

Returning to school in a COVID-safe way Webinar

4 November 2021

Responses from NSW Department of Education to questions raised at the webinar but not answered

Ventilation questions

Once vaccinations are approved younger students, what plans do you have to monitor vaccination of students in this cohort? Are you prioritising air filtration for primary schools where children remain unvaccinated?

Are all students being afforded the quality environment for learning as students with additional needs?

Given NSW Health statistics regarding transmission, is the maximum amount of protection being provided?

The department does not monitor vaccination rates of children.

Vaccination data is reported by NSW and Australian Health Departments; data breaks down age of populations vaccinated and cumulative totals on dose number 1, 2 or 3. Among other reports available is [the COVID Vaccine Monitor: Summary](#) and the [Geographical Vaccination Rates](#).

From an Infection Control perspective, the ventilation and air quality remains important and not specific to vaccination status.

Maximising natural ventilation in learning spaces is the most effective method for minimising the spread of COVID-19. This can be best achieved by opening doors and windows.

The department's ventilation and asset use recommendations are informed by:

- NSW Health advice
- Research from the Doherty Institute
- Guidelines from the World Health Organisation (WHO)
- Independent peer reviewed expert advice from building services consultants Steensen Varming.

The approach to ventilation in NSW is nation leading. No other jurisdiction has the in depth knowledge of the ventilation status of their schools, including individual data for each learning space such as the number of students that can safely be accommodated at any one time.

The department understands air quality is a key factor in the comfort of a learning space, however ventilation is only one part of the return to school plan. There is a comprehensive range of measures in place, including vaccinations, use of masks, outdoor teaching, additional hygiene supplies, continuation of enhanced cleaning and servicing and cleaning of air conditioning systems. NSW Health and the department also continue to emphasise the importance of early identification and

screening, for example, keeping children and staff at home if sick; hygiene practices for all students, cough etiquette and respiratory hygiene.

The Doherty Institute has reinforced this layered approach to ensuring schools are safe, and that vaccinations, masks and not mixing student cohorts as primary interventions.

Independent advice confirms that using fresh air to ventilate our schools is preferable over any other filtration system and that our buildings, along with sensible operating measures have sufficient natural ventilation. This advice, along with findings from the comprehensive asset review and NSW Health's advice, has informed the return to school plan, including ventilation and asset use recommendations.

An additional \$100 million as part of the economic recovery program has provided the department with the opportunity to deliver ongoing, permanent improvements to air quality in public schools.

Do air conditioning systems contribute to airflow or do they recycle the air?

Air conditioning systems may be used as normal. Windows will need to remain open to ensure sufficient natural ventilation, as ceiling fans and some air conditioners do not introduce any fresh air into the space.

In schools with windows that cannot be opened in order to mitigate noise, pollution etc., the air conditioning systems have been set to run 24/7 with maximum fresh air settings to support maximum ventilation. Filters have been replaced and the frequency of filter servicing and cleaning has been increased to occur on a monthly basis.

If there is 10L/s/p of fresh air, how can we tell it is being well mixed? Can you calculate an equivalent air changes per hour?

Building services consultants Steensen Varming provided the department with [independent expert advice on air quality in schools \(PDF 6.71 MB\)](#). Their report, which has also been peer reviewed, provides specific advice around the effectiveness of natural ventilation to achieve internal air quality, in line with international health recommendations for COVID-19. In particular, the number of air changes and external opening areas required to meet the recommendations.

Air Changes per Hour (ACH) can be calculated by adding the total amount of "clean" air entering the room and dividing it by the room volume. For a typical classroom this equates to approximately 6 ACH of fresh air.

Are all schools built to NCC, given this is the basis for the modelling?

All schools built or expanded since 1988 are constructed to the NCC. Schools built prior to 1988 have been inspected and confirmed to exceed the NCC.

In addition, our ventilation strategy has been customised for each individual school.

Asset Services Officers provided advice to schools on how to maximise natural ventilation in each classroom. If there is a space where the number of students in a classroom exceeds the conservative indicative occupancy, the Asset Services Officer worked with the Principal to implement additional solutions to maximise natural air ventilation.

What is the tipping point as to when the classroom door can be closed?

The department is working with School Principals to discuss their individual ventilation audit report against the day-to-day use of their facilities and local conditions. We have provided advice to schools on how to maximise natural ventilation in each classroom and consider additional strategies to enable the continued safe use of their facilities.

Can we know real time ventilation rates and mask wearing rates?**Does the CO2 trial include monitoring temperature data in classrooms?**

The department's return to school strategy is part of layered approach that includes vaccines, on-site restrictions, mask-wearing, cleaning and ventilation.

All students in Year 7 and above are required to wear masks while indoors at school. The wearing of masks in primary schools is strongly encouraged.

In regards to real time monitoring, to work effectively, CO2 monitors need to be calibrated to take accurate readings, factoring in considerations in each setting such as where they are positioned, if windows are open and how many occupants are in the room.

There is also a great variety in monitors that are available, and these also vary greatly in quality with many unable to be calibrated to take a reliable reading.

Therefore the department does not encourage P&Cs to purchase their own CO2 monitors.

However the department is piloting the use of carbon dioxide monitors in a number of public schools across metro, regional and rural NSW to continue to assess indoor air quality and will use existing systems installed as part of the Cooler Classrooms program.

The trial will provide participating schools with data loggers to take readings across indoor spaces. The trial will provide the department with advice about the effectiveness of the measures adopted, and provide reassurance that existing ventilation strategies are appropriate.

Once complete, the department will share the results.

Yes the trial does include monitoring temperatures.

How do you propose to mobilise air purifiers in bush fire situations?

The department continues to respond, as it has done for many years, as and when required to weather events.

We understand there will be times where maximising natural ventilation may not be a suitable option in some teaching spaces for example due to local weather conditions with poor air quality.

The department will retain a stock of air purification devices to be deployed in the event that sufficient natural ventilation cannot be provided, for example if bush fire smoke reduces the quality of the air at a school. We have secured a stock of air purifiers that will mobilise in the event of bushfire situations, to have these distributed, installed and operating, within a 24-hour period.

These air purifiers clean the air of particles that may be present. Increased ventilation rapidly changes and turns the air over to dilute and eliminate particles through air exchange. They have a demonstrated ability to rapidly remove smoke when modelled.

We continue to work collaboratively with the Rural Fire Service (RFS) to ensure scheduled activities, for example hazard reduction burns, have minimal impact on schools.

Will the department install toilet seat lids?

There are no current plans to install toilet seat lids. Students are encouraged to practice good hygiene, including hand washing and using sanitiser, after using toilet facilities. Good hygiene is one measure in a multi-layered approach that includes vaccinations, masks, cohorting, distancing and ventilation to ensure student and staff safety on school sites.

Is cleaning the air more important than cleaning surfaces?

Providing fresh air is one of many measures to ensure COVID-safe operations in schools. A combination of layered safety measures – vaccination, wearing masks, student cohorting, physical distancing, ventilation, hygiene and cleaning – allows us to prioritise student and staff wellbeing while we keep schools operational.

Vaccination

NSW Health repeatedly states that the best way to protect the 5-11yr students is to have all their supporting adults to be vaccinated. As a family of 8 with only one not able to be vaccinated - how is it appropriate for our unvaccinated children to be sitting and mingling with fellow students who are from unvaccinated families?

The more of our population that we can get vaccinated results in less of the disease (in this case SARs-CoV-2 that causes COVID-19) from circulating which then protects those who cannot be vaccinated. Less circulating virus also reduces the virus' ability to mutate. This process then protects the minority that are not vaccinated. The other layers that add to this protection as with other vaccine preventable diseases include all other IPAC principles, screening, identification.

Close contact/Infection transmission

My youngest daughter's school is presently under lock down and she is a close contact. Yet based on the letter received today and talking to the school my two older girls can still attend a school on a different site.

The approach to contact tracing and management of exposure sites is predominantly the responsibility of Public Health. The aim is to identify those exposed and to reduce further transmission. A risk assessment forms the basis of this approach and starts with containing primary contacts in the first instance, in the situation you've described, your older daughters don't become a contact unless they were exposed in the initial case identification or unless the younger daughter becomes positive and then the contact cycle starts again. The risk of transmission hopefully reduces based on all mitigation strategies in place.