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9/01/2025

Dr. Tedros Adhanom Ghebreyesus, Director-General
World Health Organization
Avenue Appia 20
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Dear Dr. Tedros:

The novel coronavirus, SARS-CoV-2/Covid-19, continues to circulate at high levels in countries around the world, reaching a devastating milestone of more than seven million preventable Covid-19 deaths globally.¹ Other infectious diseases like measles,² tuberculosis,³ and polio⁴ are making a global resurgence, and with future infectious disease outbreaks increasingly likely, it is abundantly clear that robust infection prevention and control practices are necessary to protect the health care workforce globally from infectious diseases.

Nurses and other health care workers care for patients with Covid-19 and other infectious diseases in hospitals, clinics, and other health care facilities around the globe. Workplace exposures and inadequate protections mean nurses and other health care workers remain at high risk of infection, morbidity and mortality, and long-term health effects. Global Nurses United (GNU), an international federation that unites nurse and health care worker unions in more than 30 countries, advocates for optimal standards to protect nurses, other health care workers, and patients in health care settings around the world. **We write to you today urging the World Health Organization (WHO) to update and strengthen infection prevention and control guidance for pathogens that transmit through the air to reflect the updated science, based on the WHO's**

¹ World Health Organization, WHO COVID-19 Dashboard, last updated October 6, 2024, <https://data.who.int/dashboards/covid19/deaths?n=c>

² U.S. Centers for Disease Control and Prevention, Global Measles Vaccination: *Global Measles Outbreaks*, last updated October 2024, <https://www.cdc.gov/global-measles-vaccination/data-research/global-measles-outbreaks/index.html>

³ World Health Organization, "Global tuberculosis report 2023," November 7, 2023, <https://www.who.int/publications/i/item/9789240083851> (Accessed October 22, 2024).

⁴ World Health Organization, "Statement of the Thirty-ninth Meeting of the Polio IHR Emergency Committee," August 13, 2024, <https://www.who.int/news/item/13-08-2024-statement-of-the-thirty-ninth-meeting-of-the-polio-ih-er-emergency-committee> (Accessed October 22, 2024).

new global technical consultation report released on April 18, 2024, that proposes new terminology for pathogens that transmit through the air.⁵

The WHO's new terminology represents significant progress in recognizing the science on aerosol transmission of infectious diseases and, importantly, finally leaves behind the faulty, disproven droplet-airborne dichotomy. Specifically, the WHO report proposes a new descriptor, "through the air," to characterize an infectious disease where the main mode of transmission involves the pathogen traveling through or being suspended in the air—similar to the use of the terms waterborne and bloodborne to describe general transmission modes for infectious diseases. Under this new umbrella term, there are two descriptors:

- Airborne transmission/inhalation transmission occurs when infectious respiratory particles—which are generated by an infected individual when they breathe, speak, sing, cough, sneeze, etc.—enter the respiratory tract of another person and cause infection, regardless of the size of the particles or distance travelled.
- Direct deposition describes when infectious particles are deposited directly on the exposed facial mucosal surfaces (i.e., eyes, nose, mouth) of another person and then cause infection, again regardless of particle size.

These terms explicitly move away from the previous size-based paradigm (droplet-airborne), which is an essential step forward in recognizing the most up-to-date scientific research on infectious disease transmission.

The WHO global technical consultation report better recognizes the scientific research that has found that respiratory particles are emitted in a wide range of sizes and can remain suspended in and travel through the air for long times and distances, making inhalation a risk at both near and far distances from an infectious individual. The WHO report also provides better recognition of the multitude of factors that can influence transmission through the air, such as temperature, humidity, time, dose/concentration, and ventilation or removal rate.

Recognition of the updated science is an essential first step. Fully recognizing this science on how infectious diseases are transmitted is fundamental to crafting measures that effectively protect health care workers, patients, and the public. But the WHO global technical consultation report stops short of translating how the new terminology should shape protective measures, such as what types of personal protective equipment (PPE) are used by health care workers caring for patients infected with pathogens that transmit through the air.

⁵ World Health Organization, "Global technical consultation report on proposed terminology for pathogens that transmit through the air," April 18, 2024, <https://www.who.int/publications/m/item/global-technical-consultation-report-on-proposed-terminology-for-pathogens-that-transmit-through-the-air> (Accessed April 25, 2024).

Recognition of the updated science means that infection prevention and control guidance for a broad range of pathogens must be updated to address and emphasize measures that protect health care workers from exposure to pathogens that transmit through the air, including:

- Proactive screening of patients to identify infectious and potentially infectious cases;
- Prompt isolation of infectious and potentially infectious patients to contain aerosolized virus in a separate airspace and prevent exposure to others present in the health care facility;
- Provision of ventilation and air filtration to reduce infectious aerosols in shared airspaces, including patient care areas, nurses stations, and waiting rooms;
- Optimal PPE for health care workers caring for infectious and potentially infectious patients, including
 - Expanded use of respiratory protection for health care workers who are exposed to infectious aerosols—based on an exposure assessment that recognizes inhalation transmission, not solely based on a one-meter distance, and
 - Recognition that surgical masks do not effectively protect against inhalation of infectious particles and cannot be treated interchangeably with respirators;
- Contact tracing, exposure notification, and paid sick leave.

A multilayered approach to infection control, where no one measure is sufficient to reduce risk but a combination of measures is more protective, is essential.

To fully recognize the science on transmission through the air, WHO's current guidance needs to be strengthened. For example, WHO's current Covid-19 infection prevention and control guidance, last updated in December 2023, delineates a distance of one meter as a level of protection, including recommending that health care workers wear PPE only within one meter of an infectious patient, which is insufficient. The guidance also treats surgical masks and respirators as interchangeable, which ignores science clearly showing that respirators are needed to protect health care workers from pathogens that spread through the air. **GNU urges WHO to immediately update and strengthen infection prevention and control guidance to reflect the up-to-date science recognized by WHO in its technical consultation report that proposes new terminology for pathogens that transmit through the air.**

Nurses and other health care workers continue to be exposed to infectious diseases in their workplaces due to inadequate protections provided by their employers. These exposures place nurses and other health care workers at risk of infection, severe illness,

death, and, increasingly, long-term negative health impacts of illnesses, like, for example, long Covid. It is estimated that between 10 and 51 percent of Covid survivors develop long-term health impacts of Covid,⁶ including people who had a mild or asymptomatic initial infection.⁷ The risk of long Covid, and of organ and tissue damage, increases with each subsequent infection.⁸ Other infectious diseases also carry risks of long-term harm—for example, measles can cause immune amnesia,⁹ influenza-like illness is associated with increased risk of stroke, particularly for people under age 45,¹⁰ and multiple viruses are associated with neurodegenerative disease risk such as Alzheimer’s disease and multiple sclerosis.¹¹ Workers have a fundamental right to a safe and healthy workplace. Ignoring the science on transmission through the air/inhalation transmission results in inadequate recommendations on infection prevention and control in health care settings.

We, the undersigned affiliated unions of Global Nurses United, call upon you to strengthen WHO’s guidance on infection prevention and control to provide clear and explicit recommendations for health care employers to prevent transmission of infectious diseases through the air; thus, protecting the nurses and other health care workers who remain at the heart of patient care and essential to public health response to global infectious disease outbreaks.

If you have questions regarding this letter or would like to arrange a meeting, please do not hesitate to contact Amirah Sequeira by phone (+1-240-447-0034) or email (ASequeira@nationalnursesunited.org). We look forward to your response.

Sincerely,

George Tsolas, President

Pan-Hellenic Federation of Nursing stuff (Pa.S.O.No.P)
Greece

⁶ European Centre for Disease Prevention and Control. Prevalence of post COVID-19 condition symptoms: A systematic review and meta-analysis of cohort study data stratified by recruitment setting. 27 October 2022. ECDC: Stockholm; 2022.

⁷ Xu, E., Xie, Y. & Al-Aly, Z. Long-term neurologic outcomes of COVID-19. *Nat Med* 28, 2406–2415 (2022). <https://doi.org/10.1038/s41591-022-02001-z>

⁸ Bowe, B., Xie, Y. & Al-Aly, Z. Acute and postacute sequelae associated with SARS-CoV-2 reinfection. *Nat Med* 28, 2398–2405 (2022). <https://doi.org/10.1038/s41591-022-02051-3>

⁹ Mina, M., Kula, T. et al. Measles virus infection diminishes preexisting antibodies that offer protection from other pathogens. *Science* 366 (6465), 599-606 (2019).

¹⁰ Boehme, A.K., Luna, J., et al. Influenza-like illness as a trigger for ischemic stroke. *Ann Clin Transl Neurol* 5(4), 456-63 (2018).

¹¹ Levine, K.S., Leonard, H.L. Virus exposure and neurodegenerative disease risk across national biobanks. *Neuron* 111(7), 1086-93 (2023).

