that booster protection against hospitalization dropped to 78 percent within four months and that booster protection against emergency department and urgent care visits dropped to 66 percent within four months.¹⁷ The variants that are currently dominant in the United States, BA.4 and BA.5, both have substantial ability to escape neutralization induced by both vaccination and infection.^{18,19,20}

Similarly, the CDC directs people who have been infected with Covid-19 within the past 90 days to not quarantine if exposed to Covid-19 again. This guidance fails to account for updated data regarding the frequency of infection with subvariants of Omicron, which are showing significant capacity for immune evasion. For example, one study found a significant number of reinfections occurred at an interval of less than 60 days, with a mean interval between infections of 47 days, including among both vaccinated and unvaccinated individuals.²¹ A majority of individuals in this study received at least one negative PCR test result in between the two infections. Importantly, the study authors noted, “with a high reinfection rate due to a high genetic variability within the Omicron variant, one cannot generally assume reduced infectivity in reinfected individuals.”

This data underlines the importance of a multiple measures approach—getting vaccinated and boosted and ensuring effective post-exposure quarantine for vaccinated, boosted, and unvaccinated individuals, in addition to wearing masks in indoor public spaces, and other measures.

3. NNU urges the CDC to strengthen isolation guidance after testing positive for Covid-19 to better reflect the available data regarding infectious time periods.

The CDC’s guidance on isolation following a positive Covid-19 test is insufficient to prevent onward transmission of the virus. Currently, the CDC recommends that individuals who have tested positive for Covid-19 stay at home in isolation for five days and that they can end isolation after five days if they are fever-free and their other symptoms are improving or if they had no symptoms.²²

However, published data indicates that more than half of people infected with Covid-19, including the Omicron variant, continue to test positive for more than five days. One study found that over half of individuals infected with Omicron tested positive using antigen tests, which have been

¹⁷ Ferdinands, J.M., S. Rao, et al., “Waning 2-Dose and 3-Dose Effectiveness of mRNA Vaccines Against COVID-19–Associated Emergency Department and Urgent Care Encounters and Hospitalizations Among Adults During Periods of Delta and Omicron Variant Predominance — VISION Network, 10 States, August 2021–January 2022,” *MMWR*, 71(7): 255- 263, Feb 18, 2022, <https://www.cdc.gov/mmwr/volumes/71/wr/mm7107e2.htm>.

¹⁸ Hachmann, N.P., J. Miller, et al., “Neutralization Escape by SARS-CoV-2 Omicron Subvariants BA.2.12.1, BA.4, and BA.5,” *NEJM*, 387: 86-88, July 7, 2022, <https://www.nejm.org/doi/full/10.1056/NEJMc2206576>.

¹⁹ Arora, P., A. Kempf, et al., “Augmented neutralisation resistance of emerging omicron subvariants BA.2.12.1, BA.4, and BA.5,” *Lancet Infect Dis*, June 28, 2022, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9239574/>.

²⁰ Quandt, J., A. Muik, et al., “Omicron BA.1 breakthrough infection drives cross-variant neutralization and memory B cell formation against conserved epitopes,” *Science Immunology*, June 2, 2022, <https://www.science.org/doi/10.1126/sciimmunol.abq2427?cookieSet=1>.

²¹ Vera-Lise, I., E. Dominik, et al., “Rapid reinfections with different or same Omicron SARS-CoV-2 sub-variants,” *J of Infection*, July 7, 2022, [https://www.journalofinfection.com/article/S0163-4453\(22\)00412-1/fulltext](https://www.journalofinfection.com/article/S0163-4453(22)00412-1/fulltext).

²² U.S. CDC, “Quarantine and Isolation,” updated March 30, 2022, Available at <https://www.cdc.gov/coronavirus/2019-ncov/your-health/quarantine-isolation.html> (Accessed July 14, 2022).

correlated with detection of viable virus, five to nine days after symptom onset or diagnosis.²³ Another study found that vaccinated and boosted, vaccinated, and unvaccinated individuals infected with the Omicron variant remained culture-positive (and likely infectious) for a median of five days after initial positive PCR test, with an interquartile range of three to nine days.²⁴

Basing isolation guidance off the median or mean infectious timeframe means that approximately half of infected individuals will remain infectious after the end of the recommended isolation period. The CDC's current five-day isolation timeframe is based on the median/mean timeframe in the published literature, which means that approximately half of infected individuals will remain infectious but no longer be in isolation under the current guidance. Therefore, we urge the CDC to follow the science and return to an isolation guidance of ten days following a positive test or symptom onset.

4. NNU urges the CDC to more fully recognize the risks and impacts of long Covid and to conduct more effective public education regarding the risks of long Covid.

While the CDC's website shares some information about long Covid or post-Covid conditions,²⁵ the risks of long-term impacts of Covid-19 have not been effectively communicated to the public. The CDC's public communications regarding Covid-19 have been focused on preventing severe disease, hospitalizations, and deaths from Covid-19 through vaccination, which is an essential goal and NNU commends the Biden Administration's efforts to increase vaccination access and administration and encourages everyone who can to get vaccinated for Covid-19. However, the omission of long Covid as a serious health threat leaves the public harmfully uninformed.

The CDC's community level metric, by focusing on hospitalization rates and an extremely high case threshold before recommending action to prevent infections, i.e. wearing masks indoors in public, essentially communicates to the public that long Covid is not a significant outcome that needs to be prevented. But study after study indicates that long Covid poses a serious threat to public health, leading to neurodegeneration, cardiovascular disease, diabetes, and damage to other organ systems.^{26,27,28,29,30,31} The CDC estimates that nearly one in five American adults who have had

²³ Lefferts, B., I. Blake, et al., "Antigen Test Positivity After COVID-19 Isolation — Yukon-Kuskokwim Delta Region, Alaska, January–February 2022," *MMWR*, 71(8): 293-8, Feb 25, 2022, <https://www.cdc.gov/mmwr/volumes/71/wr/mm7108a3.htm>.

²⁴ Boucau, J., C. Marino, et al., "Duration of Shedding of Culturable Virus in SARS-CoV-2 Omicron (BA.1) Infection," *NEJM*, June 29, 2022, https://www.nejm.org/doi/full/10.1056/NEJMc2202092?query=featured_home.

²⁵ U.S. CDC, "Long COVID or Post-COVID Conditions," Updated July 11, 2022, Available at <https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects/index.html> (July 14, 2022).

²⁶ Douaud et al., "SARS-CoV-2 is associated with changes in brain structure in UK Biobank," *Nature*, March 7, 2022, <https://www.nature.com/articles/s41586-022-04569-5>

²⁷ Fernández-Castañeda et al., "Mild respiratory COVID can cause multi-lineage neural cell and myelin dysregulation" *Cell*, June 12, 2022, <https://doi.org/10.1016/j.cell.2022.06.008>

²⁸ Xie et al., "Long-term cardiovascular outcomes of COVID-19," *Nature Medicine*, February 7, 2022, <https://www.nature.com/articles/s41591-022-01689-3>

²⁹ Xie and Al-Aly, "Risks and burdens of incident diabetes in long COVID: a cohort study," *The Lancet Diabetes & Endocrinology*, March 21, 2022, [https://doi.org/10.1016/S2213-8587\(22\)00044-4](https://doi.org/10.1016/S2213-8587(22)00044-4)

³⁰ Barrett et al., "Risk for Newly Diagnosed Diabetes >30 Days After SARS-CoV-2 Infection Among Persons Aged <18 Years — United States, March 1, 2020–June 28, 2021," *MMWR*, January 14, 2022, <https://www.cdc.gov/mmwr/volumes/71/wr/mm7102e2.htm>

³¹ Natarajan et al., "Gastrointestinal symptoms and fecal shedding of SARS-CoV-2 RNA suggest prolonged gastrointestinal infection," *Med*, April 12, 2022, <https://doi.org/10.1016/j.medj.2022.04.001>

Covid-19 are experiencing long Covid,³² and the Government Accountability Office estimates that 7.7 to 23 million people in the United States are impacted by long Covid.³³ Long Covid disrupts patients' lives, requiring reduced work hours or stopping work altogether, disrupting childcare, exercise, and social activities.

The only way to effectively prevent long Covid is to prevent infections. Data indicates that reinfection poses an increased risk of long Covid. For example, data shared recently by a researcher studying long Covid indicates that each additional reinfection contributed a higher risk of sequelae six months after infection, as well as all-cause mortality, hospitalization, and adverse outcomes for multiple organ systems at six months after reinfection.³⁴ With reinfections happening more and more often,³⁵ the long-term impacts of reinfections must be considered when crafting public health guidance. Additionally, recent data indicates that Covid-19 vaccines do not effectively reduce the risk of long Covid. For example, a study of more than 13 million U.S. veterans found that a Covid-19 vaccination prior to infection reduced the risk of long Covid by only 15 percent.³⁶ A multiple measures approach is necessary to protect the public's health from Covid-19, including the threat of long Covid—including getting vaccinated and boosted, improving ventilation, wearing masks indoors in public, getting tested, effective quarantine and isolation timeframes, and more.

NNU urges the CDC to communicate more clearly the risk of long Covid and the importance of preventing any infection, in addition to preventing severe disease and deaths related to Covid-19. Failing to educate the public about the risks of infections, reinfections, and long Covid leaves the public dangerously uninformed about the risks to their health and the health of their communities. Returning to the community transmission metric, which uses a lower case threshold when recommending wearing masks indoors in public, is an important way for the CDC to communicate to the public the importance of taking steps to prevent infections before they happen, and thus reduce the risk of long Covid. Continuing to use the community levels metric, which is determined using data on hospitalizations and hospital capacity that do not reflect real-time transmission but transmission events that occurred two or more weeks prior, denies the risks of long Covid and endangers the public's health.

In Conclusion

We urge the CDC to immediately strengthen its Covid-19 guidance, based on the available scientific evidence and the precautionary principle, to more effectively stop transmission of Covid-19 in

³² U.S. CDC, "Nearly One in Five American Adults Who Have Had COVID-19 Still Have "Long COVID"," June 22, 2022, Available at https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2022/20220622.htm (Accessed July 18, 2022).

³³ Government Accountability Office, "Science & Tech Spotlight: Long COVID," March 2, 2022, Available at <https://www.gao.gov/products/gao-22-105666> (Accessed July 18, 2022).

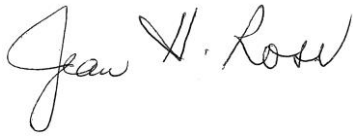
³⁴ Al-Aly, Z., B. Bowe, and Y. Xie, "Outcomes of SARS-CoV-2 Reinfection," pre-print, Research Square, June 17, 2022, <https://assets.researchsquare.com/files/rs-1749502/v1/499445df-ebaf-4ab3-b30f-3028dff81fca.pdf?c=1655499468> (Accessed July 14, 2022).

³⁵ The U.S. CDC does not effectively track reinfection data. Data from the U.K. indicate that approximately 25 percent of daily cases are possible reinfections. UK Health Security Agency, "Coronavirus (COVID-19) in the UK, Cases in England," Updated July 13, 2022, Available at <https://coronavirus.data.gov.uk/details/cases?areaType=nation&areaName=England> (Accessed July 18, 2022).

³⁶ Al-Aly, Z., B. Bowe, and Y. Xie, "Long COVID after breakthrough SARS-CoV-2 infection," nature medicine, May 25, 2022, <https://www.nature.com/articles/s41591-022-01840-0>.

order to protect the public's health. Please do not hesitate to reach out to Ken Zinn at kzinn@nationalnursesunited.org with questions and follow-up.

Sincerely,

A handwritten signature in cursive script that reads "Jean H. Ross". The signature is written in black ink and is positioned to the right of the word "Sincerely,".

Jean Ross
President, National Nurses United