



COVID-19 and Children's Surveillance Report

Number 9

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Overview

- 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), otherwise known as Paediatric Inflammatory Multisystem Syndrome (PIMS-TS), is included where available.
- This report is updated weekly using the most recently available data from government websites. Excess mortality data is updated from EuroMOMO and Our World in Data.
- Surveillance data for the Omicron variant of concern is included for most countries in this report.
- The number of infections in both unvaccinated and vaccinated children may also increase if school mitigation measures are few, or 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. Vaccines generally have lower effectiveness against Omicron infection but are still highly effective against severe disease.



Summary

- Throughout 2021, the proportion of infections in unvaccinated children generally increased as vaccination of adults increased.^{1,2} Many countries are now vaccinating adolescents and others, including Australia, most European countries, Singapore and the USA, have begun vaccinating children aged 5 years and over.
- With the predominance of Omicron in many settings and with vaccines having lower effectiveness against infection for this variant, the age distribution of infection has changed again. Early reports from NSW, the UK and Denmark, regions which have intensive surveillance, indicate that transmission mainly occurred in 20-29 year olds initially, with infections in children and adolescents increasing as schools reopened after the end-of-year holidays, which in some settings is now declining.
- The Omicron variant of concern³ was first reported from South Africa on 25 November 2021. At the time of writing, it has been detected in 142 countries⁴, up from 131 countries in the last report. Omicron is now the predominant variant across many countries due to its high transmissibility, including in Australia, Canada, Denmark, the Netherlands, South Africa, the UK and USA. Subvariant BA.2 has replaced BA.1 as the predominant Omicron subvariant in several countries, including Denmark, the Netherlands and South Africa.
- COVID-19 epidemiology in children and adolescents varies by setting.
- There has been an increase in paediatric hospitalisations, more so in the 0-4 year old age group, but this has been a combination of admission for COVID-19 treatment and incidentally testing positive when admitted for an unrelated condition.⁵ Nevertheless, being a COVID-19 positive patient presents its own health care and workforce challenges.
- During the Omicron surge, the clinical manifestations in children have been similar to other common paediatric respiratory viral infections. Croup has been a common reason for admission in the 0-4 year age group.⁶ MIS-C has not increased in the USA despite a large increase in Omicron cases.⁷
- Victoria** closed schools for holidays from mid-December 2021 and they reopened in late January 2022. Early childhood centres have remained open.
 - Density limits have been reintroduced with work from home default and indoor mask wearing required for all aged 8 years and older.
 - Schools reopened with multi-layered mitigation strategies in place, including twice-weekly surveillance rapid antigen tests (RAT; for childcare, kindergartens and schools), mandatory third vaccine dose for staff, supply of air-purification devices and masks required for all staff and students grade 3 and above, and encouraged in younger students.
 - Approximately 50% of 5-11 year olds and 89% of 12-15 year olds have received at least one dose of a COVID-19 vaccine.
 - In the week following school reopening, 7046 students and 925 staff have been infected with COVID-19, accounting for 0.7% and 0.84% of all students and staff respectively.⁸
 - There is a downward trend of infections, with ~9000 confirmed cases per day in all ages.
 - Infections are highest in the 30-39 year age group followed by 20-29 years. Infections are declining in all age groups.
 - Since 8 January 2022, Victorian daily case numbers include both PCR and RAT positive results.
 - There is no hospitalisation data available by age, but overall numbers are declining.
 - Two children have died with COVID-19 throughout the entire pandemic.
- NSW** schools closed for holidays from mid-December 2021 and reopened in late January 2022. Early childhood centres have remained open.
 - Indoor mask wearing is required for all aged 12 years and older and recommended for children in primary school.
 - Schools reopened with multi-layered mitigation strategies in place, including twice-weekly surveillance RAT, mandatory third vaccine dose for staff, supply of air-purification devices, masks required for all staff and high school students (and encouraged for primary school children), and cohorting.
 - Approximately 43% of 5-11 year olds and 83% of 12-15 year olds have received at least one dose of vaccine.
 - In the week following school reopening, 2417 students and 617 staff have been infected with COVID-19. This accounts for ~0.2% of all students and <1% of school staff.⁹
 - Case numbers are on a downward trend, with currently ~9100 confirmed cases per day in all ages.
 - Infections are highest in the 16-39 year age group and lowest in the 0-4 year age group.
 - There is no data on hospitalisation trends by age, but overall hospitalisations have declining.

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. https://www.mcric.edu.au/sites/default/files/media/documents/covid-19_in_early_childhood_education_and_care_and_schools.pdf

² American Academy of Pediatrics (AAP). Children and COVID-19: State-Level Data Report 14 October 2021. Illinois, US: AAP; 2021. <https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/>

³ World Health Organization (WHO). Update on Omicron 28 November 2021. Geneva, Switzerland: WHO; 2021. <https://www.who.int/news/item/28-11-2021-update-on-omicron>

⁴ GISAID. Tracking of Variants. Munich, Germany: GISAID; 2022. <https://www.gisaid.org/hcov19-variants/>

⁵ New York State Department of Health. Pediatric COVID-19 Update 07 January 2022. New York, US: New York State Department of Health; 2022. https://www.health.ny.gov/press/releases/2022/docs/pediatric_covid-19_hospitalization_report_summary.pdf

⁶ Omicron drives record cases of child COVID hospitalisations. Financial Times. 17 January 2022. <https://www.ft.com/content/28be9d3f-0b12-4c33-bda9-1bf1375c0b7e>

⁷ Does Omicron hit kids harder? Scientists are trying to find out. Nature. 04 February 2022. <https://www.nature.com/articles/d41586-022-00309-x>

⁸ Morgan C. Free rapid tests for pre-school children as Victoria records 9785 new COVID-19 cases. The Age. 08 February 2022. <https://www.theage.com.au/national/victoria/victoria-records-9785-new-covid-19-cases-20-deaths-20220208-p59ukf.html>

⁹ Carroll L & McPhee S. Schools stay open as hundreds of staff, students test positive. The Sydney Morning Herald. 04 February 2022. <https://www.smh.com.au/national/nsw/schools-stay-open-as-hundreds-staff-and-students-test-positive-20220204-p59tvk.html>



- From late November 2021 to mid-January 2022, 13 children aged 0-9 years were admitted to ICU, and 5 unvaccinated and 5 fully vaccinated adolescents aged 10-19 years were admitted to ICU.
 - Two children have died with COVID-19 throughout the entire pandemic.
 - **In Europe and North America**, cases are on the rise across all age groups in many countries, although there is now a downward trend in several countries and regions, including the United Kingdom, Canada and several states in the USA.
 - **Canada** closed its schools for the holidays in December 2021 and they reopened in early to mid-January 2022.
 - Public Health and Social Measures (PHSM) vary by province.
 - Approximately 53% of 5-11 year olds and 88% of 12-17 year olds have received at least one dose of vaccine.
 - There was a steep increase in infections due to the Omicron variant, which overtook the Delta variant, but there is now a steep downward trend in all age groups.
 - There is no data on hospitalisation trends by age. Overall hospitalisations have increased in recent weeks and are currently high but stable.
 - There have been 29 deaths with COVID-19 in children aged 0-19 years throughout the entire pandemic.
 - **Denmark** closed its schools early for the end-of-year holidays and they reopened in early January 2022. Excess mortality in all age groups, continues to dramatically decline over the Omicron period.¹⁰
 - Restrictions introduced due to the Omicron wave were eased in mid-January 2022. From 1 February, all restrictions have been lifted.
 - Approximately 83% of the population aged 12+ have received at least one dose of vaccine. The 5-11 year old vaccination program commenced in late November 2021.
 - Total infection rates continue on a steep upward trend, although this is stabilising in the 50+ year age groups. Infection rates are now highest in children and adolescents, especially the 6-11 year age group.
 - Based on Danish data, Omicron subvariant BA.2 is estimated to be 30% more infectious than BA.1.¹¹
 - Denmark has one of the most intensive testing systems in the world.
 - Hospitalisations in children have remained relatively stable and very low, with a small increase in unvaccinated young children.
 - The increase in Omicron infections have not resulted in the number of hospitalisations, as seen with previous variants. Approximately 30-40% of all hospitalised patients with COVID-19 were not hospitalised due to COVID-19 but for other reasons.¹²
 - There have been three deaths with COVID-19 in children aged 0-19 years throughout the entire pandemic. Deaths are predominantly in those unvaccinated, or double vaccinated and aged 70 years and older.
 - **England** reopened its schools in early January 2022 following the end-of-year holidays. Excess mortality in all age groups, continues to dramatically decline over the Omicron period.¹³
 - Additional PHSM were reintroduced in late November 2021, including mask wearing in certain indoor venues, work from home default and proof of vaccination. RAT is available for all twice weekly. Masks are no longer required in most public spaces but are recommended.
 - Approximately 55% of 12-15 year olds and 67% of 16-17 year olds have received at least one dose of vaccine. Vaccination in 5-11 year olds is only recommended for immunocompromised children.
 - Infections across all age groups are on a downward trend.
 - Infection rates continue to be highest in the 5-19 year age group, although they are on a downward trend.
 - Overall hospitalisations in all ages are stabilising and on a downward trend since schools re-opened.
 - There was a steep increase in 0-4 year olds which is now declining. There is currently an increase in 5-14 year olds, but rates in children remain the lowest compared to all other age groups.
 - Hospitalisations include children who test positive, irrespective of the reason for admission, so is an overestimate of hospitalisations for treatment of COVID-19.
 - MIS-C cases are not increasing despite the large rise in Omicron cases.
 - There have been 83 deaths with COVID-19 in children aged 0-19 years in the past year.
 - **Finland** reopened its schools in early January 2022 following the end-of-year holidays. There are no restrictions on children's activities. Excess mortality in all age groups, continues to decline over the Omicron period.¹⁴

¹⁰ EuroMQMO. Graphs and maps. Copenhagen, Denmark: Statens Serum Institut (SSI); 2022. <https://www.euromomo.eu/graphs-and-maps>

¹¹ Statens Serum Institut (SSI). Risk assessment of Omicron BA.2. Copenhagen, Denmark: SSI; 2022. <https://en.ssi.dk/-/media/arkiv/subsites/covid19/risikovurderinger/2022/risk-assesment-of-omicron-ba2.pdf?la=en>

¹² Sundhedsstyrelsen [Danish Health Authority]. Statusrapport [Status report]. Copenhagen, Denmark: Sundhedsstyrelsen; 2022. <https://www.sst.dk/-/media/Udgivelser/2022/Statusrapport/Statusrapport-35.ashx>

¹³ EuroMQMO. Graphs and maps. Copenhagen, Denmark: Statens Serum Institut (SSI); 2022. <https://www.euromomo.eu/graphs-and-maps>

¹⁴ EuroMQMO. Graphs and maps. Copenhagen, Denmark: Statens Serum Institut (SSI); 2022. <https://www.euromomo.eu/graphs-and-maps>



- Additional restrictions were reintroduced in late December 2021, including indoor mask wearing, proof of vaccination, work from home default and density limits. Further restrictions were introduced in January 2022, including limits on household visitors, hospitality opening hours and access to public places. From February 2022, restrictions are being lifted gradually.
- Approximately 23% of 5-11 year olds and 79% of 12-17 year olds have received at least one dose of vaccine. All children aged 5-11 years are now offered vaccine.
- Infections remain high but are beginning to decrease in most age groups, except for those aged <15 years.
 - Infections are highest in the 12-19 year age group (data to Report #8, 31 January 2022).
- Overall hospitalisations continue to increase in all age groups but remains low in children. There are more hospitalisations in the unvaccinated compared with the vaccinated in all age groups, with the disparity most marked with each older age cohort (data to Report #8, 31 January 2022).
- There have been no deaths in anyone <30 years old throughout the entire pandemic.
- **The Netherlands** reopened its schools in early January 2022 following the end-of-year holidays. Excess mortality in all age groups declined over the Omicron period.¹⁵
 - Restrictions continue to be in place, including indoor mask wearing, work from home default, household visitor limits and density limits.
 - Approximately 69% of 12-17 year olds have received at least one dose of vaccine. All children aged 5-11 years are now offered vaccine.
 - Infections are declining in all age groups and are highest amongst 10-19 year olds.
 - During the week 24 - 30 January 2022, 51,458 people working in education or childcare were tested. 55.8% of those tests were positive. This percentage is slightly higher than the total of 53.9% of the 681,772 adults tested in the general adult population during the same week.¹⁶
 - Hospitalisations increased with Omicron but have since declined. There is now a slight upward trend amongst older age groups but remain lowest in children.
 - In the past year, children <18 years accounted for 1.5% of all hospital admissions with COVID-19, with the vast majority being adults.
 - The number of deaths with COVID-19 in children is not reported.
- **Scotland** reopened its schools in early January 2022 following the end-of-year holidays. Excess mortality in all age groups, declined over the Omicron period.¹⁷
 - Restrictions eased in late January 2022, including removal of density and household visitor limits. Hybrid work arrangements have been re-introduced, replacing the direction to work from home. Indoor mask wearing remains mandatory.
 - Approximately 69% of 12-15 year olds and 83% of 16-17 year olds have received at least one dose of vaccine. Vaccination in 5-11 year olds is recommended for immunocompromised children.
 - Infections across all age groups declined from the Omicron peak and are now stable, except in the 0-14 year age group which remained higher and is slowly stabilising.
 - Hospitalisations in children are at their peak but stabilising, primarily in the <1 year age group. Hospitalisations also include children who test positive, irrespective of the reason for admission, so is an overestimate of hospitalisations for treatment of COVID-19.
 - There have been three deaths due to COVID-19 in children aged 0-14 years in the past year.
- **Singapore** reopened its schools in early January 2022 following the end-of-year holidays.
 - Restrictions were reintroduced in late September 2021, including indoor and outdoor mask wearing, work from home default and density limits.
 - Approximately 92% of the entire population has received at least one dose of vaccine. All children aged 5-11 years are now offered vaccine.
 - Currently there is an upward trend in overall infections with ~9500 cases per day, primarily in the 20-39 year age group.
 - Overall hospitalisations are increasing, although admissions remain lowest in children.
 - A total of five cases of MIS-C have been reported (up to 8 November 2021), all from the Delta wave in mid-late 2021. There has been one ICU admission due to MIS-C.
 - There have been no deaths in children throughout the entire pandemic.
- **South Africa** reopened its schools in early January 2022 following the end-of-year holidays. Excess mortality in all age groups, continues to dramatically decline over the Omicron period.¹⁸
 - Certain restrictions such as the curfew and density limits were eased in late December 2021.
 - Approximately 47% of the entire population is fully vaccinated. Vaccination is not offered to children aged 5-11 years.
 - There was a rapid increase in infections due to Omicron in all age groups but this has rapidly decreased, with children <19 years having the lowest infection rates.
 - Omicron subvariant BA.2 is now responsible for ~75% of all infections.

¹⁵ EuroMOMO. Graphs and maps. Copenhagen, Denmark: Statens Serum Institut (SSI); 2022. <https://www.euromomo.eu/graphs-and-maps>

¹⁶ RIVM. Research results from GGD data about children and COVID-19. Amsterdam, The Netherlands: National Institute for Public Health and the Environment; 2022. <https://www.rivm.nl/en/coronavirus-covid-19/children-and-covid-19/research-results-ggd-data>

¹⁷ EuroMOMO. Graphs and maps. Copenhagen, Denmark: Statens Serum Institut (SSI); 2022. <https://www.euromomo.eu/graphs-and-maps>

¹⁸ Our World in Data. Excess mortality during the Coronavirus pandemic (COVID-19). London, United Kingdom: Global Change Data Lab; 2022. <https://ourworldindata.org/excess-mortality-covid>



- Overall hospitalisations continue to decrease. However, many admissions were incidental (admitted for other reasons and subsequently test positive).
- There have been 808 deaths with COVID-19 in children aged 0-19 years throughout the entire pandemic. This accounts for <1% of all COVID-19 deaths in the country.
- In the **United States**, schools have reopened in many States following the end-of-year holidays. Excess mortality in all age groups, continues to dramatically decline over the Omicron period.¹⁹
 - The US Centres for Disease Control and Prevention (CDC) recommend multi-layered PHSM, but adoption varies by State and Territory.
 - Approximately 31% of 5-11 year olds and 67% of 12-17 year olds have received at least one dose of vaccine.
 - Infections remain high but are on a downward trend overall. Infections are highest in the 18-39 year age group.
 - Hospitalisations are decreasing in all age groups.
 - During the Omicron surge, the incidence of croup nearly doubled compared to the rate in prior months, consistent with prior case reports.²⁰
 - There have been 770 deaths with COVID-19 in children aged 0-17 years throughout the entire pandemic. This accounts for <0.1% of all COVID-19 deaths in the country.
 - Texas has had the highest number of child deaths (124) and there are three States that have reported 0 deaths throughout the entire pandemic.²¹
 - A total of 6851 cases of MIS-C have been reported, including 59 deaths.
 - There does not appear to be an increase in MIS-C despite the surge of Omicron cases so far but surveillance is ongoing.
 - Hospitalisations and deaths include all children who test positive, irrespective of the reason for admission or death, so is likely an overestimate of hospitalisations and deaths due to COVID-19.

Summary of COVID-19 epidemiology in children and adolescents

Country	Cases	Hospitalisations	MIS-C/PIMS-TS	Deaths [^]
VIC, Australia	↓	Not available	Not reported	2 ^b
NSW, Australia	↓	↑*	Not reported	2 ^b
Canada	↓	Stable	Not reported	29 ^b
Denmark	↑	Stable	Not reported	3 ^b
England, UK	↓	↓	Not reported	83 ^{b, #}
Finland	↓	↑*	Not reported	0
Netherlands	↓	↑	Not reported	Not reported
Scotland, UK	↓	Stable	Not reported	3 ^{a, #}
Singapore	↑	↑	5 cases	0
South Africa	↓	↓*	Not reported	808 ^b
USA	↓	↓	6851 cases	770 ^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. [#]In the past year.

¹⁹ Our World in Data. Excess mortality during the Coronavirus pandemic (COVID-19). London, United Kingdom: Global Change Data Lab; 2022. <https://ourworldindata.org/excess-mortality-covid>
²⁰ Tunc et al. Pediatric croup during the COVID-19 Omicron variant surge. medRxiv [Preprint]. 2022. <https://www.medrxiv.org/content/10.1101/2022.02.02.22270222v1>
²¹ American Academy of Pediatrics (AAP). Children and COVID-19: State-Level Data Report 30 December 2021. Illinois, US: AAP; 2021. <https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/>



List of abbreviations

Abbreviation	Term
CDC	US Centres for Disease Control and Prevention
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)

<p>PHSM²²</p> <p>Indoor mask-wearing required for all aged 8+, all shops open, TTIQ, QR check-in, proof of vaccination to attend some premises.</p> <p>From Jan 2022, density limits reintroduced and work from home default. A positive RAT result is reported as a “probable” COVID-19 case (treated as a PCR positive case and reported in daily case numbers). Certain essential workers can be exempt from close contact home isolation requirements to attend work.</p>	<p>Schools & mitigation²³</p> <p>Closed for holidays from mid-Dec 2021 and returned to school in late Jan 2022.</p> <p>Multi-layered mitigation strategies have been introduced, including twice-weekly surveillance RAT (childcare, kindergarten and schools), mandatory third vaccine dose for staff, supply of air-purification devices, masks required for all staff and students grade 3 and above. Remote learning will be considered as a localised, short-term last resort.</p>	<p>Vaccination coverage^{24,25}</p> <table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1st dose (%)</th> <th>2nd dose (%)</th> <th>3rd/booster (%)</th> </tr> </thead> <tbody> <tr> <td>5-11</td> <td>49.5</td> <td>0.2</td> <td>-</td> </tr> <tr> <td>12-15</td> <td>89.3</td> <td>84.6</td> <td>-</td> </tr> <tr> <td>16+</td> <td>94.4</td> <td>93.0</td> <td>-</td> </tr> <tr> <td>18+</td> <td>-</td> <td>-</td> <td>46.0</td> </tr> </tbody> </table> <p>Fourth dose for immunocompromised recommended from early Jan 2022, booster dose available to all eligible adults aged 18y+ and 16-17y from 3 Feb 2022. Three primary dose recommendation extended to all severely immunocompromised people aged 5y+ from mid-Jan 2022. Vaccination for 5-11y available from 10 Jan 2022.</p>	Age group (years)	1 st dose (%)	2 nd dose (%)	3 rd /booster (%)	5-11	49.5	0.2	-	12-15	89.3	84.6	-	16+	94.4	93.0	-	18+	-	-	46.0																															
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<p>Infections by age group²⁶</p> <p>Daily new cases (to 06/02/2022)</p> <p>From 8 Jan 2022, daily numbers include both PCR and RAT positive cases.</p>	<p>Hospitalisations in children²⁷</p> <table border="1"> <tr> <td>Current cases in hospital</td> <td>638 <small>cases in hospital</small></td> <td>43 <small>cases in ICU</small></td> </tr> </table> <p>No age breakdown</p>	Current cases in hospital	638 <small>cases in hospital</small>	43 <small>cases in ICU</small>	<p>Deaths by age group²⁸</p> <p>People who have passed away with COVID-19</p> <p>07/02/2022</p> <table border="1"> <thead> <tr> <th>Age group</th> <th>Male</th> <th>Female</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>00-09</td> <td>0</td> <td>1</td> <td>1</td> </tr> <tr> <td>10-19</td> <td>0</td> <td>1</td> <td>1</td> </tr> <tr> <td>20-29</td> <td>2</td> <td>1</td> <td>3</td> </tr> <tr> <td>30-39</td> <td>10</td> <td>1</td> <td>11</td> </tr> <tr> <td>40-49</td> <td>15</td> <td>11</td> <td>26</td> </tr> <tr> <td>50-59</td> <td>52</td> <td>35</td> <td>87</td> </tr> <tr> <td>60-69</td> <td>105</td> <td>53</td> <td>158</td> </tr> <tr> <td>70-79</td> <td>297</td> <td>170</td> <td>468</td> </tr> <tr> <td>80-89</td> <td>458</td> <td>361</td> <td>819</td> </tr> <tr> <td>90+</td> <td>252</td> <td>348</td> <td>602</td> </tr> <tr> <td>Total</td> <td>1386</td> <td>962</td> <td>2178</td> </tr> </tbody> </table> <p>Two children have died with COVID-19 throughout the pandemic, including one 15 year old and one child under 10 with multiple underlying conditions and in palliative care.</p>	Age group	Male	Female	Total	00-09	0	1	1	10-19	0	1	1	20-29	2	1	3	30-39	10	1	11	40-49	15	11	26	50-59	52	35	87	60-69	105	53	158	70-79	297	170	468	80-89	458	361	819	90+	252	348	602	Total	1386	962	2178
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²² <https://www.coronavirus.vic.gov.au/coronavirus-covidsafe-settings>
²³ <https://www.coronavirus.vic.gov.au/education-information-about-coronavirus-covid-19>
²⁴ <https://www.health.gov.au/resources/collections/covid-19-vaccination-daily-rollout-update>
²⁵ <https://twitter.com/VicGovDH>
²⁶ Data from: <https://www.coronavirus.vic.gov.au/victorian-coronavirus-covid-19-data>
²⁷ <https://www.coronavirus.vic.gov.au/victorian-coronavirus-covid-19-data>
²⁸ <https://www.coronavirus.vic.gov.au/additional-covid-19-case-data#cases-in-hospital>





Australia: New South Wales (population 8.2 million)

PHSM ²⁹	Schools & mitigation ³⁰	Vaccination coverage ^{31, 32}																																																																																																																																																								
Mandatory masks indoors and on public transport for all aged 12+, TTIQ, QR check-in, all shops open, proof of vaccination to attend some premises. Certain essential workers can be exempt from close contact home isolation requirements to attend work.	Closed for holidays from mid-Dec 2021 and returned to school in late Jan 2022. Multi-layered mitigation strategies have been introduced, including twice-weekly surveillance RAT, mandatory third vaccine dose for staff, supply of air-purification devices, masks required for all staff and high school students, cohorting.	<table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1st dose (%)</th> <th>2nd dose (%)</th> <th>3rd/booster (%)</th> </tr> </thead> <tbody> <tr> <td>5-11</td> <td>43.2</td> <td>0.3</td> <td>-</td> </tr> <tr> <td>12-15</td> <td>83.4</td> <td>78.6</td> <td>-</td> </tr> <tr> <td>16+</td> <td>95.5</td> <td>94.1</td> <td>44.0</td> </tr> </tbody> </table> <p>Fourth dose for immunocompromised recommended from early Jan 2021, booster dose available to all eligible adults aged 18+ and 16-17y from 3 Feb 2022. Three primary dose recommendation extended to all severely immunocompromised people aged 5+ from mid-Jan 2022. Vaccination for 5-11y available from 10 Jan 2022.</p>	Age group (years)	1 st dose (%)	2 nd dose (%)	3 rd /booster (%)	5-11	43.2	0.3	-	12-15	83.4	78.6	-	16+	95.5	94.1	44.0																																																																																																																																								
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<p>Figure 2. Seven day backward rolling average of PCR confirmed COVID-19 cases rate per 100,000 population by age and notification date, NSW, from 26 November 2021 to 22 January 2022</p>	<p>Hospitalisations among people with PCR-confirmed COVID-19, by age group, NSW, 1 January 2020 to 22 January 2022</p> <table border="1"> <thead> <tr> <th rowspan="2">Age-group (years)</th> <th colspan="2">1 Jan 2020 – 15 Jun 2021</th> <th colspan="2">16 Jun – 25 Nov 2021</th> <th colspan="2">26 Nov 2021 – 22 Jan 2022</th> </tr> <tr> <th>Hospitalised</th> <th>Percentage of cases hospitalised</th> <th>Hospitalised</th> <th>Percentage of cases hospitalised</th> <th>Hospitalised</th> <th>Percentage of cases hospitalised</th> </tr> </thead> <tbody> <tr><td>0-9</td><td>5</td><td>2%</td><td>291</td><td>2%</td><td>371</td><td>1%</td></tr> <tr><td>10-19</td><td>8</td><td>2%</td><td>359</td><td>3%</td><td>262</td><td><1%</td></tr> <tr><td>20-29</td><td>22</td><td>2%</td><td>964</td><td>7%</td><td>855</td><td><1%</td></tr> <tr><td>30-39</td><td>41</td><td>4%</td><td>1,253</td><td>10%</td><td>934</td><td>1%</td></tr> <tr><td>40-49</td><td>39</td><td>5%</td><td>1,295</td><td>14%</td><td>662</td><td>1%</td></tr> <tr><td>50-59</td><td>59</td><td>8%</td><td>1,266</td><td>19%</td><td>780</td><td>1%</td></tr> <tr><td>60-69</td><td>84</td><td>13%</td><td>1,045</td><td>27%</td><td>1,115</td><td>3%</td></tr> <tr><td>70-79</td><td>67</td><td>17%</td><td>763</td><td>40%</td><td>1,447</td><td>7%</td></tr> <tr><td>80-89</td><td>40</td><td>33%</td><td>507</td><td>54%</td><td>1,416</td><td>18%</td></tr> <tr><td>90+</td><td>13</td><td>31%</td><td>129</td><td>54%</td><td>466</td><td>20%</td></tr> <tr><td>Total</td><td>378</td><td>7%</td><td>7,872</td><td>10%</td><td>8,308</td><td>1%</td></tr> </tbody> </table> <p>* There is often a delay between a person becoming ill with COVID-19 and subsequently requiring a hospitalisation or dying. Since 16 June 2021, the median time between onset and hospitalisation is 4 days and between onset and death is 12 days. Therefore hospitalisations and deaths are under-reported for the most recently notified cases.</p>	Age-group (years)	1 Jan 2020 – 15 Jun 2021		16 Jun – 25 Nov 2021		26 Nov 2021 – 22 Jan 2022		Hospitalised	Percentage of cases hospitalised	Hospitalised	Percentage of cases hospitalised	Hospitalised	Percentage of cases hospitalised	0-9	5	2%	291	2%	371	1%	10-19	8	2%	359	3%	262	<1%	20-29	22	2%	964	7%	855	<1%	30-39	41	4%	1,253	10%	934	1%	40-49	39	5%	1,295	14%	662	1%	50-59	59	8%	1,266	19%	780	1%	60-69	84	13%	1,045	27%	1,115	3%	70-79	67	17%	763	40%	1,447	7%	80-89	40	33%	507	54%	1,416	18%	90+	13	31%	129	54%	466	20%	Total	378	7%	7,872	10%	8,308	1%	<p>Table 7. Deaths following recent infection with COVID-19, by age group and location, 26 November 2021 to 22 January 2022</p> <table border="1"> <thead> <tr> <th rowspan="2">Age-group (years)</th> <th rowspan="2">Number of deaths</th> <th rowspan="2">Case fatality rate</th> <th colspan="2">Location of death</th> </tr> <tr> <th>Health care facility</th> <th>Aged care facility</th> </tr> </thead> <tbody> <tr><td>0-9</td><td>1</td><td><0.1%</td><td>0</td><td>0</td></tr> <tr><td>10-19</td><td>0</td><td>0%</td><td>0</td><td>0</td></tr> <tr><td>20-29</td><td>2</td><td><0.1%</td><td>2</td><td>0</td></tr> <tr><td>30-39</td><td>3</td><td><0.1%</td><td>2</td><td>0</td></tr> <tr><td>40-49</td><td>9</td><td><0.1%</td><td>7</td><td>0</td></tr> <tr><td>50-59</td><td>21</td><td><0.1%</td><td>18</td><td>0</td></tr> <tr><td>60-69</td><td>43</td><td>0.1%</td><td>38</td><td>0</td></tr> <tr><td>70-79</td><td>117</td><td>0.6%</td><td>104</td><td>12</td></tr> <tr><td>80-89</td><td>155</td><td>1.9%</td><td>130</td><td>23</td></tr> <tr><td>90+</td><td>85</td><td>3.6%</td><td>61</td><td>23</td></tr> <tr><td>Total</td><td>436</td><td>0.1%</td><td>362</td><td>58</td></tr> </tbody> </table>	Age-group (years)	Number of deaths	Case fatality rate	Location of death		Health care facility	Aged care facility	0-9	1	<0.1%	0	0	10-19	0	0%	0	0	20-29	2	<0.1%	2	0	30-39	3	<0.1%	2	0	40-49	9	<0.1%	7	0	50-59	21	<0.1%	18	0	60-69	43	0.1%	38	0	70-79	117	0.6%	104	12	80-89	155	1.9%	130	23	90+	85	3.6%	61	23	Total	436	0.1%	362	58
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²⁹ <https://www.nsw.gov.au/covid-19/stay-safe/rules>
³⁰ <https://education.nsw.gov.au/covid-19/advice-for-families>
³¹ <https://www.health.gov.au/resources/collections/covid-19-vaccination-daily-rollout-update>
³² <https://twitter.com/NSWHealth>
³³ <https://www.health.nsw.gov.au/Infectious/covid-19/Pages/weekly-reports.aspx>
³⁴ <https://www.health.nsw.gov.au/Infectious/covid-19/Pages/weekly-reports.aspx>
³⁵ <https://www.health.nsw.gov.au/Infectious/covid-19/Pages/weekly-reports.aspx>



Canada (population 38 million)

PHSM³⁶

Standard PHSM including TTIQ and mask wearing encouraged in shared spaces and subject to local advice.

Schools & mitigation³⁷

Closed for winter holidays in Dec 2021 and returned to school in mid-Jan 2022. Ontario resumed in-person learning following a brief switch to remote learning due to rising case numbers.

Standard PHSM and additional measures depending on local advice: physical distancing, cohorting, masks when required, screening tests. RATs provided to students in Ontario for return to in-person learning.

Vaccination coverage³⁸

Age group (years)	1 st dose (%)	Fully vacc.* (%)	3 rd /booster (%)
5-11	54.6	16.1	-
12-17	87.7	83.2	1.2
Total pop.	84.0	78.7	40.5

*Canada also uses the J&J/Janssen vaccine which is a single-dose vaccine.
Third/booster doses have been available to high-risk individuals in phases since Sep 2021. Vaccination of 12y+ commenced mid-May and 5-11y in mid-Nov 2021.

Infections by age group^{39, 40}

Figure 3: COVID-19 cases (n=3,050,668) in Canada by date as of February 4, 2022, 8 am EST (By age: 10 year groups).

Figure 5: Distribution of confirmed COVID-19 cases reported to PHAC by vaccination status as of January 15, 2022.

Vaccination status	Cases (%)	Hospitalizations (%)	Deaths (%)
Unvaccinated	52.3%	71.7%	30.3%
Current 1st dose	3.1%	5.1%	6.4%
Publicly vaccinated	4.2%	6.1%	6.5%
Fully vaccinated	39.5%	17.1%	56.8%

Hospitalisations in children⁴¹

Figure 7: Age and gender distribution of COVID-19 cases hospitalized in Canada as of February 4, 2022, 8 am EST (n=122,074).

Age group (years)	Number (Proportion %)
0-11	n = 2,245 (1.8%)
12-19	n = 1,272 (1.0%)
20-29	n = 5,800 (4.8%)
30-39	n = 5,199 (7.5%)
40-49	n = 10,792 (8.8%)
50-59	n = 16,504 (13.6%)
60-69	n = 21,167 (17.3%)
70-79	n = 23,708 (19.4%)
80+	n = 31,287 (25.6%)

Deaths by age group⁴²

Figure 7: Age and gender distribution of COVID-19 cases deceased in Canada as of February 4, 2022, 8 am EST (n=33,717).

Age group (years)	Number (Proportion %)
0-11	n = 19 (0.1%)
12-19	n = 10 (0.0%)
20-29	n = 99 (0.3%)
30-39	n = 243 (0.7%)
40-49	n = 549 (1.6%)
50-59	n = 1,507 (4.5%)
60-69	n = 3,570 (10.6%)
70-79	n = 7,136 (21.2%)
80+	n = 20,584 (61.0%)

British Columbia (pop. 5.1 million, data has not been updated since Report #8, 31 Jan 2022):

	Agnes 0-4	Agnes 5-11	Agnes 12-17
CASES			
new this report	3,660	4,916	3,283
new this school year	5,797	13,155	6,236
total cases	9,910	22,925	16,622
HOSPITALIZATIONS			
new this report	35	14	26
new this school year	83	43	51
ever hospitalized	305	80	85
CRITICAL CARE			
new this report	4	0	0
new this school year	8	4	5
new this year	10	6	12
new this report	0	0	0
new this school year	0	0	0
total deaths	2	0	0
DEATHS			
new this report	0	0	0
new this school year	0	0	0
total deaths	2	0	0
VACCINATIONS			
having 2 doses	48%	87%	87%
having 2 doses	Not eligible for vaccination	0%	83%

Figure 9: Case rate of COVID-19 by age and vaccination status, BC, July 1, 2021 to January 18, 2022.

British Columbia (pop. 5.1 million, data has not been updated since Report #8, 31 Jan 2022):

Figure 11: Daily hospital and critical care occupancy by pediatric age groups, 0-17 year-olds, BC, January 1, 2021 to January 18, 2022.

Genomic surveillance⁴³

Figure 11: Daily hospital and critical care occupancy by pediatric age groups, 0-17 year-olds, BC, January 1, 2021 to January 18, 2022.

Variant of concern	Percentage of samples sequenced
Alpha	1.8%
Beta	1.8%
Gamma	1.8%
Delta	32%
Epsilon	32%
Zeta	42%
Eta	1%
Theta	1%
Iota	1%
Kappa	1%
Lambda	1%
Mu	1%
Nu	1%
Xi	1%
Omicron	1%
Other variants	0.1%

³⁶ <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/prevention-risks.html>
³⁷ <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/guidance-documents/planning-2021-2022-school-year-vaccination.html>
³⁸ <https://health-infobase.canada.ca/covid-19/vaccination-coverage/>
³⁹ <https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html>
⁴⁰ <http://www.bccdc.ca/schools/news-resources/data-for-k12>
⁴¹ <https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html>
⁴² <https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html>
⁴³ <https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html>



Denmark

(population 5.9 million)

<p>PHSM⁴⁴</p> <p>Partial lockdown reinstated from 19 Dec 2021. Restrictions eased in mid-January 2022 including reopening of certain public venues.</p>	<p>Schools & mitigation⁴⁵</p> <p>Closed early for winter holidays in 2021 and returned to school in early Jan 2022.</p> <p>Standard PHSM, and 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 6 months, twice weekly tests recommended for areas with high infection rates).</p>	<p>Vaccination coverage⁴⁶</p> <table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1st dose (%)</th> <th>2nd dose (%)</th> <th>3rd/booster (%)</th> </tr> </thead> <tbody> <tr> <td>12+</td> <td>82.5</td> <td>80.9</td> <td>61.1</td> </tr> </tbody> </table> <p>Commenced 3rd/booster vaccination for people 65+ in late Oct and for all adults from late Nov 2021. Vaccination for 5-11y age group commenced late Nov 2021, coverage data not available.</p>	Age group (years)	1 st dose (%)	2 nd dose (%)	3 rd /booster (%)	12+	82.5	80.9	61.1
Age group (years)	1 st dose (%)	2 nd dose (%)	3 rd /booster (%)							
12+	82.5	80.9	61.1							
<p>Infections by age group^{47, 48}</p> <p>Weekly positive cases by age and vaccine status*</p> <p>Ugentligt antal positive opdelt på alder og vaccinstatus Relative og absolutte antal personer med positiv SARS-CoV-2 PCR test Viser kun ikke-tidligere positive.</p> <p>Omicron is now the predominant variant in Denmark (>90%).</p> <p>Number of school outbreaks by school level since return to school: Grades: 0-3, 4-6, 7-9, 10, 10+</p>	<p>Hospitalisations in children^{49, 50}</p> <p>Weekly admissions by age and vaccine status*</p> <p>Ugentligt antal indlæggelser opdelt på alder og vaccinstatus Relative og absolutte antal indlæggelser med positiv SARS-CoV-2 PCR test</p> <p>For the entire pandemic, a total of 82 children in ICU, which included 23 children with comorbidities.</p>	<p>Deaths by age group^{51, 52}</p> <p>Weekly deaths by age and vaccine status*</p> <p>Ugentligt antal døde opdelt på alder og vaccinstatus Relative og absolutte antal døde med positiv SARS-CoV-2 PCR test</p> <p>Total of 3 deaths with COVID-19 in children aged 0-19y throughout the pandemic.</p>								

*(1) Numbers per 100,000; (2) Absolute numbers
Yellow (unvaccinated), blue (two doses), green (three doses)

⁴⁴ <https://en.coronasmitte.dk/rules-and-regulations>
⁴⁵ <https://en.coronasmitte.dk/rules-and-regulations>
⁴⁶ https://experience.arcgis.com/experience/9824b03b114244348ef0b10f69f490b4/page/page_3/
⁴⁷ <https://covid19danmark.dk/>
⁴⁸ <https://covid19.ssi.dk/overvaagningsdata/ugentlige-opgorelser-med-overvaagningsdata>
⁴⁹ <https://covid19danmark.dk/>
⁵⁰ <https://covid19.ssi.dk/overvaagningsdata/ugentlige-opgorelser-med-overvaagningsdata>
⁵¹ <https://covid19danmark.dk/>
⁵² <https://covid19.ssi.dk/overvaagningsdata/ugentlige-opgorelser-med-overvaagningsdata>





England, UK

(population 56.6 million)

PHSM ⁵³	Schools & mitigation ⁵⁴	Vaccination coverage ⁵⁵																
<p>Standard PHSM including TTIQ and mandatory mask wearing indoors, work from home default, proof of vaccination/negative test required for certain venues; previously most PHSM lifted until re-introduced in late Nov 2021.</p>	<p>Closed for winter holidays in Dec 2021 and returned to school in early Jan 2022.</p> <p>Standard PHSM, cohorting, mask wearing required 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 (initially as single dose). Close contacts who are fully vaccinated or under 18.5y and produce a negative PCR test result do not need to isolate.</p>	<p>Age group</p> <table border="1"> <thead> <tr> <th>(years)</th> <th>1st dose (%)</th> <th>2nd dose (%)</th> <th>3rd/booster (%)</th> </tr> </thead> <tbody> <tr> <td>12+</td> <td>91.1</td> <td>84.3</td> <td>64.9</td> </tr> <tr> <td>12-15</td> <td>54.7</td> <td>19.5</td> <td>0.1</td> </tr> <tr> <td>16-17</td> <td>66.9</td> <td>48.0</td> <td>6.3</td> </tr> </tbody> </table> <p>Third/booster dose available for all 18y+ and other high-risk groups. Vaccination is recommended for children aged 5-11 years who are immunocompromised.</p>	(years)	1 st dose (%)	2 nd dose (%)	3 rd /booster (%)	12+	91.1	84.3	64.9	12-15	54.7	19.5	0.1	16-17	66.9	48.0	6.3
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Infections by age group ⁵⁶	Hospitalisations in children ^{57, 58}	Deaths by age group ⁵⁹																
<p>Figure 5: Weekly confirmed COVID-19 case rates per 100,000, by episode*, tested under Pillar 1 and Pillar 2, by age group</p>	<p>Figure 43: Weekly hospital admission rate by age group for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch</p>	<p>Figure 55: Age-sex pyramid of deaths within 28 or 60 days of a positive COVID-19 test, for the past year</p> <p>A total of 83 deaths with COVID-19 in the past year:</p> <ul style="list-style-type: none"> <5y: 17 5-9y: 7 10-19y: 59 																

⁵³ <https://www.gov.uk/guidance/covid-19-coronavirus-restrictions-what-you-can-and-cannot-do>
⁵⁴ <https://www.gov.uk/government/publications/actions-for-schools-during-the-coronavirus-outbreak/schools-covid-19-operational-guidance>
⁵⁵ <https://coronavirus.data.gov.uk/details/vaccinations?areaType=nation&areaName=England>
⁵⁶ <https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2021-to-2022-season>
⁵⁷ <https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2021-to-2022-season>
⁵⁸ <https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2021-to-2022-season>
⁵⁹ <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronaviruscovid19latestinsights/hospitals>
⁶⁰ <https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2021-to-2022-season>

Finland

(population 5.5 million)

PHSM ⁶⁰	Schools & mitigation ⁶¹	Vaccination coverage ⁶²																
<p>Restrictions reinstated in late Dec 2021, including mandatory indoor mask wearing, proof of vaccination to attend premises, work from home default and density limits. Additional restrictions in early Jan 2022 including limits on household visitors, hospitality opening hours and access to public places.</p>	<p>Schools closed for winter holiday in late Dec 2021 and reopened in early Jan 2022.</p> <p>Standard PHSM, cohorting, masks, ventilation, vaccination of 12y+ commenced early Aug & 5-11y in late Dec 2021.</p>	<table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1st dose (%)</th> <th>2nd dose (%)</th> <th>3rd/booster (%)</th> </tr> </thead> <tbody> <tr> <td>18+</td> <td>88.2</td> <td>85.5</td> <td>57.7</td> </tr> <tr> <td>5-11</td> <td>23.1</td> <td>0.1</td> <td>-</td> </tr> <tr> <td>12-17</td> <td>79.1</td> <td>72.4</td> <td>1.0</td> </tr> </tbody> </table> <p>Third/booster dose is recommended for all aged 18y+. Fourth dose recommended for 12y+ with severe immunodeficiency. Vaccine offered to 5-11y children from late Dec 2021.</p>	Age group (years)	1 st dose (%)	2 nd dose (%)	3 rd /booster (%)	18+	88.2	85.5	57.7	5-11	23.1	0.1	-	12-17	79.1	72.4	1.0
Age group (years)	1 st dose (%)	2 nd dose (%)	3 rd /booster (%)															
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Infections by age group ^{63,64}	Hospitalisations in children ⁶⁵	Deaths by age group ⁶⁶																
<p>Finland: 14-day age-specific COVID-19 case notification rate</p> <p>ECDC: Figure produced 3 February 2022. Source: ETSdy COVID-19</p> <p>Infections by age group (14-day average):</p> <p>Covid-19-tartuntojen ilmaantuvuus 14 päivän liukuvalia ajanjaksoilla ikäryhmittäin ja rokotusstatuksen mukaan</p> <p>thi</p> <p>Pink (unvaccinated) Dark blue (1 dose) Light blue (2 doses)</p> <p><i>Data has not been updated since Report #8, 31 Jan 2022</i></p>	<p>Hospitalisations by age group (14-day average):</p> <p>Covid-19-tartunnan vuoksi erikoissairaanholtoon vuodeosastolle joutumisen ilmaantuvuus 14 päivän liukuvalia ajanjaksoilla ikäryhmittäin rokotusstatuksen mukaan</p> <p>thi</p> <p>Pink (unvaccinated) Dark blue (1 dose) Light blue (2 doses)</p> <p><i>Data has not been updated since Report #8, 31 Jan 2022</i></p>	<p>Deaths by age group (for the whole period)</p> <p>There have been 0 deaths in children throughout the entire pandemic.</p> <p>Genomic surveillance⁶⁷</p> <p>Tartuntatautirekisterin kirjatut genettiset linjat</p> <p>thi</p> <p>Blue (Other virus lineage) <i>Data has not been updated since Report #8, 31 Jan 2022</i></p>																

⁶⁰ <https://valtioneuvosto.fi/en/information-on-coronavirus/current-restrictions>
⁶¹ <https://valtioneuvosto.fi/en/information-on-coronavirus/current-restrictions>
⁶² https://sampo.thi.fi/pivot/prod/en/vaccreg/cov19cov/summary_cov19ageareacov
⁶³ <https://thi.fi/fi/web/infektioaudit-ja-rokotukset/ajankohtaista/ajankohtaista-koronaviruksesta-covid-19/tilannekatsaus-koronaviruksesta/koronaviruksen-seuranta>
⁶⁴ <https://thi.fi/fi/web/infektioaudit-ja-rokotukset/ajankohtaista/ajankohtaista-koronaviruksesta-covid-19/tilannekatsaus-koronaviruksesta/koronaviruksen-seuranta>
⁶⁵ <https://covid19-country-overviews.ecdc.europa.eu/countries/Finland.html>
⁶⁶ <https://thi.fi/fi/web/infektioaudit-ja-rokotukset/ajankohtaista/ajankohtaista-koronaviruksesta-covid-19/tilannekatsaus-koronaviruksesta/koronaviruksen-seuranta>
⁶⁷ <https://experience.arcgis.com/experience/92e9bb33fac744c9a084381fc35aa3c7>
⁶⁸ <https://thi.fi/fi/web/infektioaudit-ja-rokotukset/ajankohtaista/ajankohtaista-koronaviruksesta-covid-19/tilannekatsaus-koronaviruksesta/koronaviruksen-seuranta>



Netherlands

(population 17.4 million)

<p>PHSM⁶⁸</p> <p>Work from home default, household visitor limits, recommendation to perform self-test before visiting others or public places, mask wearing required indoors, all public venues open with time and density limits, TTIQ.</p>	<p>Schools & mitigation⁶⁹</p> <p>Closed for winter holidays in late Dec 2021 and returned to school in early Jan 2022.</p> <p>Standard PHSM, mask wearing required for secondary school staff and students, twice-weekly RAT screening for staff and secondary school students, ventilation, quarantine arrangements based on case numbers within a cohort, vaccination of 12-17y commenced early July 2021 & 5-11y commenced mid-Jan 2022.</p>	<p>Vaccination coverage⁷⁰</p> <table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1st dose (%)</th> <th>Fully vacc. (%)</th> <th>3rd/booster (%)</th> </tr> </thead> <tbody> <tr> <td>12-17</td> <td>69.0</td> <td>67.0</td> <td>-</td> </tr> <tr> <td>18+</td> <td>-</td> <td>86.3</td> <td>59.4</td> </tr> </tbody> </table> <p>*Note: The Netherlands also uses the J&J/Janssen vaccine which is a single-dose vaccine. Third/booster dose available for all 18y+. Vaccination coverage data for children 5-11y is not available.</p>	Age group (years)	1 st dose (%)	Fully vacc. (%)	3 rd /booster (%)	12-17	69.0	67.0	-	18+	-	86.3	59.4						
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<p>Infections by age group⁷¹</p> <p>Source: RIVM</p>	<p>Hospitalisations in children^{72,73}</p> <p>Source: NICE via RIVM</p>	<p>Deaths by age group⁷⁴</p> <p>This value is larger than shown in the graph Value of Monday, 7 February - Source: RIVM</p>																		
<p>Genomic surveillance⁷⁵</p> <p>Hospital admissions</p> <p>If we look at all hospital admissions (81,070) reported by the IUCCE Foundation between 1 January 2021 and 1 February 2022, 1.0% (802) were younger than 4 years old, 0.2% (198) were aged 4-11 years and 0.3% (232) were aged 12-17 years. The vast majority (98.5% or 79,838) of all people admitted to hospital with COVID-19 were aged 18 years or older.</p> <table border="1"> <thead> <tr> <th>Age group Children</th> <th>Hospital admissions</th> <th></th> </tr> </thead> <tbody> <tr> <td><4</td> <td>802</td> <td>1.0%</td> </tr> <tr> <td>4-11</td> <td>198</td> <td>0.2%</td> </tr> <tr> <td>12-17</td> <td>232</td> <td>0.3%</td> </tr> <tr> <td>>17</td> <td>79838</td> <td>98.5%</td> </tr> <tr> <td>Total</td> <td>81070</td> <td>0</td> </tr> </tbody> </table>			Age group Children	Hospital admissions		<4	802	1.0%	4-11	198	0.2%	12-17	232	0.3%	>17	79838	98.5%	Total	81070	0
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⁶⁸ <https://www.government.nl/topics/coronavirus-covid-19/tackling-new-coronavirus-in-the-netherlands/coronavirus-measures-in-brief>
⁶⁹ <https://www.rivm.nl/en/coronavirus-covid-19/children-and-covid-19>
⁷⁰ <https://coronadashboard.government.nl/landelijk/vaccinaties>
⁷¹ <https://coronadashboard.government.nl/landelijk/positief-geteste-mensen>
⁷² <https://coronadashboard.government.nl/landelijk/ziekenhuis-opnames>
⁷³ <https://www.rivm.nl/en/coronavirus-covid-19/children-and-covid-19/research-results-ggd-data>
⁷⁴ <https://coronadashboard.government.nl/landelijk/sterfte>
⁷⁵ <https://www.rivm.nl/en/coronavirus-covid-19/virus/variants>



Scotland, UK

(population 5.5 million)

<p>PHSM⁷⁶</p> <p>Minimal restrictions before reinstated in Dec 2021, including mandatory masks indoors, density limits, recommendation to travel only for essential reasons, work from home default and proof of vaccination to attend premises.</p> <p>From 24 Jan 2022, restrictions eased including removal of density limits and household visitor limits. Hybrid work arrangements introduced.</p>	<p>Schools & mitigation⁷⁷</p> <p>Closed for winter holidays in late Dec 2021 and returned to school in early Jan 2022.</p> <p>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 (initially as single dose). Close contacts who are fully vaccinated or under 18.5y and produce a negative PCR test result do not need to isolate.</p>	<p>Vaccination coverage⁷⁸</p> <table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1st dose (%)</th> <th>2nd dose (%)</th> <th>3rd/booster (%)</th> </tr> </thead> <tbody> <tr> <td>12+</td> <td>92.5</td> <td>86.5</td> <td>69.4</td> </tr> <tr> <td>12-15</td> <td>69.2</td> <td>38.4</td> <td>0.9</td> </tr> <tr> <td>16-17</td> <td>83.0</td> <td>56.1</td> <td>10.5</td> </tr> </tbody> </table> <p>Third/booster dose available for all 18y+ and other high-risk groups. Vaccination is recommended for children aged 5-11 years who are immunocompromised.</p>	Age group (years)	1 st dose (%)	2 nd dose (%)	3 rd /booster (%)	12+	92.5	86.5	69.4	12-15	69.2	38.4	0.9	16-17	83.0	56.1	10.5
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<p>Infections by age group⁷⁹</p> <p>Figure 6: Weekly total combined PCR and LFD cases per 100,000 population in Scotland by age group, by reporting date⁷⁹. Data from 12 January to 2 February 2022.</p> <p>Omicron is responsible for >90% of cases in Scotland as of 10 Jan 2022.</p>	<p>Hospitalisations in children⁸⁰</p> <p>Hospital admissions related to COVID-19 (3-week rolling average)</p> <p>Any admitted child who is COVID-19 positive is included, so this overestimates the number of children being admitted and needing treatment for COVID-19.</p>	<p>Deaths by age group^{81, 82}</p> <p>Figure 11: Deaths by age group (weekly total by week beginning, NRS), data up to 23 January 2022</p> <p>There have been 3 deaths due to COVID-19 in children aged 0-14y in the past year.</p>																

⁷⁶ <https://www.gov.scot/coronavirus-covid-19/>
⁷⁷ <https://www.gov.uk/government/publications/actions-for-schools-during-the-coronavirus-outbreak/schools-covid-19-operational-guidance>
⁷⁸ <https://coronavirus.data.gov.uk/details/vaccinations?areaType=nation&areaName=Scotland>
⁷⁹ <https://www.gov.scot/collections/coronavirus-covid-19-the-state-of-the-epidemic/>
⁸⁰ https://scotland.shinyapps.io/phs-covid19-education/_w_852fb58e/
⁸¹ <https://www.gov.scot/collections/coronavirus-covid-19-the-state-of-the-epidemic/>
⁸² <https://www.nrsotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/general-publications/weekly-and-monthly-data-on-births-and-deaths/deaths-involving-coronavirus-covid-19-in-scotland>



Singapore

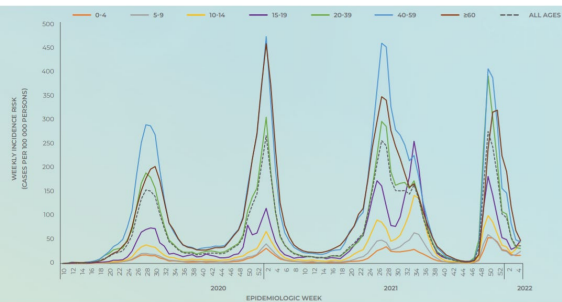
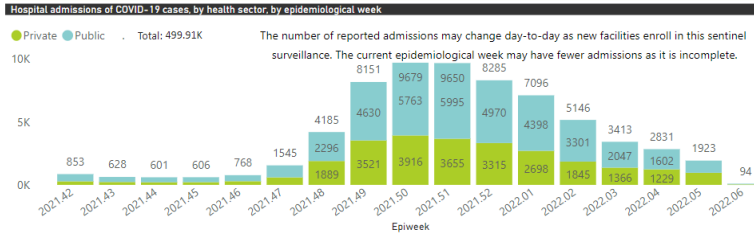
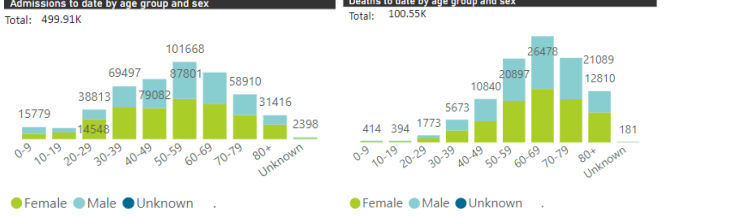
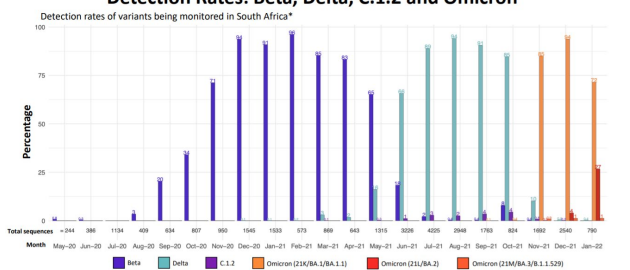
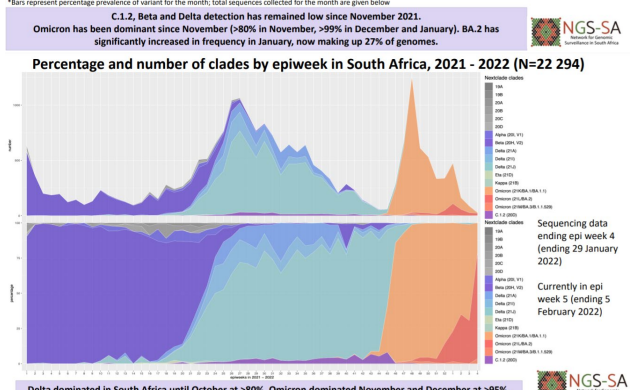
(population 5.5 million)

PHSM ⁸³	Schools & mitigation ⁸⁴	Vaccination coverage ⁸⁵								
<p>Restrictions re-introduced in late Sep 2021 after temporary easing.</p> <p>Mandatory masks indoors & outdoors, TTIQ, work from home, shops open with density limits and digital check-in, vaccination requirements to enter some premises, limits on guests at home.</p>	<p>Closed for end-of-year holidays in mid-Nov 2021 and returned to school in early Jan 2022.</p> <p>Standard PHSM, cohorting, RAT & temperature screening, mandatory masks 6y+ with exceptions, vaccination of 12y+ commenced early Jun 2021 and 5-11y in late Dec 2021.</p>	<table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1st dose (%)</th> <th>2nd dose (%)</th> <th>3rd/booster (%)</th> </tr> </thead> <tbody> <tr> <td>Total pop.</td> <td>92.0</td> <td>89.0</td> <td>60.0</td> </tr> </tbody> </table> <p>Third/booster dose available for all aged 18y+. From 14 Feb 2022, all 18y+ must receive a booster dose within 270 days of their 2nd dose to be considered fully vaccinated.</p>	Age group (years)	1 st dose (%)	2 nd dose (%)	3 rd /booster (%)	Total pop.	92.0	89.0	60.0
Age group (years)	1 st dose (%)	2 nd dose (%)	3 rd /booster (%)							
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Infections by age group ⁸⁶	Hospitalisations in children ⁸⁷	Deaths by age group ⁸⁸								
<p>Number of Local Cases by Age</p> <p>SOURCE: DATA.GOV.SG</p>	<p>Hospitalised Patients by Age Groups</p> <p>SOURCE: DATA.GOV.SG</p> <p>One child was admitted to ICU due to MIS-C for the entire pandemic.</p> <p>There have been five reported cases of MIS-C throughout the entire pandemic, last reported 8 Nov 2021.</p>	<p>Deaths by Age Groups</p> <p>SOURCE: DATA.GOV.SG</p> <p>There have been 0 deaths in children throughout the entire pandemic.</p>								

⁸³ <https://www.moh.gov.sg/covid-19-phase-advisory>
⁸⁴ <https://www.moe.gov.sg/faqs-covid-19-infection>
⁸⁵ <https://www.moh.gov.sg/>
⁸⁶ <https://www.moh.gov.sg/>
⁸⁷ <https://www.moh.gov.sg/>
⁸⁸ <https://www.moh.gov.sg/>

South Africa

(population 60.4 million)

<p>PHSM⁸⁹</p>	<p>Schools & mitigation^{90,91}</p>	<p>Vaccination coverage⁹²</p>
<p>Since 1 Oct 2021, restrictions including partial curfew, mandatory masks 6y+ with exceptions, density limits.</p> <p>Since 30 Dec 2021, lifting of certain restrictions including removal of curfew and increased density limits.</p>	<p>Closed for end-of-year holidays in mid-Dec 2021 and returned to school in early Jan 2022.</p> <p>Standard PHSM, ventilation, symptom screening, mandatory masks 6y+ with exceptions, visitor limits, vaccination of 12y+.</p>	<p>Age group (years) Fully vaccinated* (%)</p> <p>18+ 46.9</p> <p>*Note: South Africa also uses the J&J/Janssen vaccine which is a single-dose vaccine. Vaccination is available for all aged 12y+. Coverage data for 12-17y not available.</p>
<p>Infections by age group⁹³</p>	<p>Hospitalisations in children and deaths by age group⁹⁴</p>	<p>Genomic surveillance⁹⁵</p>
<p>Characteristics of COVID-19 cases in South Africa by age and sex</p>  <p>Figure 4. Weekly incidence risk of laboratory-confirmed cases of COVID-19 by age group in years and epidemiological week South Africa 3 March 2020 – 29 January 2022 (n = 3 569 858, 33 998 missing age)</p>	<p>Hospital admissions of COVID-19 cases, by health sector, by epidemiological week</p> <p>Private Public Total: 499,91K</p> <p>The number of reported admissions may change day-to-day as new facilities enroll in this sentinel surveillance. The current epidemiological week may have fewer admissions as it is incomplete.</p>  <p>Admissions to date by age group and sex Total: 499,91K</p> <p>Deaths to date by age group and sex Total: 100,55K</p>  <p>Total of 808 deaths with COVID-19 in children 0-19y throughout the entire pandemic. Deaths in children account for <1% of all deaths in South Africa.</p>	<p>Detection Rates: Beta, Delta, C.1.2 and Omicron</p> <p>Detection rates of variants being monitored in South Africa*</p>  <p>*Bars represent percentage prevalence of variant for the month, total sequences collected for the month are given below</p> <p>C.1.2, Beta and Delta detection has remained low since November 2021. Omicron has been dominant since November (>80% in November, >99% in December and January). BA.2 has significantly increased in frequency in January, now making up 27% of genomes.</p> <p>Percentage and number of clades by epiweek in South Africa, 2021 - 2022 (N=22 294)</p>  <p>Sequencing data ending epi week 4 (ending 29 January 2022)</p> <p>Currently in epi week 5 (ending 5 February 2022)</p> <p>Delta dominated in South Africa until October at >80%. Omicron dominated November and December at >95%.</p>

⁸⁹ <https://www.gov.za/covid-19/resources/regulations-and-guidelines-coronavirus-covid-19>
⁹⁰ <https://www.gov.za/covid-19/resources/regulations-and-guidelines-coronavirus-covid-19>
⁹¹ <https://saoronavirus.co.za/vaccine-updates/>
⁹² <https://saoronavirus.co.za/latest-vaccine-statistics/>
⁹³ <https://www.nicd.ac.za/diseases-a-z-index/disease-index-covid-19/surveillance-reports/weekly-epidemiological-brief/>
⁹⁴ <https://www.nicd.ac.za/diseases-a-z-index/disease-index-covid-19/surveillance-reports/daily-hospital-surveillance-datcov-report/>
⁹⁵ <https://www.nicd.ac.za/diseases-a-z-index/disease-index-covid-19/sars-cov-2-genomic-surveillance-update/>

USA

(population 332.8 million)

<p>PHSM⁹⁶</p> <p>The US CDC recommends indoor mask wearing for all unvaccinated and aged 2y+, physical distancing, hand & surface hygiene, TTIQ, but adoption varies by State/Territory.</p>	<p>Schools & mitigation⁹⁷</p> <p>Closed for winter holidays in late Dec 2021 and reopened from early Jan 2022.</p> <p>Standard PHSM, cohorting, masks, PCR & RAT screening, vaccination commenced mid-May for 12+y and early Nov 2021 for 5-11y, but adoption varies by State.</p>	<p>Vaccination coverage^{98,99}</p> <table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1st dose (%)</th> <th>Fully vaccinated* (%)</th> <th>3rd/booster (%)</th> </tr> </thead> <tbody> <tr> <td>5-11</td> <td>31.2</td> <td>22.9</td> <td>-</td> </tr> <tr> <td>12-17</td> <td>66.6</td> <td>56.4</td> <td>-</td> </tr> <tr> <td>18+</td> <td>87.2</td> <td>74.4</td> <td>45.5</td> </tr> </tbody> </table> <p>*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.</p>		Age group (years)	1 st dose (%)	Fully vaccinated* (%)	3 rd /booster (%)	5-11	31.2	22.9	-	12-17	66.6	56.4	-	18+	87.2	74.4	45.5
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<p>Infections by age group¹⁰⁰</p> <p>COVID-19 Weekly Cases per 100,000 Population by Age Group, United States March 01, 2020 - February 05, 2022*</p>	<p>MIS-C¹⁰¹</p> <p>Daily MIS-C Cases and COVID-19 Cases Reported to CDC (7-Day Moving Average)</p> <p>MIS-C Patients by Age Group</p>	<p>Deaths by age group^{102,103}</p> <p>COVID-19 Weekly Deaths per 100,000 Population by Age Group, United States March 01, 2020 - February 05, 2022*</p> <p>Total 770 deaths with COVID-19 in children 0-17y throughout the entire pandemic, accounting for <0.1% of all deaths in the US.</p> <p>There is marked variation by State/Territory and case fatality rates are between 0-0.01% for the vast majority of States and Territories¹⁰⁵: e.g. Texas (n=124); Arizona (n=59); California (n=51); Tennessee (n=32); Puerto Rico (n=9); Guam (n=5); Hawaii (n=1); Alaska (n=2).</p>	<p>Genomic surveillance¹⁰⁴</p> <table border="1"> <thead> <tr> <th>Variant</th> <th>US Class</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>Omicron</td> <td>B.1.1.529</td> <td>99.9%</td> </tr> <tr> <td>Delta</td> <td>B.1.617.2</td> <td>0.1%</td> </tr> <tr> <td>Other</td> <td>Other*</td> <td>0.0%</td> </tr> </tbody> </table>	Variant	US Class	%	Omicron	B.1.1.529	99.9%	Delta	B.1.617.2	0.1%	Other	Other*	0.0%				
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<p>Hospitalisations in children¹⁰⁶</p> <p>COVIDNET - Enter Network - 2020-21 - Weekly Rate</p> <p>Any admitted child who is COVID-19 positive is likely to be included, so this is likely to be an overestimation of the number of children needing treatment for COVID-19.</p>																			

⁹⁶ <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>
⁹⁷ <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-guidance.html>
⁹⁸ https://covid.cdc.gov/covid-data-tracker/#vaccinations_vacc-total-admin-rate-total
⁹⁹ <https://covid.cdc.gov/covid-data-tracker/#vaccination-demographics-trends>
¹⁰⁰ <https://covid.cdc.gov/covid-data-tracker/#demographicsovertime>
¹⁰¹ <https://covid.cdc.gov/covid-data-tracker/#mis-national-surveillance>
¹⁰² <https://covid.cdc.gov/covid-data-tracker/#demographicsovertime>
¹⁰³ https://www.cdc.gov/nchs/nvss/vsrr/covid_weekly/index.htm
¹⁰⁴ <https://covid.cdc.gov/covid-data-tracker/#variant-proportions>
¹⁰⁵ <https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/>
¹⁰⁶ https://gis.cdc.gov/grasp/COVIDNet/COVID19_3.html





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 ¹⁰⁷	1051			873			933		
PHSM	Mask wearing encouraged, physical distancing, TTIQ ¹⁰⁸			Mask wearing encouraged, physical distancing, TTIQ ¹⁰⁹			Indoor mask wearing mandatory in many indoor venues for all aged 2+, TTIQ ¹¹⁰		
Schools & mitigation	Closed in Dec 2021 for winter holidays, returned to school in early Jan 2022. Standard PHSM as recommended by US CDC, school-based mask mandates with option for parents to opt-out, vaccination encouraged, vaccination of 12+y commenced mid-May and 5-11y in early Nov 2021. ¹¹¹			Closed in Dec 2021 for winter holidays, returned to school in early Jan 2022. Standard PHSM as recommended by US CDC, mask wearing and vaccination encouraged, vaccination of 12+y commenced mid-May and 5-11y in early Nov 2021. ¹¹²			Closed in Dec 2021 for winter holidays, returned to school in early Jan 2022. Standard PHSM as recommended by US CDC, mask wearing mandatory for all aged 2+, PCR & RAT screening, vaccination of 12+y commenced mid-May and 5-11y in early Nov 2021, mandatory staff vaccination or weekly testing. ¹¹³		
Vaccination coverage ¹¹⁴	Age group (years)	1st dose (%)	Fully vacc.* (%)	Age group (years)	1st dose (%)	Fully vacc.* (%)	Age group (years)	1st dose (%)	Fully vacc.* (%)
	5-11	23.9	17.2	5-11	16.6	12.3	5-11	37.4	28.1
	12-17	49.8	42.2	12-17	43.9	36.8	12-17	79.0	68.7
	18-64	67.9	58.4	18-64	67.4	58.1	18-64	89.8	77.4
	65+	99.9	91.9	65+	97.2	88.7	65+	99.9	94.1
	*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.								

¹⁰⁷ https://covid.cdc.gov/covid-data-tracker/#cases_casesper100klast7days

¹⁰⁸ <https://covid19.mt.gov/index>

¹⁰⁹ <https://covid19.tn.gov/prevention/>

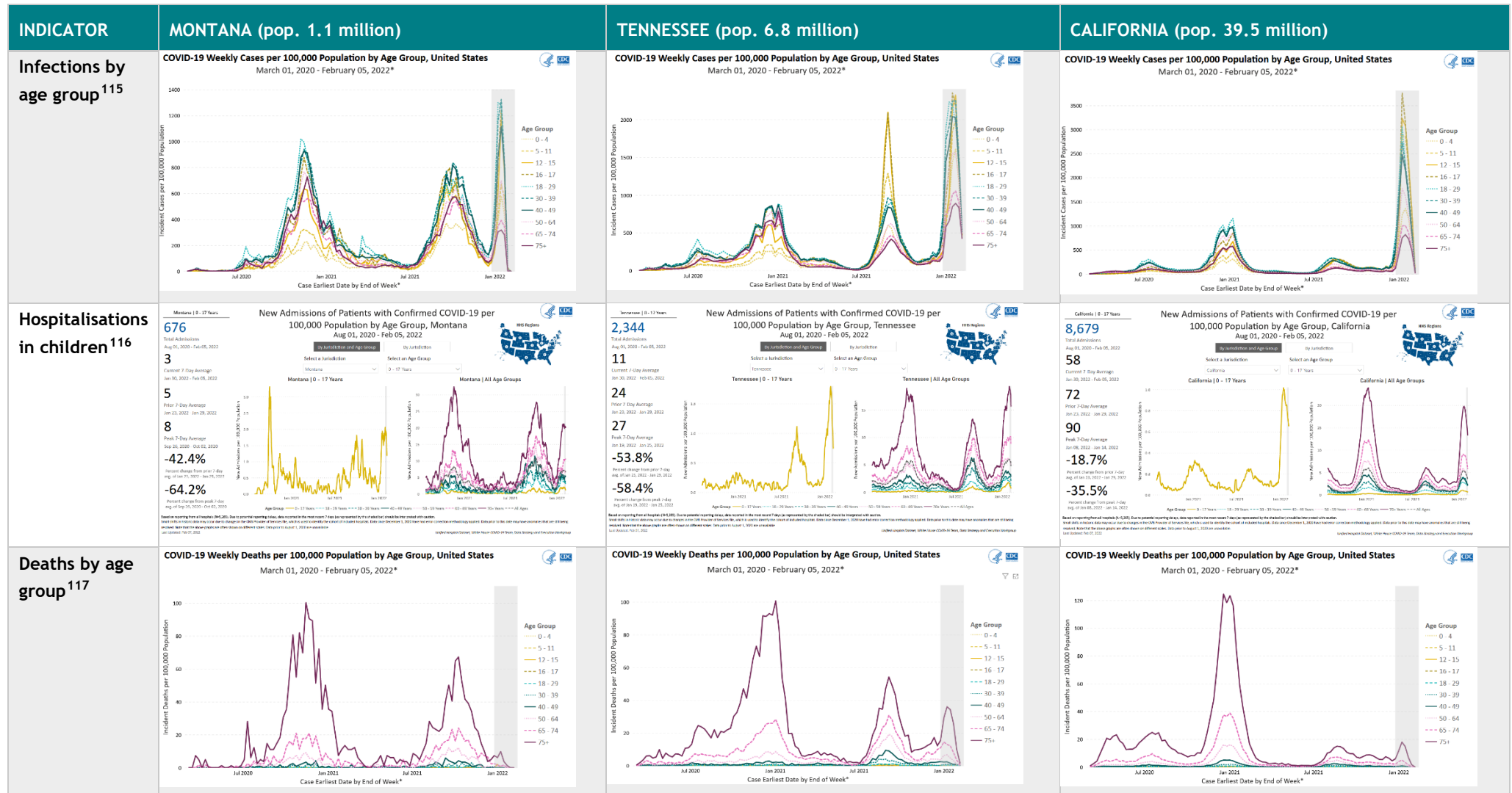
¹¹⁰ <https://covid19.ca.gov/masks-and-ppe/>

¹¹¹ <https://dphhs.mt.gov/publichealth/cdepi/diseases/CoronavirusMT/index>

¹¹² <https://www.tn.gov/health/cedep/ncov/educational-resources.html>

¹¹³ <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/K-12-Guidance-2021-22-School-Year.aspx>

¹¹⁴ <https://www.mayoclinic.org/coronavirus-covid-19/vaccine-tracker>



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

¹¹⁵ <https://covid.cdc.gov/covid-data-tracker/#demographicsovertime>
¹¹⁶ <https://covid.cdc.gov/covid-data-tracker/#new-hospital-admissions>
¹¹⁷ <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 group.¹¹⁸



Currently, children under age five are not eligible to be vaccinated.

Last Updated: Feb 05, 2022

Data source: VTricks, IIS, Federal Pharmacy Program, Federal Entities Program, U.S. Census Bureau 10-year July 2019 National Population Estimates; Visualization: CDC CPR DEO Situational Awareness Public Health Science Team

¹¹⁸ <https://covid.cdc.gov/covid-data-tracker/#vaccinations-cases-trends>



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