

COVID-19 in schools – the experience in NSW: 18 October 2021 to 17 December 2021

Prepared by the National Centre for Immunisation Research and Surveillance (NCIRS)

18 February 2022

Overview

- This report provides an overview of SARS-CoV-2 Delta (B.1.617.2) variant transmission in all schools in New South Wales (NSW), Australia between 18 October 2021 and 17 December 2021 (end of school term 4). It also examines the emergence and transmission of the SARS-CoV-2 Omicron (B.1.1.529) variant.
- NSW schools resumed face-to-face learning for kindergarten, year 1 and year 12 on 18 October 2021 and for all students on 24 October 2021. From 18 October 2021 to 17 December 2021, there were 23,899 notifications of locally acquired COVID-19 cases in NSW, 33% of which were in those aged ≤19 years.
- 985 COVID-19 exposure events were recorded in NSW educational settings across Term 4, with 1,206 individuals (976 students [80.9%] and 230 staff members [19%]) identified as primary (first) cases, who had an opportunity to transmit SARS-CoV-2 to others in their school. The majority of events (603; 61%) were in primary schools, reflecting higher infection and transmission rates among the unvaccinated population.
- The level of community circulation of SARS-CoV-2 and school attendance strongly influence the likelihood of school exposures occurring. Face-to-face learning increased the number of exposure events from a median of 22 schools per week in Term 3 to 87 schools per week in Term 4.
- Of the 985 exposure events, 126 (involving 179 primary cases) were reviewed in detail; 9,533 individuals (8,472 students [88.9%] and 1,061 staff members [11.1%]) were identified as school contacts of the 179 cases. Most contacts (86.1%; 8,206) underwent SARS-CoV-2 nucleic acid testing. Secondary cases occurred in only 239 (2.9%) contacts across 47 of 126 (37.3%) settings.
- The secondary attack rate during most of Term 4 was low (2.9%) overall, and lowest in high schools (1.0%). This was likely a result of COVID-19 vaccination of children aged 12 years and above, and the other prevention strategies employed.
- Towards the end of Term 4 there was a sharp rise in COVID-19 case notifications and school exposure events, which coincided with the introduction of the Omicron variant into NSW in late November 2021. Forty-two per cent (n=414) of all Term 4 school exposures occurred between 4 and 17 December 2021.
- The transmission rate was modestly higher in schools with SARS-CoV-2 Omicron variant introductions (3.7%) than in those with SARS-CoV-2 Delta variant introductions (2.4%), but not higher than in early 2021 (3.7%) before high COVID-19 vaccine uptake in adults and children. Staff represented a greater proportion of cases following Omicron introduction, emphasising the need for booster vaccination in this group.

Background

The National Centre for Immunisation Research and Surveillance (NCIRS), with the support of the NSW Ministry of Health and NSW Department of Education, has been conducting surveillance of SARS-CoV-2 transmission in educational settings (schools and early childhood education and care [ECEC] services) since the start of the COVID-19 pandemic in 2020 in New South Wales (NSW), Australia. NSW has a population of 8.1 million, with 1.8 million residents aged ≤ 18 years. The state has approximately 3,100 schools and 5,800 ECEC services.

NSW experienced an outbreak of the SARS-CoV-2 Delta (B.1.617.2) variant from 16 June 2021 to October 2021, with community transmission and locally acquired cases of the Delta variant occurring for nearly 6 months.

Educational settings remained open throughout 2021, with varying levels of attendance. From 12 July 2021 to 18 October 2021, in line with stay-at-home orders, attendance in schools fell to 5%, with the majority of school children engaging in online learning. ECEC services remained fully open and had high levels of attendance. During school term 3, 531 educational settings had an exposure event, with a secondary attack rate of 4.6% (Term 3 report),¹ which was 5-fold higher than the secondary attack rate from the ancestral strain in 2020 (0.9%).

NSW schools commenced Term 4 on 5 October 2021. Face-to-face learning resumed for kindergarten, year 1 and year 12 on 18 October 2021 and for all students on 24 October 2021. Mitigation measures were implemented using the [NSW tiered COVID-19 safe schools operation plan](#);² all adults were required to be fully vaccinated by 1 November 2021. Adolescents aged ≥ 12 years were encouraged to be vaccinated. Mask use was mandatory for all adults and high-school students and encouraged for primary school students. Adults (including staff) were required to sign in and out (using QR code system), and non-essential adults were allowed limited entry in educational settings. Students were grouped into class or year groups; out of school care was operational but no external providers were allowed to host before and after school extracurricular activities. Vaccination rates were 92% for dose 1 and 79% for dose 2 in people aged ≥ 12 years on 18 October 2021, rising to 94.3% for dose 1 and 92.6% for dose 2 by 11 December 2021. Adolescent (12–15 years) second dose vaccination rates increased from 49.5% on 18 October 2021 to 79.4% on 17 December 2021.

On 25 November 2021 the World Health Organization declared the SARS-CoV-2 Omicron (B.1.1.529) variant as a Variant of Concern (VOC). Omicron partially escapes immune recognition from existing vaccines due to the number of mutations in the spike protein targeted by most of the widely available vaccines, derived from ancestral strains of SARS-CoV-2. On 27 November 2021 the first case of the Omicron variant was notified in NSW in an adult, with the first school case identified on 1 December 2021.

This report provides an overview of SARS-CoV-2 Delta (B.1.617.2) variant transmission in all schools in NSW, Australia between 18 October 2021 and 17 December 2021 (end of school term 4) and also examines the emergence and transmission of the SARS-CoV-2 Omicron (B.1.1.529) variant.

For more information on the outbreak response, visit [NSW Health website](#). Refer also to [NSW public health orders and restrictions](#).

Methods

All NSW schools that had a child or adolescent aged ≤ 18 years and/or adult with laboratory-confirmed COVID-19 attend while infectious (defined as 48 hours before symptom onset, based on national guidelines) were investigated to determine onward transmission in close contacts from the educational setting.

In Term 4, the level of contact was determined by the Contact Risk Matrix for schools (refer to [Appendix 1](#) and [Appendix 2](#)). The contact risk category was determined by contact type, vaccination status of the exposed person and mask status during exposure.

Both close and casual contacts were required to undergo SARS-CoV-2 nucleic acid testing before de-isolation. Close contacts were required to quarantine for 7 (2-dose vaccinated) or 14 days (< 2 dose vaccinated) from their last exposure date, respectively. Casual contacts were required to undergo nucleic acid testing after knowledge of

exposure and to quarantine until a negative result was confirmed. Nucleic acid test results were reviewed for both close and casual contacts.

This report includes data on schools where a primary (first) case(s) occurred between 18 October 2021 and 17 December 2021. All other schools with cases until the end of November 2021 were assumed to have the Delta variant (based on genotyping data affirming no community transmission of the Omicron variant to that time). After 1 December 2021, a school was classified to have an Omicron variant introduction if the primary case was confirmed to have Omicron variant (by whole genome sequencing or S-gene drop out) or if the primary case was suspected to have Omicron variant (close contact of a confirmed Omicron case). The majority of the primary cases/exposure events in December did not have information on the type of variant so while we included them in the overall analysis, we excluded these schools when comparing secondary attack rate of the Delta variant with that of the Omicron variant. Full details of our methods can be found in our previous [reports](#) and [publication](#).³

Results

From 18 October 2021 to 17 December 2021, there were 23,899 notifications of locally acquired COVID-19 cases in NSW. Of these, 7,771 (32.5%) were in those aged 0 to ≤19 years: 2,913 (12.1% total population) among adolescents aged 12–19 years and 3,470 (14.5% total population) among children aged 5–11 years (refer to Appendix).

In this reporting period, there were 985 COVID-19 exposure events in schools, involving 1,206 primary (first) cases (976 students and 230 staff members), as shown in [Figure 1](#). Forty-two per cent (n=414) of these exposures occurred between 4 December 2021 and 17 December 2021.

While COVID-19 exposure events in schools increased to 87 per week after the commencement of face-to-face learning in Term 4, up from a median of 22 per week in Term 3, total NSW COVID-19 case notifications did not go up (a median of 1,652 notifications in Term 4 compared with 2,092 in Term 3). In Term 3, staff made up 38.1% of primary cases but this dropped to 7% (49/707) between 18 October 2021 and 3 December 2021, and increased again to 36% (181/499) from 4 December 2021 to 17 December 2021 (refer to [Figure 1](#)).

The rise in case notifications in December 2021 was associated with a rise in school incursions: 2,605 community-wide case notifications and 184 school introductions (220 primary cases) during the week of 4 to 10 December 2021 and 10,031 community-wide case notifications and 230 school introductions (279 primary cases) during the week of 12 to 18 December 2021 (refer to [Figure 2](#)).

Primary schools experienced the highest number of exposure events (n= 603 of 985; 61.2% of total exposure events; refer to [Table 1](#)), and case notifications among children aged 5–11 years rose from being 8% of total NSW notifications to 13% of total notifications in Term 4 (refer to [Figure 2a](#)).

Figure 1: Primary case type by date of school introduction in 985 schools between 18 October 2021 and 17 December 2021

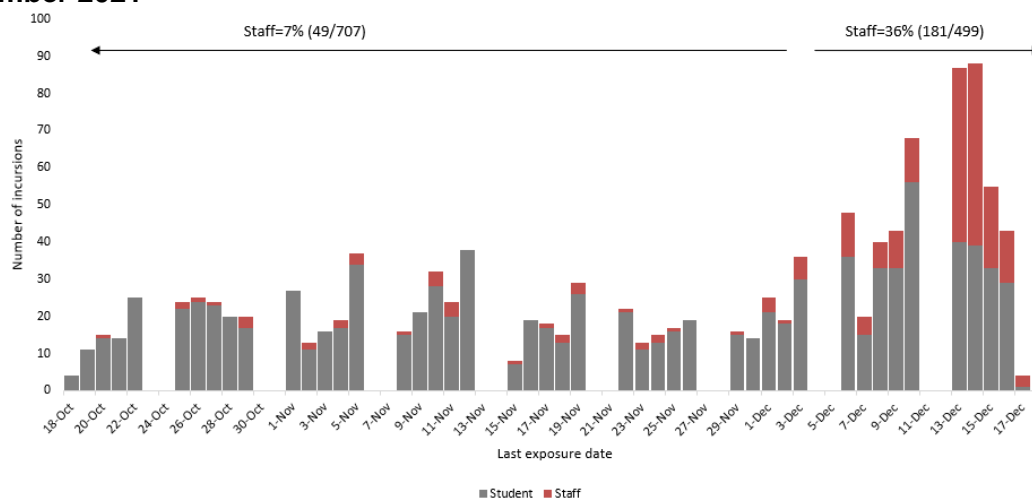
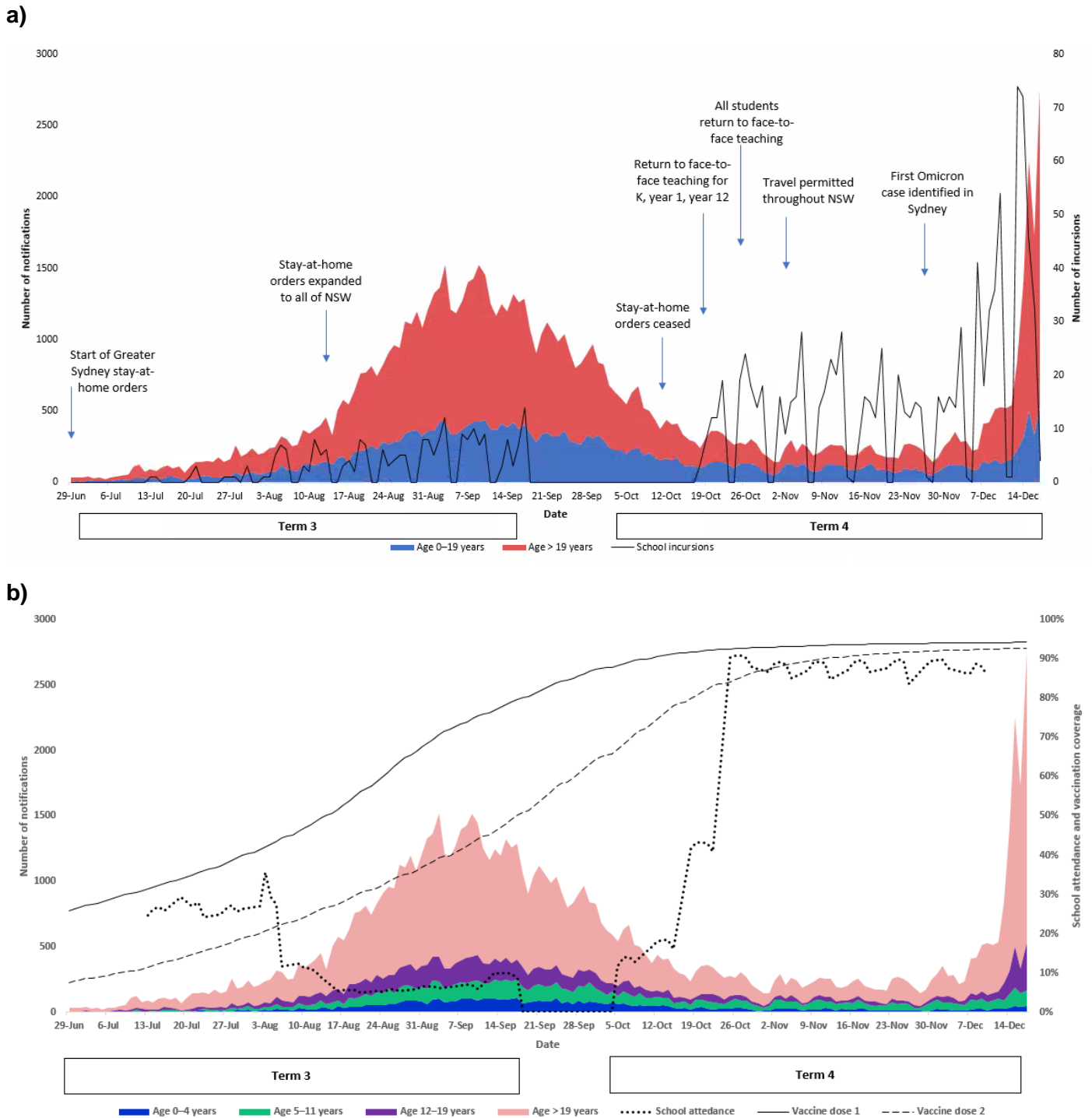


Figure 2: COVID-19 notifications and school introductions between 29 June 2021 and 17 December 2021 with a) number of daily introductions into schools* and b) daily school attendance rate and cumulative vaccination coverage† (dose 1 and 2) in ages 12 years and above



*Data between 5 October and 17 October (first 2 weeks in Term 4) were not analysed, but public health notification data show similar number of incursions as in the last 2 weeks of Term 3.

†Vaccination in adolescents aged 12–15 years commenced on 13 September 2021.

Of the 985 exposure events, 126 (involving 179 primary cases) were reviewed in detail; 9,533 individuals (8,472 students [88.9%] and 1,061 staff members [11.1%]) were identified as school contacts of the 179 cases. Most contacts (86.1%; 8,206) underwent SARS-CoV-2 nucleic acid testing.

Despite schools resuming full face-to-face learning, the attack rate in Term 4 was lower (2.9%) than that in Term 3 (4.6%) (refer to [Table 1](#)). Transmission in high schools decreased from 2.9% in Term 3 to 1.0% in Term 4 2021. Transmission in high schools in Term 4 (1.0%) was a third of that seen in primary schools (3.1%). Secondary attack rate decreased in primary schools between Term 3 (3.7%) and Term 4 (3.1%).

Seven schools experienced large outbreaks (>10 cases) between 18 October 2021 and 17 December 2021. Out-of-school activities such as birthday parties, sleepovers, family and friend gatherings and ride-sharing contributed to transmission among children in these schools.

The initial Omicron variant outbreak occurred in a school in Western Sydney. The outbreak was linked to a case who had arrived from southern Africa. 21 out of 214 school contacts tested positive; however, of these secondary cases, 7 most likely acquired infection at a party in a climbing gym and 4 via household contact. Of the secondary cases, 30/48 (62.5%) of family members (tertiary household contacts) became positive. Several other schools had exposures as a consequence of the gym or household exposure. Schools with Omicron introductions had a slightly higher rate of infections (3.7%) overall among contacts, compared to Delta (2.4%). Refer to [Table 2](#).

Table 1: Total number of school exposures and primary cases between 18 October 2021 and 17 December 2021 by school setting

	Total number of school exposures	Total number of primary cases (n Staff/ n Student)
Overall	985	1206 (230/976)
K-12 Schools	116	149 (28/121)
High Schools (HS)	252	289 (78/211)
Primary Schools (PS)	603	754 (120/634)
School for specific purposes (SSP)	14	14 (4/10)

Table 2: Secondary attack rates of COVID-19 in 126 selected educational settings, by primary and secondary case type, setting type and variant, between 18 October 2021 and 17 December 2021*

Primary case type	Contact type	Number of close and casual contacts who tested positive/total tested (% secondary attack rate)		
		Delta	Omicron	All
Overall		96 schools	16 schools	126 schools
Any	All	147/6031 (2.4)	41/1099 (3.7)	239/8206 (2.9)
Adult	All	38/884 (4.3)	6/290 (2.1)	44/1191 (3.7)
Adult	Adult	4/72 (5.6)	0/31 (0)	4/108 (3.7)
Adult	Child	34/812 (4.2)	6/259 (2.3)	40/1083 (3.7)
Child	All	110/5317 (2.1)	35/809 (4.3)	196/7185 (2.7)
Child	Adult	1/462 (0.2)	7/117 (6)	8/712 (1.1)
Child	Child	109/4855 (2.2)	28/692 (4)	188/6473 (2.9)
K–12 Schools		8 schools	1 school	14 schools
Any	All	21/459 (4.6)	18/240 (7.5)	79/1280 (6.2)
Adult	All	15/173 (8.7)	0/0 (0)	15/173 (8.7)
Adult	Adult	2/37 (5.4)	0/0 (0)	2/37 (5.4)
Adult	Child	13/136 (9.6)	0/0 (0)	13/136 (9.6)
Child	All	6/325 (1.8)	18/240 (7.5)	64/1146 (5.6)
Child	Adult	0/25 (0)	0/25 (0)	0/133 (0)
Child	Child	6/300 (2)	18/215 (8.4)	64/1013 (6.3)
High Schools		26 schools	4 schools	32 schools
Any	All	22/2204 (1)	5/288 (1.7)	27/2665 (1)
Adult	All	18/492 (3.7)	5/249 (2)	23/741 (3.1)
Adult	Adult	0/15 (0)	0/22 (0)	0/37 (0)
Adult	Child	18/477 (3.8)	5/227 (2.2)	23/704 (3.3)
Child	All	5/1843 (0.3)	0/39 (0)	5/2055 (0.2)
Child	Adult	0/114 (0)	0/0 (0)	0/139 (0)
Child	Child	5/1729 (0.3)	0/39 (0)	5/1916 (0.3)
Primary schools		57 schools	9 schools	71 schools
Any	All	103/3328 (3.1)	15/523 (2.9)	129/4156 (3.1)
Adult	All	5/219 (2.3)	1/41 (2.4)	6/260 (2.3)
Adult	Adult	2/20 (10)	0/9 (0)	2/29 (6.9)
Adult	Child	3/199 (1.5)	1/32 (3.1)	4/231 (1.7)
Child	All	98/3109 (3.2)	14/482 (2.9)	123/3896 (3.2)
Child	Adult	1/303 (0.3)	4/69 (5.8)	5/397 (1.3)
Child	Child	97/2806 (3.5)	10/413 (2.4)	118/3499 (3.4)
Schools for Specific Purposes		5 schools	2 schools	9 schools
Any	All	1/40 (2.5)	3/48 (6.3)	4/105 (3.8)
Adult	All	0/0 (0)	0/0 (0)	0/17 (0)

Adult	Adult	0/0 (0)	0/0 (0)	0/5 (0)
Adult	Child	0/0 (0)	0/0 (0)	0/12 (0)
Child	All	1/40 (2.5)	3/48 (6.3)	4/88 (4.5)
Child	Adult	0/20 (0)	3/23 (13)	3/43 (7)
Child	Child	1/20 (5)	0/25 (0)	1/45 (2.2)

* Represents 126 schools out of 985 school exposures. Schools were sampled to ensure distribution across geographic regions, exposure dates and school type. Total contacts in these 126 schools were 9,533 individuals (8,472 students [88.9%] and 1,061 staff members [11.1%]).

Note: We expanded to report secondary attack rate among close and casual contacts in Term 4 as they would have met close contact criteria in Term 3.

Discussion

In NSW school term 4 2021 students returned to full face-to-face learning from 18 October 2021 as a large SARS-CoV-2 Delta variant outbreak was in decline. The Delta variant continued to circulate within the community at low rates. Re-opening of schools was associated with a 5-fold increase in the average number of school exposures. However, secondary transmission within schools was lower (2.9%) in Term 4 than in Term 3 (3.7%).

Primary schools experienced the highest number of exposures (n= 603; 61.2% of total) and children aged 5–11 years rose as a proportion of total NSW cases from 8% in Term 3 to 13% in Term 4.

At the time of school reopening in Term 4, community-wide restrictions, including 2-dose vaccination requirement, mask use and QR check-in for entry into all educational settings, venues and retail shops for those aged 16 years and older, were still in force. The reopening of schools may have stalled the drop in case numbers but did not drive increase in total COVID-19 case notifications in NSW. The increase in case notifications seen from December 2021 (after 9 weeks of face-to-face learning) was associated with large social gatherings among adults and also coincided with the introduction of the more transmissible Omicron variant. In schools where large outbreaks occurred, out-of-school gatherings and household transmission were an important source of infection, rather than in-school exposure alone.

This suggests that school-based exposures (as compared with other social activities) are less likely to drive community transmission compared with other factors, and is consistent with other studies showing high rates of community transmission impact the rate of COVID-19 in schools.

By the end of school term 4 in December, 24 schools had confirmed or suspected Omicron primary cases. Schools with Omicron variant exposures had a 1.5-fold higher secondary attack rate (3.7%) than those with Delta variant exposures (2.4%). This is in contrast to other settings such as nightclubs and social gatherings where secondary attack rates associated with the Omicron variant have been reported to be as high as 50%⁴ but comparable to secondary attack rate in Term 3 (3.7%) when vaccine uptake in staff and students was low.

By 18 October 2021, 80% of the population aged 12 years and older was fully vaccinated (2 doses). This increased to 93% by 17 December 2021. High vaccination rates likely contributed to the drop in number of primary cases among staff members and in high-school exposures and transmission in Term 4 compared with Term 3. An increase in primary cases among staff members was again noted after December, resulting from Omicron infections related to social gatherings. A higher secondary attack rate in high schools and K-12 schools and from staff to student in primary schools was also reported with Omicron school exposures, suggesting that population vaccinated with a 2-dose primary schedule was effective in preventing Delta infections and mitigating introductions and transmission into schools, but may be less effective in preventing Omicron infections.

Despite the number of school exposures, average attendance in Term 4 was high, with 89% of students attending face-to-face learning from 24 October 2021, enabling over 1 million students to learn within the classroom. Given the low rate of transmission in schools, more students missed face-to-face learning due to the quarantine requirements

from being a school contact rather than from COVID-19. To minimise lost learning days, rapid antigen testing for close contacts was commenced in some NSW schools on 26 October 2021 as a method to return students to the classroom earlier in their isolation period. Data on the NSW rapid antigen home testing 'test to stay' program in Term 4 will be reported separately.

Since the end of the school year in December 2021, COVID-19 case notifications have risen in NSW to an average of 30,000 cases per day, with infection rates likely to be much higher than the reported rates. Schools reopened after the summer holidays from late January 2022, and frequent school exposures and transmission events may occur. The [2022 NSW Government return to school plan](#)⁵ incorporates multiple strategies, including rapid antigen testing as a surveillance tool to identify early infection and aim to reduce the likelihood of attendance at schools by staff or students with SARS-CoV-2 infection. In addition, children aged 5 to 11 years now have the opportunity to be vaccinated and adults are recommended to receive a COVID-19 vaccine booster 3 months after their second dose of vaccination to increase protection against infection and illness from the SARS-CoV-2 Omicron variant. We have shown in NSW that with community- and school-based multi-layered preventative strategies in place and lower levels of community transmission, face-to-face learning in schools did not drive COVID-19 community transmission in Term 4 2021. Moreover the negative impacts experienced by children and the community from school closures outweigh the impact of SARS-CoV-2 infection in schools, which can be minimised using a range of effective strategies.

Acknowledgements

We gratefully acknowledge all the schools, staff members, children and families who have participated in the enhanced investigations.

The following people have contributed to the COVID-19 schools transmission investigation project:

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Lead authors: Archana Koirala, Helen Quinn, Noni Winkler, Kristine Macartney

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Design, publication and media: Salema Barrett, James Green, Deepika Jindal, Madeleine Smith

NSW Health: Christine Selvey, Jeremy McAnulty, Caroline Sharpe, Michelle Cretikos, Victoria Pye, Jennie Musto, Joanna Forbes, MoH Operations, MoH COVID-19 Data Team: Daniel Barry, Emily McGovern, Richard Harwood, Hafiz Khusyairi, Aedan Roberts, Nastaran Faraji, Xiao Chen Yu

NSW Education: Trish van Tussenbroek, Nicki Surace, Kim Hoskin, Paul Wood

Independent schools: Robyn Yates

Catholic schools: Gerard Delany, Jacqueline Frost

Public Health Units:

South-Eastern Sydney: Vicky Sheppeard, Mark Ferson, Anthea Katelaris, Catherine Bateman-Steel

South-Western Sydney: Naru Pal, Kate Alexander, Stephen Conaty

Western Sydney: Shopna Bag, Conrad Pereira

Sydney: Leena Gupta, Johanne Cochrane, Isabel Hess

Northern Sydney: Michael Staff

Nepean Blue Mountain: Sheena Kakar, Victor Carey

Hunter New England: David Durrheim, Craig Dalton, Rachel Latta

Western NSW: Priscilla Stanley

Glossary

Community non-household contact	a person in close contact of a COVID-19 case who does not live in their household
ECEC	Early childhood education and care: all forms of education for children under school-age, including childcare and preschool
High school	a secondary school (Year 7 to 12) that caters for children aged 12 to ≤18 years
Household tertiary case	a person who lives within the same household as a secondary case and gets infected with SARS-CoV-2 from exposure to that secondary case
K-12 school	a school (Kindergarten to Year 12) that caters for children aged 4 to ≤18 years in which contacts were not restricted to the primary or secondary school
LGA	Local Government Area
NSW	New South Wales
Primary case	a person who has SARS-CoV-2 infection and brings it into a school or ECEC
Primary school	an elementary school (Kindergarten to Year 6) that caters for students aged 4 to ≤12 years
SARS-CoV-2	Severe Acute Respiratory Syndrome-Coronavirus-2: the name of the coronavirus that causes COVID-19 disease
SARS-CoV-2 nucleic acid test	a test that detects the SARS-CoV-2 genome
Secondary attack rate	a measure of the frequency of new cases of COVID-19 among the contacts of primary cases
Secondary case	a person who gets infected with SARS-CoV-2 in a school or ECEC setting from exposure to a person with COVID-19
Secondary transmission	transmission of SARS-CoV-2 from a primary case to exposed contacts
SSP	Schools for specific purposes
VOC	Variant of Concern

References

1. National Centre for Immunisation Research and Surveillance (NCIRS). COVID-19 transmission in NSW schools and ECEC services in Term 3, 2021. Available from: <https://www.ncirs.org.au/covid-19-in-schools>. Accessed 17 February 2022.
2. NSW Department of Education. COVID-19: Advice for families. Available from: <https://education.nsw.gov.au/covid-19/advice-for-families>. Accessed 1 February 2022.
3. Macartney K, Quinn HE, Pillsbury AJ, Koirala A, Deng L, Winkler N, Katelaris AL, O'Sullivan MVN, Dalton C, Wood N, and the NSW COVID-19 Schools Study Team. Transmission of SARS-CoV-2 in Australian educational settings: a prospective cohort study. *The Lancet Child and Adolescent Health*. 2020;4: P807-816.
4. Liu B, Sandrine S, Pye V, Law C, Dalton C, Durrheim D, Macartney K. Effectiveness of COVID-19 vaccination against SARS-CoV-2 Omicron variant in two outbreaks in indoor entertainment settings in Australia. Available from: SSRN: <https://ssrn.com/abstract=4026084>. Accessed 24 February 2022.
5. NSW Government. COVID-19 advice for parents, students and children. Available from: <https://www.nsw.gov.au/covid-19/stay-safe/advice-for-parents-students#toc-term-1-2022-covid-smart-measures-for-schools>. Accessed 1 February 2022

Appendix 1: Contact risk assessment matrix - Early Childhood Education and Care services, Schools for Specific Purposes and Primary schools

		CONTACT TYPE						
		No contact	Low risk scenario	Moderate risk scenario	High risk scenario			
<p>Case = confirmed PCR positive case in a staff member, student, parent or any other adult or child that enters a closed school space (e.g. visitor, cleaner).</p> <p>Contact = anyone who had contact with a confirmed positive case.</p> <p>All exposure categories are based on local risk assessment. Risk assessment should include the size of the indoor space, duration of contact, and distance between case and contact.</p> <p>95m² is considered standard dimensions for a General Learning Area (GLA) e.g. classroom</p>		<p>Any distanced (>1.5 metres) contact in a large indoor space e.g. hall (>300m²) or outdoors</p> <p>OR</p> <p>Transient (<1 minute), distanced (>1.5 metres) contact in any indoor space</p> <p><i>That does not meet the criteria for medium or high risk</i></p>	<p>Non-transient (>1 to 15 minutes) distanced (>1.5 metres) contact in an indoor space <95m² (e.g. small office, sick bay)</p> <p>OR</p> <p>Non-transient (>1 to 45 minutes) distanced (>1.5 metres) contact in an indoor space 95-300m² (e.g. classroom)</p> <p>Transient (<1 minute) face-to-face contact indoors (such as a corridor)</p> <p><i>That does not meet criteria for high risk</i></p>	<p>Any face-to-face contact indoors within 1.5 metres and at least 1 minute</p> <p>OR</p> <p>Direct physical contact (e.g. shaking hands, hugging, kissing, played directly with case in playground)</p> <p>OR</p> <p>Extended (>15 minutes) and distanced (>1.5 metres) contact in the same enclosed space <95 m² (e.g. small office, sick bay, changing rooms, toilets, staffroom)</p> <p>OR</p> <p>Prolonged (>45 minutes) and distanced (>1.5 metres) contact in the same enclosed space >95-300 m² (e.g. classroom, large staff room/office space)</p>	<p>Example settings: separate entrance and exit points to classrooms or separate classrooms with no passing or interaction between groups</p>	<p>Example settings: sports hall, playground space, passing each other in the corridor or entry/exit points (no conversation), non-contact sport e.g. tennis (not including changing rooms)</p>	<p>Example settings: staff member entering small office for <15 minutes and distanced from the case, or someone entering a classroom for <45 minutes and distanced from the case.</p>	<p>Example settings: includes social groups/named contacts including outside school hours, school bus, classroom >45 minutes, contact sport indoors e.g. basketball, providing personal care, toileting, children in OOSH (before or after school care).</p>
		VACCINATION STATUS OF THE EXPOSED PERSON						
MASK STATUS DURING EXPOSURE			Vaccinated	Unvaccinated	Vaccinated	Unvaccinated	Vaccinated	Unvaccinated
CONTACT RISK CATEGORY	Contact: No mask Case: No mask	Minimal Risk	Low	Low	Low	Casual	Close	Close
	Contact: Mask Case: No mask OR Contact: No mask Case: Mask	Minimal Risk	Low	Low	Low	Casual	Casual	Close
	Contact: Mask Case: Mask	Minimal Risk	Low	Low	Low	Casual	Low	Close

Appendix 2: Contact risk assessment matrix – High schools

<p>Case = confirmed PCR positive case in a staff member, student, parent or any other adult or child that enters a closed school space (e.g. visitor, cleaner).</p> <p>Contact = anyone who had contact with a confirmed positive case.</p> <p>All exposure categories are based on local risk assessment. Risk assessment should include the size of the indoor space, duration of contact, and distance between case and contact.</p> <p>95m² is considered standard dimensions for a General Learning Area (GLA) e.g. classroom</p>		CONTACT TYPE							
		No contact	Low risk scenario Any distanced (>1.5 metres) contact in a large indoor space e.g. hall (>300m ²) or outdoors OR Transient (<1 minute), distanced (>1.5 metres) contact in any indoor space		Moderate risk scenario Non-transient (>1 to 15 minutes) distanced (>1.5 metres) contact in an indoor space <95m ² (e.g. small office, sick bay) OR Non-transient (>1 to 45 minutes) distanced (>1.5 metres) contact in an indoor space 95-300m ² (e.g. classroom) Transient (<1 minute) face-to-face contact indoors (such as a corridor)		High risk scenario Any face-to-face contact indoors within 1.5 metres and at least 1 minute OR Direct physical contact (e.g. shaking hands, hugging, kissing, played directly with case in playground) OR Extended (>15 minutes) and distanced (>1.5 metres) contact in the same enclosed space <95 m ² (e.g. small office, sick bay, changing rooms, toilets, staffroom) OR Prolonged (>45 minutes) and distanced (>1.5 metres) contact in the same enclosed space >95-300 m ² (e.g. classroom, large staff room/office space)		
		Example settings: separate entrance and exit points to classrooms or separate classrooms with no passing or interaction between groups	Example settings: sports hall, playground space, passing each other in the corridor or entry/exit points (no conversation), non-contact sport e.g. tennis (not including changing rooms)		Example settings: staff member entering small office for <15 minutes and distanced from the case, or someone entering a classroom for <45 minutes and distanced from the case.		Example settings: includes social groups/named contacts including outside school hours, school bus, classroom >45 minutes, contact sport indoors e.g. basketball, providing personal care, toileting, children in OOSH (before or after school care).		
		VACCINATION STATUS OF THE EXPOSED PERSON							
	MASK STATUS DURING EXPOSURE		Vaccinated	Unvaccinated	Vaccinated	Unvaccinated	Vaccinated	Unvaccinated	
CONTACT RISK CATEGORY	Contact: No mask Case: No mask	Minimal Risk	Low	Low	Low	Casual	Close	Close	
	Contact: Mask Case: No mask OR Contact: No mask Case: Mask	Minimal Risk	Low	Low	Low	Casual	Casual	Close	
	Contact: Mask Case: Mask	Minimal Risk	Low	Low	Low	Casual	Low	Close	