







COVID-19 and Children's Surveillance Report

Number 1

Compiled: 03 December 2021







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- This weekly summary documents the latest COVID-19 surveillance data in children and adolescents, with a focus on Victoria and New South Wales (NSW) as well as specific countries that are relevant to the Australian context because of their size, COVID-19 epidemiology, the mitigation measures in place and data availability.
- Data on Multisystem Inflammatory Syndrome in Children (MIS-C), or otherwise known as Paediatric Inflammatory Multisystem Syndrome (PIMS-TS) was also searched for but is not always reported.
- This report will be updated weekly using the most recently available data. South African data will be added next week.
- The number of infections in unvaccinated children may also increase if school mitigation measures are few, there are changes to testing criteria and the adoption of screening in schools. The number of cases will be biased towards the age groups that are tested most.

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- Throughout 2021, the proportion of infections in unvaccinated children has generally increased as vaccination of adults has increased. This proportion may continue to increase as vaccines are not yet available for children under 12 years of age, except recently in the USA and several other countries.
- COVID-19 epidemiology in children and adolescents varies by setting.
- Following the return to school, many settings with high vaccination coverage and school mitigation measures have had few infections and outbreaks. Other settings with low coverage in all ages, including adolescents, and few mitigation measures have experienced an increase in case numbers in children and school outbreaks.
- Infections appear to be stable in Victoria and have declined in NSW with the return of face-to-face learning despite many school infections. This could be attributable to high vaccine coverage in ≥12 year olds and implementation of mitigation measures in schools including test, trace, isolate and quarantine (TTIQ).
- Victoria opened all schools for onsite fulltime schooling on 1 November 2021. This followed a staggered return to in-person learning from 6 October, firstly with Year 12, followed by primary school years from 18 October. There are currently a total of ~1100 confirmed cases per day in all ages. There is no breakdown by age.
- In New South Wales, early childhood and education centres have been open throughout the entire Delta period. Despite this, the effective reproduction number (an estimate of how many people are infected by each positive case) has declined, which suggests young children contribute little to broader community transmission. Staged school re-opening for in-person learning started on

Summary of COVID-19 epidemiology in children and adolescents

Country	Cases	Hospitalisations	MIS-C/PIMS-TS	Total deaths^
VIC, Australia	↓*	Not available	Not available	2 ^b
NSW, Australia	↓	↓*	Not available	1 ^b
Canada	1	\	Not available	19 ^b
Denmark	↑	↑*	Not available	Not available
England, UK	Stable	↓	Not available	70 ^b
Finland	↑ 0-9y ↑ unvaccinated 12-19y	↑ but very low	Not available	0
Scotland, UK	Stable	Stable	Not available	3ª
Singapore	Stable	Stable	5 cases	0
USA	 	\	5973 cases	630 ^b

Note: Trends and values are for children only, unless otherwise specified.

*Available data includes both children and adults.

^Age range for child deaths between 0-19y except Scotland (0-14y) and USA (0-17y). Deaths ^adue to COVID-19 or ^bwith COVID-19.

- 11 October and onsite fulltime schooling commenced on 8 November. The case numbers continue to show a downward trend in all age groups, including children.

 In Canada, where -83% of 12-17 year olds are fully vaccinated, there has been no increase in cases in children aged 12+ years following schools reopening in early
- In Canada, where ~83% of 12-17 year olds are fully vaccinated, there has been no increase in cases in children aged 12+ years following schools reopening in early September. There was an initial steep increase in infections in 5-11 year olds after schools re-opened, but this is now declining. In the province of British Columbia, infections increased in children 5-11 years of age during the first two weeks of school reopening in September 2021, primarily in areas of lower vaccine coverage. Infections in this age group were trending downwards and now remain relatively stable. The increase in infections in September was partly due to a significant increase in testing among children. Serious illness in children has been rare in this province.
- In Europe and North America, schools returned after the summer break in September 2021.
- In **Denmark**, all mitigation measures in schools were lifted in early October 2021 except for a recommendation of weekly testing for staff and students aged 9 years and older who are unvaccinated. Some Public Health and Social Measures (PHSM) have been reintroduced due to a rise in COVID-19 cases, including indoor mask wearing and proof of vaccination to attend shops. in cases in all age groups from late September 2021 following return to school. Total infection and hospitalisation rates are on an upward trend.
- In **England**, following school re-opening, infections increased mostly in 12-15 years followed by primary school ages. Infection then decreased particularly in children 10-19 years of age, but also in children aged 5-9 years, before increasing slightly again. Infections in children aged 0-4 years remained amongst the lowest of most age groups. Vaccine uptake is low in 12-



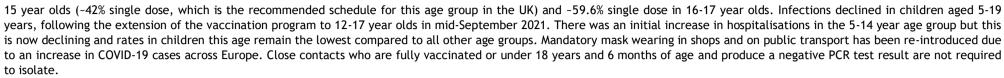




¹ Russell FM, Anderson V, Crawford N, Curtis N, Danchin M, Goldfeld S, Hart J, Keeble T, Medley T, Mulholland K, Ranganathan S, Suryawijaya Ong D, Overmars I, Perrett K, Steer A. COVID-19 in Early Childhood Education and Care & Schools. Research Brief Number 1, Version 1: 14 October 2021. Parkville, Victoria, Australia: Murdoch Children's Research Institute, The Royal Children's Hospital, University of Melbourne Department of Paediatrics; 2021.

² American Academy of Pediatrics (AAP). Children and COVID-19: State-Level Data Report 14 October 2021. Illinois, US: AAP; 2021.

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- In **Finland**, which began vaccinating adolescents aged 12+ years in August 2021, there has been an increase in infections in under 19-year-olds after schools reopened in September and a small increase in hospitalisations amongst the unvaccinated in this age group, but rates remain very low. There were far fewer infections in the vaccinated compared to the unvaccinated.
- In **Scotland**, infections and hospitalisations increased in children with the return to in-person learning but then declined. There has been a total of three deaths due to COVID-19 amongst children aged 0-14y throughout the entire pandemic. Masks are recommended in secondary schools in Scotland. The country has vaccinated ~59% of 12-15 year olds with a single dose.
- In **Singapore**, schools re-opened with <70% total vaccine coverage in July 2021. Currently there are ~1200 cases per day and additional restrictions. There has been one ICU admission due to MIS-C and no deaths in children for the entire pandemic. A total of five cases of MIS-C have been reported, all from the current Delta wave. Primary schools were closed as a precautionary measure to ensure that primary school exams were not disrupted. There has been a phased return to schools from 11 October. Mitigation measures include vaccination of 12+ years, mask wearing, cohorting and screening with rapid antigen testing (RAT).
- In the **United States**, there are large differences in infection and hospitalisation rates in children between states due to differences in vaccination coverage and adherence to PHSM. Where there is high uptake of PHSM, such as in San Francisco, there are low infection and hospitalisation rates in children, and infections have declined in all age groups with school reopening. There is currently a downward trend in infections and hospitalisations in most US states including in unvaccinated children <12 years. There have been 630 deaths in children due to COVID-19 throughout the pandemic, accounting for <0.2% of all COVID-19 deaths in the US. Texas has had the highest number of child deaths (112) and there are 6 States that have reported 0 deaths throughout the entire pandemic. A total of 5973 cases of MIS-C have been reported, including 52 deaths.







Abbreviation	Term
MIS-C	Multisystem inflammatory syndrome in children
NSW	New South Wales, Australia
PCR	Polymerase chain reaction
PHSM	Public health & social measures
PIMS-TS	Paediatric inflammatory multisystem syndrome
RAT	Rapid antigen testing
TTIQ	Test, trace, isolate, quarantine





Australia: Victoria

(population 6.6 million)

PHSM³ Schools & mitigation⁴ Vaccination coverage⁵ All students returned to onsite fulltime Age group (years) 1st dose (%) 2nd dose (%) As of 19 Nov 2021: Phase D schooling from 1 Nov 2021 12-15 87.0 79.6 All gathering limits, capacity and density limits Standard PHSM, staggered return, cohorting, removed, masks only required in limited high-risk or 16+ 93.4 91.1 masks in primary & secondary, mandatory low-vaccinated settings, onsite work can return for fully Third dose for immunocompromised available from early Oct 2021, booster dose available to all vaccination for staff from 18 Oct, RAT available eligible adults aged 18y+. Coverage data not available. vaccinated people, all shops open, TTIQ, QR check-in, for students and staff who are close contacts at proof of vaccination to attend premises an educational setting, all educational contacts can return to school after a negative standard PCR following exposure Mandatory vaccination for staff Hospitalisations in children⁷ Deaths by age group8 Infections by age group⁶ Daily new cases in Victoria People who have passed away with COVID-Current cases in 289 43 hospital Last 30 days 03/12/2021 No age breakdown Victorian hospitalisation and ICU counts exclude COVID-19 patients who are still in hospital but no longer infectious Cases by age group and gender 40-49 One 15 year old and one child under 10 with multiple underlying conditions and in palliative care died with COVID-19







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https://www.coronavirus.vic.gov.au/coronavirus-covidsafe-settings

https://www.coronavirus.vic.gov.au/education-information-about-coronavirus-covid-19

https://www.health.gov.au/resources/collections/covid-19-vaccination-daily-rollout-update

https://www.coronavirus.vic.gov.au/victorian-coronavirus-covid-19-data https://www.coronavirus.vic.gov.au/victorian-coronavirus-covid-19-data

https://www.coronavirus.vic.gov.au/additional-covid-19-case-data#cases-in-hospital

Australia: New South Wales

(population 8.2 million)

PHSM9

Mandatory masks indoors and on public transport, TTIQ,
QR check-in, all shops open

Vaccinated people: Proof of vaccination to attend premises

Not fully vaccinated: No visitors at home with exceptions, attendance in shops limited to essential services only

Schools & mitigation 10,11

All students returned to onsite fulltime schooling from 8 Nov 2021

Standard PHSM, RAT home testing for educational contacts

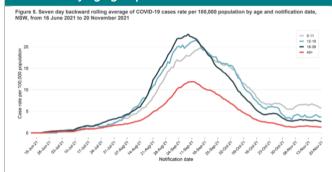
Mandatory vaccination for staff from 8 Nov 2021

Vaccination coverage 12

Age group (years)	1st dose (%)	2 nd dose (%	
12-15	81.4	77.0	
16+	94.6	92.7	

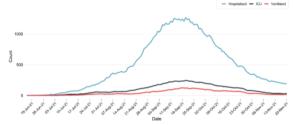
Third dose for immunocompromised available from early Oct 2021, booster dose available to all eligible adults aged 18y+. Coverage data not available.

Infections by age group 13



Hospitalisations in children¹⁴

		Since 16 Jun 202	Jan 2020 – 15 Jun 2021		
Age-group (years)	Hospitalised	Percentage of cases hospitalised ⁴	Hospitalised per 100,000 population	Hospitalised	Percentage of cases hospitalised ¹
0-9	402	3%	39.8	4	2%
10-19	503	4%	52.2	10	3%
20-29	1,293	9%	110.3	27	2%
30-39	1,558	12%	133.1	46	4%
40-49	1,485	16%	143.8	48	7%
50-59	1,411	21%	145.1	78	11%
60-69	1,113	29%	132.4	117	18%
70-79	782	42%	134.2	92	23%
80-89	518	56%	188.9	52	43%
90+	125	54%	180.2	16	38%
Total	9,190	12%	113.6	490	9%



Majority of admissions in <12y children are for social reasons as parents are hospitalised for treatment of COVID-19

Graph is not available by age group

Deaths by age group 15

Table 5. Deaths following recent infection with COVID-19, by age group, from January 2020 to 20 November 2021

		Since 16 Jun 202	:1	Jan 2020 -	- 15 Jun 2021
Age-group (years)	Number of deaths	Case fatality rate	Fatality rate per 100,000 population ³	Number of deaths	Case fatality rate ²
0-9	0	0%	0.0	0	0%
10-19	1	<1%	0.1	0	0%
20-29	6	<1%	0.5	0	0%
30-39	15	<1%	1.3	0	0%
40-49	26	<1%	2.5	0	0%
50-59	63	1%	6.5	1	<1%
60-69	100	3%	11.9	4	1%
70-79	132	7%	22.7	15	4%
80-89	161	17%	58.7	20	16%
90+	62	27%	89.4	16	38%
Total	566	1%	7.0	56	1%

Proportion of cases with a severe outcome (ICU and/or death) amongst all cases, by age, time of infection, and vaccination

			%	cases with sev (ICU and/or		es			
Age-group (years)	Jan 2020 - 15 Jun 2021		16 Jun - 20 Nov 2021: Fully vaccinated		16 Jun – 20 Nov 2021: Un-vaccinated				
0-9	0%	(0/	251)			-	<1%	(9/	12,187
10-19	<1%	(1/	325)	0%	(0/	137)	<1%	(27 /	9,487
20-29	<1%	(4/	1,115)	<1%	(2/	940)	1%	(98 /	9,692
30-39	1%	(15/	1,098)	<1%	(4/	1,285)	2%	(154/	7,709
40-49	2%	(12/	718)	<1%	(4/	1,198)	3%	(176/	5,298
50-59	4%	(30 /	710)	1%	(15/	1,078)	7%	(258 /	3,647
60-69	7%	(44 /	656)	2%	(17 /	768)	13%	(228 /	1,730
70-79	12%	(46 /	394)	6%	(33 /	532)	24%	(161/	683
80-89	21%	(26 /	122)	11%	(33 /	288)	36%	(126 /	349
90+	38%	(16/	42)	21%	(24 /	113)	45%	(28 /	62
Total	4%	(194 /	5,431)	2%	(132/	6,339)	2%	(1,265/	50,844

One 15 year old died with pneumococcal meningitis and COVID-19





https://www.nsw.gov.au/covid-19/stay-safe/rules

https://education.nsw.gov.au/covid-19/advice-for-families/vaccination-requirements-for-school-sites

https://education.nsw.gov.au/covid-19/advice-for-families
https://www.health.gov.au/resources/collections/covid-19-vaccination-daily-rollout-update

³ https://www.health.nsw.gov.au/Infectious/covid-19/Pages/weekly-reports.aspx ⁴ https://www.health.nsw.gov.au/Infectious/covid-19/Pages/weekly-reports.aspx

https://www.health.nsw.gov.au/Infectious/covid-19/Pages/weekly-reports.aspx

Canada

(population 38 million)

PHSM16 Schools & mitigation 17 Vaccination coverage 18 1st dose Fully vaccinated* Age group Standard PHSM including TTIQ and mask wearing encouraged in shared spaces and Re-opened in Sep 2021 Standard PHSM and additional measures subject to local advice (years) (%) (%) depending on local advice: physical distancing, 12+ 89.3 86.0 cohorting, masks when required, screening tests 82.7 12-17 87.6 Vaccination of 12y+ commenced mid-May 2021 *Canada also uses the J&J/Janssen vaccine which is a singledose vaccine. Third/booster doses have been available to high-risk individuals in phases since Sep 2021, coverage data not available. Infections by age group 19,20 Hospitalisations in children²¹ Deaths by age group²² Figure 3. COVID-19 cases (n=1,727,148 1) in Canada by date 2 as of November 26, 2021, 7 pm EST (by age -10 year groups -) 2 Figure 7. Age and gender ⁴ distribution of COVID-19 cases hospitalized 7 pm EST (n=91,895 ¹) Figure 7. Age and gender ⁴ distribution of COVID-19 cases deceased 7 pm EST (n=29,390 ¹) v in Canada as of November 26, 2021, in Canada as of November 26, 2021, Male Female Other 12-19 n = 8 (0.0%) 10,000 12,000 14,000 16,000 Number (Proportion (%)) Figure 6. Daily number of hospital beds and ICU beds occupied by COVID-19 patients as of November 29, 2021 There have been 19 deaths with COVID-19 in British Columbia (pop. 5.1 million): children aged 0-19y throughout the pandemic







https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/prevention-risks.html

¹⁷ https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/guidance-documents/planning-2021-2022-school-year-vaccination.html

https://health-infobase.canada.ca/covid-19/vaccination-coverage/

⁹ https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html

http://www.bccdc.ca/schools/news-resources/data-for-k12

https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html

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Denmark

PHSM²³

(population 5.9 million)

Previously all PHSM lifted on 8 Oct 2021, except for mask wearing in airports & hospitals

Schools & mitigation²⁴

Re-opened in May 2021

Standard PHSM; PCR or RAT screening tests: Recommended weekly for staff & students from grade 1 unless fully vaccinated or previously infected with COVID-19 in the last 12 months, twice weekly tests recommended for areas with high infection rates

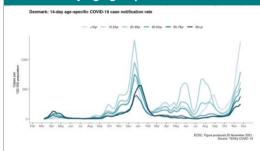
Vaccination coverage²⁵ 1st dose 2nd dose Age group

(years) (%) (%) 12+ 77.9 75.9

Commenced 3rd/booster vaccination for people 65+y in late Oct 2021 and for all adults from late Nov, coverage data not available.

Vaccination for 5-11y age group commenced late Nov 2021, coverage data not available.

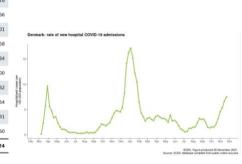
Infections by age group²⁶



Hospitalisations in children^{27,28}

hospitalised Comorbid.

group	cases	(%)	(%)	stay	females	males
Aldersgrupper	Bekræftede tilfælde	Indlagte i alt (%)	Heraf med komorbiditet (%)	Korte indlæggelser**	Indlagte kvinder	Indlagte mænd
0-9	50.037	408 (1)	87 (21)	188	190	218
10-19	84.839	378 (0)	112 (30)	139	212	166
20-29	93.713	1.291 (1)	500 (39)	474	790	501
30-39	68.128	1.816 (3)	735 (40)	635	1.058	758
40-49	69.170	2.278 (3)	1.027 (45)	679	1.114	1.164
50-59	58.210	3.062 (5)	1.716 (56)	654	1.362	1.700
60-69	32.010	2.960 (9)	2.050 (69)	413	1.198	1.762
70-79	20.447	4.054 (20)	3.387 (84)	353	1.690	2.364
80-89	8.563	3.207 (37)	2.811 (88)	259	1.576	1.631
90+	2.284	859 (38)	771 (90)	55	499	360
l alt	487.401	20.313 (4)	13.196 (65)	3849	9.689	10.624

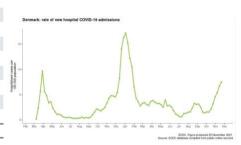


For the entire pandemic, a total of 33 children in ICU, which included 11 children with comorbidities

Graph is not available by age group

Total of 2912 in all age groups, but no age breakdown

Deaths by age group²⁹









²³ https://en.coronasmitte.dk/rules-and-regulations

https://en.coronasmitte.dk/rules-and-regulations

https://experience.arcgis.com/experience/9824b03b114244348ef0b10f69f490b4/page/page_3/

https://covid19-country-overviews.ecdc.europa.eu/countries/Denmark.html

https://www.sst.dk/da/corona/tal-og-overvaagning

https://covid19-country-overviews.ecdc.europa.eu/countries/Denmark.html

https://www.sst.dk/da/corona/tal-og-overvaagning

England, UK

PHSM³⁰

(population 56.6 million)

Standard PHSM including TTIQ and mandatory mask wearing in shops and on public transport

Previously most PHSM lifted until re-introduced in late Nov 2021

Schools & mitigation31

Re-opened after summer holiday in mid-Sep 2021 Standard PHSM, cohorting, mask wearing recommended for adults and students from year 7 onwards, twice-weekly RAT screening for staff and secondary school students, vaccination of 16-17y commenced mid-Aug & 12-15y commenced mid-Sep 2021 (single dose)

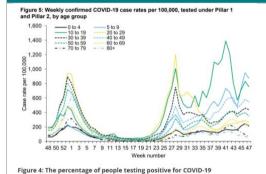
Close contacts who are fully vaccinated or under 18.5y and produce a negative PCR test result do not need to isolate

Vaccination coverage³²

(years)	1 st dose (%)	2 nd dose (%)	3 rd /booster (%)
12+	88.5	80.5	32.9
12-15	42.3	0.6	-
16-17	59.6	19.8	0.8
Third/booster	dose for $40v+$ and of	hor high-rick individu	als, commoneed Son

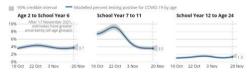
Third/booster dose for 40y+ and other high-risk individuals, commenced Sep 2021.

Infections by age group^{33,34}

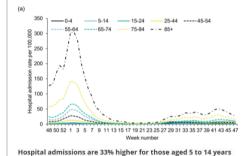


increased for those in school Year 12 up to age 34 years in the week ending 20 November 2021

Estimated daily percentage of the population testing positive for coronavirus (COVID-19) on nose and throat swabs by age group, England, 10 October to 20 November 2021

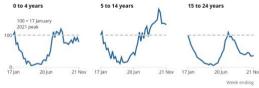


Hospitalisations in children^{35,36} Figure 43: Weekly hospital admission rate by age group for new (a) COVID-19 positive cases and (b) Influenza reported through SARI Watch



than in January 2021

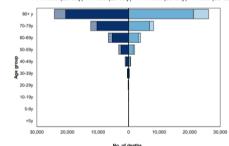
COVID-19-positive hospital admissions as a percentage of the rate during the January peak (rate in week ending 17 January = 100%), by age, England



Deaths by age group³⁷

Figure 55: Age-sex pyramid of laboratory confirmed COVID-19 deaths, for the past year

■Female (28 day) ■Male (28 day) □Female (60 day) ■Male (60 day)



Deaths with COVID-19 in the past year:

<5y: 13 5-9y: 8 10-19y: 49







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 $[\]frac{100}{100} \pm \frac{100}{100} + \frac{100}{100} \pm \frac{100}{100} \pm \frac{100}{100} + \frac{100}{100} \pm \frac{100}{100} \pm$

https://www.gov.uk/government/publications/actions-for-schools-during-the-coronavirus-outbreak/schools-covid-19-operational-guidance

³² https://coronavirus.data.gov.uk/details/vaccinations?areaType=nation&areaName=England

https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2021-to-2022-season

https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/previousReleases

https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2021-to-2022-season

https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronaviruscovid19latestinsights/hospitals

https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2021-to-2022-season

Finland

(population 5.5 million)

PHSM ³⁸	Schools & mitigation ³⁹	Vaccination coverage ^{40,41}			
Mask wearing encouraged in crowded areas, TTIQ, physical distancing, hand hygiene and respiratory etiquette	Many schools have reopened from Sep 2021 Standard PHSM, cohorting, masks, vaccination of 12y+ commenced early Aug 2021	Age group 1st dose 2nd dose 3rd/booster (years) (%) (%) (%) 12+ 86.8 81.9 6.0 12-15 75.0 64.8 0.2 16-19 81.8 73.3 0.3 Third/booster dose is recommended for females 12y+, males 30y+ and high-risk individuals.			
Infections by age group ⁴²	Hospitalisations in children ⁴³	Deaths by age group ⁴⁴			
Infections by age group (14-day average) Covid-19-tartuntojen ilmaantuvuus 14 päivän liukuvalla ajanjaksolla likäryhmittäin ja rokotusstatuksen mukaan 1000	Incidence of hospitalisation by age group (14-day average) Covid-19-tartunan vuoksi erikoissairaanhoitoon vuodeosastolle joutumisen Ilmaantuvuus 14 päivän ilukuvalla ajanjaksolla ikäryhmittäin rokotusstatuksen mukaan 0-11 12-19 20-29 30-39 40-49 50-59 10-01-01-01-01-01-01-01-01-01-01-01-01-0	Deaths by age group (for the whole period) 1,000 500 12 23 61 116 320 There have been 0 deaths in children throughout the entire pandemic			







¹⁸ https://thl.fi/en/web/infectious-diseases-and-vaccinations/what-s-new/coronavirus-covid-19-latest-updates/transmission-and-protection-coronavirus
19 https://thl.fi/en/web/thlfi-en/-/okm-and-thl-new-covid-19-recommendations-for-early-childhood-education-and-care-educational-institutions-and-higher-education-institutions
10 https://sampo.thl.fi/pivot/prod/en/vaccreg/cov19cov/summary_cov19ageareacov
11 https://www.hl.fi/piseuranta/rokotukset/koronarokotusten_edistyminen.html
12 https://tweb/infektiotaudit-ja-rokotukset/ajankohtaista/ajankohtaista-koronaviruksesta-covid-19/tilannekatsaus-koronaviruksesta/koronaviruksen-seuranta
13 https://tweb/infektiotaudit-ja-rokotukset/ajankohtaista-koronaviruksesta-covid-19/tilannekatsaus-koronaviruksesta/koronaviruksen-seuranta
14 https://experience.arcgis.com/experience/92e9bb33fac744c9a084381fc35aa3c7

Scotland, UK

(population 5.5 million)

PHSM ⁴⁵	Schools & mitigation ⁴⁶	Vaccination coverage ⁴⁷				
Mandatory masks indoors, TTIQ, screening tests, work from home encouraged	Re-opened after summer holiday in mid-Sep 2021 Standard PHSM, cohorting, mask wearing recommended for adults and students from year 7 onwards, twice-weekly RAT screening for staff and secondary school students, vaccination of 16-17y commenced mid-Aug & 12-15y commenced mid-Sep 2021 (single dose) Close contacts who are fully vaccinated or under 18.5y and produce a negative PCR test result do not need to isolate	Age group 1st dose 2nd dose 3rd/booster (years) (%) (%) (%) 12+ 90.9 82.6 36.7 12-15 59.0 1.6 0.3 16-17 77.7 21.5 1.4 Third/booster dose for 40y+ and other high-risk individuals, commenced Sep 2021.				
Infections by age group ⁴⁸	Hospitalisations in children ⁴⁹	Deaths by age	group ^{50,51}			
Figure 3: Seven day case rate in Scotland by age group by specimen date 6. Refers to PCR testing only 1600 88 1200 1200 1200 1200 1200 1200 1200 1200	Hospital admissions related to COVID-19 (3-week rolling average) **Download chart data** **Download chart data** **Age 51	350 300 250 200 150 00Z/80/60 00Z/80/60 Under 1 yea There have bee aged 0-14y three	en 3 deaths	1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,	12/11/60 12/11/	







⁶ https://www.gov.scot/coronavirus-covid-19/
6 https://www.gov.scot/coronavirus-covid-19/
6 https://www.gov.scot/collections/actions-for-schools-during-the-coronavirus-outbreak/schools-covid-19-operational-guidance
6 https://coronavirus.data.gov.uk/details/vaccinations?areaType=nation@areaName=Scotland
6 https://www.gov.scot/collections/coronavirus-covid-19-the-state-of-the-epidemic/
7 https://scotland.shinvapps.io/phs-covid19-education/ w 852/tb58e/
8 https://www.gov.scot/collections/coronavirus-covid-19-the-state-of-the-epidemic/
8 https://www.gov.scot/collections/colle

Singapore

PHSM⁵²

(population 5.5 million)

Restrictions re-introduced on 27 Sep 2021 after temporary easing Mandatory masks indoors & outdoors, TTIQ, work from home, shops open with maximum 5 people/group and digital check-in, maximum 5 guests at home

Fully vaccinated*: Social activities with maximum of 5 people/group

Not fully vaccinated: Social activities with reduced density limits

*including those who have recovered from COVID-19 or have a negative pre-event test result within 24 hours

Schools & mitigation⁵³

Re-opened in Jul 2021 with temporary home-based learning so exams could be undertaken without interruption; secondary schools continue to study onsite; phased return of primary schools from 11 Oct 2021

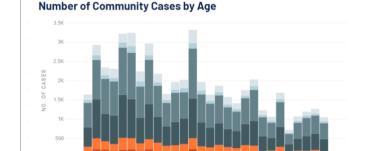
Standard PHSM, cohorting, RAT & temperature screening, mandatory masks 6y+ with exceptions, vaccination of 12y+ commenced early Jun 2021s

Vaccination coverage⁵⁴

Age group	1st dose	2 nd dose	3 rd /booster
(years)	(%)	(%)	(%)
12+	96.0	87.0	27.0

Third/booster dose for 30y+ and other high-risk individuals from Sep 2021.

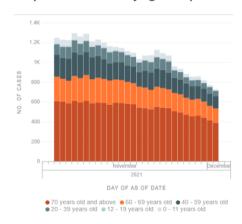
Infections by age group⁵⁵





Hospitalisations in children⁵⁶

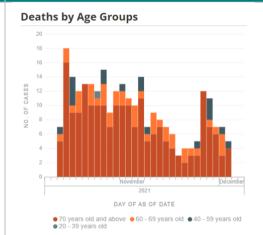
Hospitalised Patients by Age Groups



One child was admitted to ICU due to MIS-C

There have been five cases of MIS-C throughout the entire pandemic, last reported 8 Nov 2021

Deaths by age group⁵⁷



There have been 0 deaths in children throughout the entire pandemic







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https://www.moh.gov.sg/covid-19-phase-advisory

https://www.moe.gov.sg/faqs-covid-19-infection

https://www.moh.gov.sg/

https://www.moh.gov.sg/

https://www.moh.gov.sg/covid-19/statistics

https://www.moh.gov.sg/covid-19/statistics

USA

(population 332.8 million)

PHSM ⁵⁸	Schools & mitigation ⁵⁹	Vaccination coverage ^{60,61}				
Varies by state The US CDC recommends indoor mask wearing for all	Many schools have reopened from Sep 2021 Standard PHSM, cohorting, masks, PCR & RAT	Age group (years)	1 st dose (%)	Fully vaccinated* (%)	3 rd /booster (%)	
unvaccinated and aged 2y+, physical distancing, hand & surface	screening, vaccination commenced mid-May for 12+y	5-11	15.5	2.2	-	
hygiene, TTIQ, but adoption varies by State	and early Nov 2021 for 5-11y, but adoption varies by State	12-17	61.3	51.5	-	
		18+ 81.0 71.3 23.3 *Note: The US also uses the J&J/Janssen vaccine which is a single-dose vaccine. Third/booster dose for 65y+ and other high-risk individuals from Sep 2021, expanded to all 18y+ from late Nov 2021.				
Infections by age group ⁶²	MIS-C ⁶³	Deaths by ag	e group ^{64,65}			
COVID-19 Weekly Cases per 100,000 Population by Age Group, United States March 01, 2020 - December 04, 2021* Age Group 0 - 45 - 11515 - 272 - 39 - 5060 - 6465 - 7475 - 75	Daily MIS-C Cases and COVID-19 Cases Reported to CDC (7-Day Moving Average)		ch 01, 2020 - December 04, 2		1 15 17 29 39 49	
Hospitalisations in children ⁶⁶ Any admitted child who is COVID-19 positive is likely to be included, so this is likely an overestimation of the number of children needing treatment for COVID-19	There have been 5973 cases of MIS-C throughout the entire pandemic, including 52 deaths The median age of patients with MIS-C was 9y and half were between 5-13y	pandemic		m children 0-17y throughou		





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https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html
https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-guidance.html
https://covid.cdc.gov/covid-data-tracker/#vaccination-vacc-total-admin-rate-total
https://covid.cdc.gov/covid-data-tracker/#vaccination-demographics-trends
https://covid.cdc.gov/covid-data-tracker/#waccination-demographics-trends
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USA: Comparison of states

A comparison of select US states based on 7-day incidence per 100,000 population and PHSM

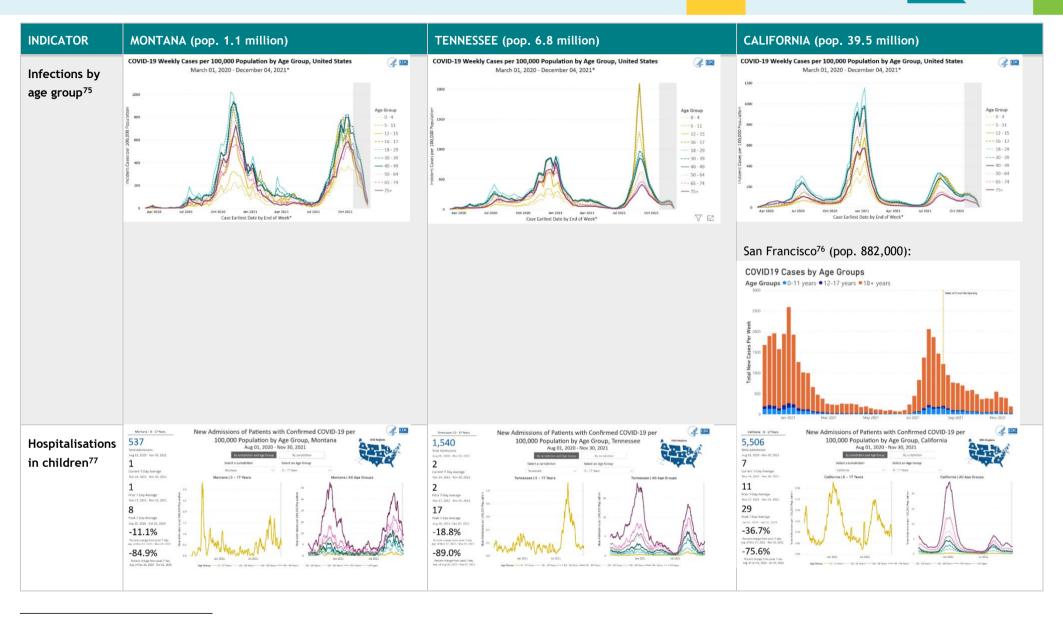
INDICATOR	MONTANA (pop. 1.1 million)			TENNESSEE (pop. 6.8 million)			CALIFORNIA (pop. 39.5 million)		
7-day incidence per 100,000 population ⁶⁷	179.2			127.8			74.2		
PHSM	Mask wearing encouraged, physical distancing, TTIQ ⁶⁸			Mask wearing encouraged, physical distancing, TTIQ ⁶⁹		Indoor mask wearing mandatory in many indoor venues for all aged 2+, TTIQ ⁷⁰			
Schools & mitigation	Schools reopened from Aug 2021 Standard PHSM as recommended by US CDC, school-based mask mandates with option for parents to optout, vaccination encouraged, vaccination of 12+y commenced mid-May 2021 ⁷¹		Schools reopened from Aug 2021 Standard PHSM as recommended by US CDC, mask wearing and vaccination encouraged, vaccination of 12+y commenced mid-May 2021 ⁷²			Schools reopened from Sep 2021 Standard PHSM as recommended by US CDC, mask wearing mandatory for all aged 2+, PCR & RAT screening, vaccination of 12+y commenced mid-May 2021, mandatory staff vaccination or weekly testing ⁷³			
Vaccination coverage ⁷⁴	Age group (years) 12-17 18-64 65+	1 st dose (%) 46.1 63.5 99.3	Fully vacc.* (%) 38.8 55.5 90.2	Age group (years) 12-17 18-64 65+	1st dose (%) 40.2 63.0 94.5	Fully vacc.* (%) 33.3 54.9 86.7	Age group (years) 12-17 18-64 65+	1st dose (%) 75.1 87.8 99.9	Fully vacc.* (%) 61.0 72.4 90.5
	*The US also uses the J&J/Janssen vaccine which is a single-dose vaccine. State-specific data on 3 rd /booster dose coverage not available.								







b https://covid.cdc.gov/covid-data-tracker/#cases_casesper100klast7days
https://covid19.mt.gov/index
https://covid19.tn.gov/prevention/
https://covid19.tn.gov/masks-and-ppe/
https://covid19.ca.gov/masks-and-ppe/
https://dphhs.mt.gov/publichealth/cdepi/diseases/CoronavirusMT/index
https://dphhs.mt.gov/publichealth/cdepi/diseases/CoronavirusMT/index
https://www.tn.gov/health/cedep/ncov/educational-resources.html
https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/K-12-Guidance-2021-22-School-Year.aspx
https://www.mayoclinic.org/coronavirus-covid-19/vaccine-tracker



https://covid.cdc.gov/covid-data-tracker/#demographicsovertime

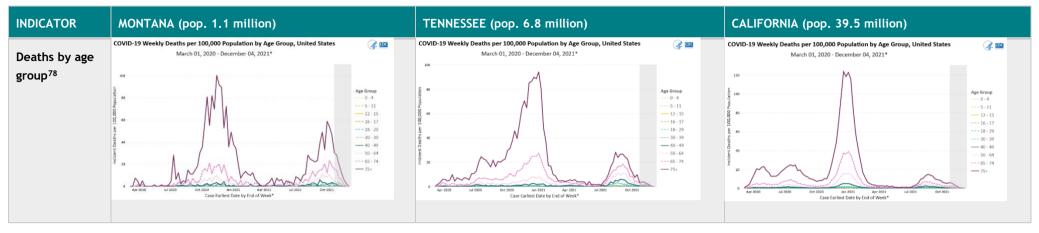






https://sf.gov/information/updated-data-covid-19-cases-among-san-francisco-children-and-schools https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions

COVID-19 and Children's Surveillance Report



Note: Comparative graphs may have different scales on the y-axis.



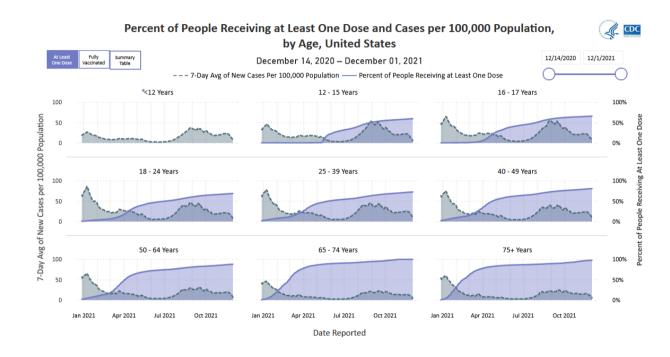




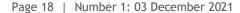
⁷⁸ https://covid.cdc.gov/covid-data-tracker/#demographicsovertime

USA: Impact of vaccination on disease incidence

Seven-day incidence per 100,000 population in people who received at least one dose of vaccine, by age group⁷⁹



⁷⁹ https://covid.cdc.gov/covid-data-tracker/#vaccinations-cases-trends











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