

# At last, health, aged care and quarantine workers get the right masks to protect against airborne coronavirus

June 17 2021, by C Raina MacIntyre, Benjamin Veness and Michelle Ananda-Rajah

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Almost a year ago, in July 2020, [our calls](#) for the government to urgently

upgrade the guidelines to protect health workers from airborne SARS-CoV-2 fell on deaf ears.

The existing guidelines said [health providers](#) working around COVID-19 patients should wear a surgical mask. It restricted use of the more protective [P2 or N95 masks](#), which stop airborne particles getting through, to very limited scenarios. These involved "aerosol-generating procedures," such as inserting a breathing tube. This was expanded slightly in August 2020 but still left most health workers without access to P2/N95 masks.

[More than 4,000](#) Australian health workers were infected by COVID-19 during the Victorian second wave. Health authorities denied the importance of airborne transmission and [blamed](#) clinical staff for "poor habits" and "apathy." Health workers [expressed despair and a sense of abandonment](#), cataloging the opposition they faced to get adequate protection against COVID-19.

Last week, 15 months after the COVID-19 pandemic was declared, the [Australian guidelines](#) on personal protective equipment (PPE) for health workers, including masks, were finally revised.

## **What do the new guidelines say?**

The new guidelines expand the range of situations in which P2/N95 masks should be available to staff—essentially anywhere where COVID-19-infected people are expected to be—and remove all references to "aerosol-generating procedures."

This recognizes that breathing, speaking, sneezing and coughing all generate aerosols which can accumulate in indoor spaces, posing a [higher risk](#) than "aerosol-generating procedures."

"Fit testing" is an [annual procedure](#) that should be done for all workers wearing a P2/N95 mask or higher grade respirator, to ensure air can't leak around the edges.

But this was [previously denied to many](#) Australian health workers.

The new guidelines unequivocally state fit-tested P2/N95 masks are required for all staff managing patients with suspected or confirmed COVID-19. This means [health workers](#) can finally receive [similar levels of respiratory protection](#) to workers on mining and construction sites.

The new guidelines leave ambiguity around which workplaces are within the scope by stating that health care: "may include hospitals, non-inpatient settings, managed quarantine, [residential care facilities](#), COVID-19 testing clinics, in-[home care](#) and other environments where clinical care is provided."

The guidelines also allow employers to decide what comprises a high risk and what doesn't, allowing more wiggle room to deny workers a P2/N95 mask.

The guidelines say when a suitable P2/N95 mask can't be used, a re-usable respirator (powered air purifying respirators, or PAPRs) should be considered.

But the guideline's claim that a PAPR may not provide any additional protection compared to a "well-sealed" disposable P2/N95 mask, is not accurate. In fact, re-usable respirators such as PAPRs afford a [higher level of protection](#) than disposable N95 [masks](#).

The new guidelines should also apply to workers in hotel quarantine—both health care and non-clinical staff. This will help strengthen our biosecurity, as long as they're interpreted in the most

precautionary way.

That means not using the wiggle room that allows workplaces to deem a situation lower risk than it actually is or that their workplace is exempt. When working around a suspected or confirmed COVID-19 case, *all* workers must be provided with a fit-tested P2/N95 mask. Otherwise they are not protected from inhaling SARS-CoV-2 from the air.

In aged care and [health](#) care, where cases linked to quarantine breaches can be amplified and re-seeded to the community, the new guidelines go some way towards better protecting our essential first responders and their patients.

## Guidelines miss the mark on ventilation

The guidelines fail to explicitly acknowledge COVID-19 spreads through air but nonetheless recommend the use of airborne precautions for staff.

Airborne particles are [usually less than 100 microns](#) in diameter and can accumulate indoors, which means they're an inhalation risk.

The old guidelines focused on "large droplets," which were thought to fall quickly to the ground and didn't pose a risk in breathed air. This was based on [debunked theories](#) about airborne versus droplet transmission.

The [new guidelines](#) fail to comprehensively address ventilation, which is only mentioned in passing with a reference to separate guidelines for [health-care facilities](#). This may not cover aged care or hotel quarantine.

We must ensure institutions such as hospitals, hotel quarantine facilities, residential care, schools, businesses and [public transport](#) have plans to mitigate the airborne risk of COVID-19 and other pandemic viruses

through improved ventilation and air filtration.

Australia could follow [Germany](#), which has invested €500 million (A\$787 million) in improving ventilation in indoor spaces.

Meanwhile, Belgium is [mandating the use of carbon dioxide monitors](#) in public spaces such as restaurants and gyms so customers can assess whether the ventilation is adequate.

Cleaning shared air would add an additional layer of protection beyond vaccination and mask-wearing. [Secondary benefits](#) include decreased transmission of other respiratory viruses and [improved productivity](#) due to higher attention and concentration levels.

## **No updated advice on hand-washing**

The United States Centers for Disease Control and Prevention (CDC) [now acknowledges](#) exposure to SARS-CoV-2 occurs through "very fine respiratory droplets and aerosol particles" and states the [risk of transmission](#) through touching surfaces is "low."

Yet this is not acknowledged in the latest Australian [health-care guidelines](#).

Australians have been repeatedly reminded to wash or sanitize their hands, wipe down surfaces and stand behind near-useless [plexiglass barriers](#).

The promotion of hand hygiene and cleaning surfaces is [not based on science](#), which shows it is the air we breathe that matters most.

Revised public messaging is needed for Australians to understand shared air is the most important risk for COVID-19.

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