

The WHO updates its terminology for pathogens that transmit through the air

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More than four years into the COVID pandemic, on April 18, 2024, the World Health Organization (WHO) updated their terminology on airborne transmissions of pathogens in a way that finally aligns it with the evidence that had been presented to the UN health agency by scientists, including aerosol physicists, at the beginning of the global outbreak. The report acknowledges that the virus that is causing COVID is, indeed, airborne. Other airborne pathogens listed include influenza, MERS, SARS and tuberculosis, among others.

Notably, it was on December 23, 2021, during the initial surge of the Omicron variant, when the WHO, after repeated denunciations of the airborne mode of transmission was forced to accept this simple premise. At the time, there had been 5.4 million confirmed deaths and over 17 million excess deaths.

Quietly, they updated their guidance, writing, “Current evidence suggests that the virus spreads mainly between people who are in close contact with each other, for example at conversational distance ... the virus can also spread in poorly ventilated and/or crowded indoor settings, where people tend to spend longer periods of time. This is because aerosols can remain suspended in the air or travel farther than conversational distance (this is often called long-range aerosol or long-range airborne transmission.)”

The new consensus was reached after the WHO consulted with multiple agencies and several hundred experts from a broad range of fields across a span of two years, and vetted by the CDCs of Africa, China, Europe, and the United States. Not surprisingly, much about the global technical consultation report “on proposed terminology for pathogens that transmit through the air” falls short of what is required from such a document.

Foremost, the new nomenclature, “through the air transmission,” which has been substituted for the straightforward and commonly used term “airborne,” seem intentionally laborious and clumsy, and, in the final analysis, muddles what is a simple concept in a way that will only sow further confusion and effectively forestall or prevent

implementing the necessary public health measures to make indoor spaces safe from pathogens.

As the report explicitly noted, “[The] process aimed to be a starting point for what is anticipated to be difficult and complicated discussions on a topic with enormous complexity, which would form the basis for common language across disciplines. *However, it would likely require further work in order to operationalize and implement within pathogen-, discipline- and setting-specific contexts.*” [Emphasis added]

This gets at the crux of the problem of the definition of airborne and goes a long way to explaining the WHO’s persistent refusal, well into the COVID pandemic, to acknowledge the mode of transmission of SARS-CoV-2 as the implication would have been profound.

By way of an example, the recent attempts by the federal advisory committee, HICPAC, which is dominated by the hospital industry, to weaken infection control protections in healthcare as cost saving measures, are only strengthened by such caveats, which will have an impact on how airborne precautions are implemented in other aspects of society. As Dr. Jose-Luis Jimenez, professor of chemistry at the University of Colorado-Boulder, recently noted on social media, “Medical infection prevention and control still DOES NOT want airborne protections used more widely. And they want the POWER over WHEN they should be used (as @microlabdoc points out).”

However, if it is acknowledged that the airborne transmission is the dominant mode by which respiratory pathogens infect people, then appropriate equipment and infrastructure are needed to prevent the transmission of respiratory pathogens anywhere. These become urgent social priorities.

A study published in *The Lancet* last year found that children who developed lower respiratory infections before the age of two were twice as likely to die prematurely from respiratory diseases. The findings persisted even after they adjusted for socioeconomic factors and adult habits, such as smoking. Chronic respiratory diseases account for nearly 4

million deaths annually, 7 percent of the global figure.

As the lead author, Dr. James Allinson from the National Heart & Lung Institute at Imperial College London said, “Current preventative measures for adult respiratory disease mainly focus on adult lifestyle risk factors such as smoking. Linking one in five adult respiratory deaths to common infection many decades earlier in childhood shows the need to target risk well before adulthood.”

In other words, it is not just preventing pandemics and epidemics. Eradicating all respiratory infections becomes a primary goal for public health. Failing to “operationalize and implement” broad airborne precautions as a public concern of international scope represents public health negligence of a criminal character.

Perhaps one positive aspect of the consensus report is that it did away with the previous construct that only particles five microns or less can become airborne and all larger particles are therefore transmitted through “droplet transmission,” and would fall to the ground under gravitational force within one or two meters. This was the basic erroneous dogma that had been in place for more than a century as Dr. Jose-Luis Jimenez explained in July 2021 in an interview with the *World Socialist Web Site*.

The WHO declares that “infectious respiratory particles [IRPs]” that travel “through the air” are of any size across any distance. They also acknowledge that IRPs can be released not just through coughs or sneezes, but through talking and exhaling. Under the mode of transmission labeled “through the air,” these are further subcategorized as “Airborne transmission/inhalation” and “direct deposition,” which is the new term for droplet transmission.

More than just awkward usage, presenting the two terms as subcategories of a larger unit, instead of making them separate modes of transmission only perpetuates the misleading characterization of how COVID is transmitted. Direct deposition has not been the dominant route of sustained human-to-human transmission of COVID, characterized by superspreading events and the mass infection of hundreds of millions of people each year.

It has taken two years and 52 pages to acknowledge the airborne nature of COVID-19. Moreover, the document fails to promulgate any guidance on what needs to be done to protect populations from pathogens that transmit “through the air.” Anticipating the political difficulties the WHO would face in acknowledging the airborne nature of respiratory pathogens, they concluded their executive summary with a backhanded apology for their oversight on issuing any guidance.

They said, “This consultation is the first phase of the global scientific debate led by WHO. From which the next steps will require further technical and multidisciplinary

research and exploration of the wider implications of the updated descriptors before any update on infection prevention and control or other mitigation measures guidance is issued by WHO.”

The implication of this admission by the WHO, even as COVID continues to mutate and infect millions of people across the world, means that despite having accepted the airborne nature of SARS-CoV-2, they will not issue any guidance to prevent and mitigate the spread of this disease or any other respiratory pathogens present and future.

Clearly, the inability by member states to agree on the text of the “first-ever” global pandemic accord, being voted on at the end of May at this year’s World Health Assembly, means that the world is even less prepared to address future global outbreaks than on the eve of the COVID pandemic. This includes equitable sharing of technical information on therapeutics and vaccines and their distribution to populations.

Speaking with *Human Rights Watch*, the legal adviser at Amnesty International, Tamaryn Nelson, said, “Creating a new pandemic treaty could offer an opportunity to ensure that countries are equipped with proper mechanisms for cooperation and principles to prevent the level of devastation wrought by the COVID-19 pandemic, and the rights violations resulting from government responses. By failing to ground the treaty in existing human rights obligation and inadequately addressing human rights concerns arising during public health emergencies, governments risk repeating history when the next global health crisis hits.”

The former chief scientist at the WHO, Dr. Soumya Swaminathan, an Indian pediatrician, who left her position in mid-November 2022 after a series of high-profile departures, has not fully explained why she resigned. But in an interview with *Science Insider* she expressed regrets over the UN agency’s handling of the COVID pandemic.

She said, “We should have done it much earlier, based on the available evidence, and it is something that has cost the organization. You can argue that [the criticism of WHO] is unfair, because when it comes to mitigation, we did talk about methods, including ventilation and masking. But at the same time, we were not forcefully saying, ‘This is an airborne virus.’ I regret that we didn’t do this much, much earlier.”



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