







# COVID-19 and Children's Surveillance Report

Number 14

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Aim	2
Methods	
Overview	2
Summary	
List of abbreviations	8
Australia: Victoria	9
Australia: New South Wales	10
Canada	
Denmark	12
England, UK	
Finland	
Netherlands	15
Scotland, UK	
Singapore	
South Africa	18
USA	19
USA: Impact of vaccination on disease incidence	20
Authors	21

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# **Aim**

- To provide a weekly summary on 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.

# **Methods**

- This report is updated weekly using the most recently available data from government websites.
- Excess mortality data is sourced from EuroMOMO and Our World in Data.

# Overview

- Caveat: The number of infections in both unvaccinated and vaccinated children 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.
- All countries included in this report are offering vaccination to primary school aged children and adolescents, except for South Africa. First dose coverage rates range from ~5-57% among 5-11 year olds and ~57-90% among 12-15 year olds.
- With the predominance of Omicron in many settings and with vaccines having lower effectiveness against infection for this variant, the age distribution of infection changed. 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 most settings have now declined.
- The Omicron variant of concern (BA.1)<sup>1</sup> has been detected in 175 countries<sup>2</sup> (up from 167 countries in the last report) and is the predominant variant worldwide due to its high transmissibility. Subvariant BA.2 has replaced BA.1 as the predominant Omicron subvariant in several regions, including NSW, Denmark, the Netherlands, South Africa and the UK.
- All countries in this report reopened schools during the Omicron period.
- School mitigation measures include rapid antigen testing (RAT) in many countries. Victoria had a mask mandate for year 3 onwards whereas NSW mandated masks for secondary school students. Both states removed school mask mandates in late February 2022, except for primary schools in Victoria. No Nordic countries have had mask mandates for children and several countries have never recommended masks for children. Finland has removed all restrictions on children and Denmark has lifted all restrictions since February 2022. The Netherlands and England are slowly lifting remaining restrictions. England does not have a mask mandate in most places including schools, whereas Scotland requires masks for specific circumstances in secondary schools. Singapore and South Africa require masks in schools.
- Following the peak in infections and reopening of schools in Victoria and NSW in February 2022, infections, hospitalisations, ICU admissions and deaths declined. This pattern was similarly observed after schools reopened in 2020 with the ancestral strain, and in 2021 with the Delta variant. Schools did not drive infections, as the peak of the BA.1 wave occurred during the school holidays and reflected broader community transmission.
- Some countries had an increase in cases in children and adolescents with schools reopening during the Omicron period, which mostly declined within a few weeks. Similarly, hospitalisations briefly increased in children, but this has been a combination of admission for COVID-19 treatment and incidentally testing positive when admitted for an unrelated condition.







<sup>&</sup>lt;sup>1</sup> World Health Organization (WHO). Update on Omicron 28 November 2021. Geneva, Switzerland: WHO; 2021. <a href="https://www.who.int/news/item/28-11-2021-update-on-omicron">https://www.who.int/news/item/28-11-2021-update-on-omicron</a> GISAID. Tracking of Variants. Munich, Germany: GISAID; 2022. <a href="https://www.gisaid.org/hcov19-variants/">https://www.gisaid.org/hcov19-variants/</a>

# COVID-19 and Children's Surveillance Report

- The increase in paediatric hospitalisations during the Omicron wave was seen more so in the 0-4 year old age group. In the USA, the rate of hospitalisations during the peak of the Omicron wave (first week of January 2022) was highest in children aged 0-4 years at 14.5 per 100.000 children (five times that of Delta peak of 2.9). Hospitalisation rates were lowest in the 5-11 year age group at approximately 3 per 100,000, which is the lowest of all age groups. The monthly hospitalisation rate of unvaccinated adolescents aged 12-17 years was six times higher than fully vaccinated adolescents (23.5 vs 3.8 per 100,000). Hospitalisations in children aged 0-4 years decreased by mid-February 2022 to 3.9 per 100,000. Recent data is not yet available for the 5-11 and 12-17 year age groups.<sup>5</sup>
- During the Omicron BA.1 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 as yet, despite a large increase in Omicron cases. 7 A UK study found that compared with the Alpha wave, there were fewer cases of MIS-C relative to SARS-CoV-2 infections during both the initial and subsequent Delta waves, and continuing into the Omicron wave despite extensive spread of BA.1.8 Seroprevalence surveys in the UK found that 97.6% of children aged 8-11 years have prior infection with SARS-CoV-2 by the third week of February 2022.9
- In Europe, there is no substantial increase in excess mortality in children aged 0-14 years during the Omicron period. 10
- There is no evidence that school re-opening during the Omicron BA.1 period (and BA.2 for Denmark) has increased community transmission or increased excess mortality in all ages. Where reported, excess mortality has declined, except for temporary increases in Denmark and the Netherlands which are now declining.







Pediatric COVID-19 update: 7 January 2022. New York, USA: New York State Department of Health; 2022. <a href="https://www.health.ny.gov/press/releases/2022/docs/pediatric\_covid-19\_hospitalization report\_summary.pdf">https://www.cdc.gov/mmwr/volumes/71/wr/mm7107e4.htm</a>
Marks KJ, Whitaker M, Anglin O, et al. Hospitalizations of children and adolescents with laboratory-confirmed COVID-19 - COVID-NET, 14 States, July 2021 - January 2022. MMWR. 2022:71(7);271-8. <a href="https://www.cdc.gov/mmwr/volumes/71/wr/mm7107e4.htm">https://www.cdc.gov/mmwr/volumes/71/wr/mm7107e4.htm</a>
Marks KJ, Whitaker M, Anglin O, et al. Hospitalizations of infants and children aged 0-4 years with laboratory-confirmed COVID-19 - COVID-NET, 14 States, March 2020 - February 2022. MMWR. 2022:71(11);429-36. <a href="https://www.cdc.gov/mmwr/volumes/71/wr/mm7111e2.htm?s-cid=mm7111e2\_w">https://www.cdc.gov/mmwr/volumes/71/wr/mm7107e4.htm</a>
Omicron drives record cases of child COVID hospitalizations. Financial Times. 17 January 2022. <a href="https://www.cdc.gov/mmwr/volumes/71/wr/mm7111e2.htm?s-cid=mm7111e2\_w">https://www.cdc.gov/mmwr/volumes/71/wr/mm7111e2.htm?s-cid=mm7111e2\_w</a>
Omicron drives record cases of child COVID hospitalizations. Financial Times. 17 January 2022. <a href="https://www.cdc.gov/mmwr/volumes/71/wr/mm7111e2.htm?s-cid=mm7111e2\_w">https://www.cdc.gov/mmwr/volumes/71/wr/mm7111e2.htm?s-cid=mm7111e2\_w</a>

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

<sup>6</sup> Cohen JM, Carter MJ, Cheung CR, et al. Lower risk of paediatric inflammatory multisystem syndrome (PIMS-TS) with the Delta variant of SARS-CoV-2 [Preprint], medRxiv. 2022, https://www.medrxiv.org/content/10.1101/2022.03.13.22272267v1

<sup>9</sup> Office for National Statistics (ONS). Coronavirus (COVID-19) antibody and vaccination data for the UK. London, United Kingdom: ONS; 2022. https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/dat

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

# **Summary**

- Victoria closed schools for holidays from mid-Dec 2021 and they reopened in late Jan 2022. Early childhood centres have remained open.
  - o Restrictions have eased further to remove density limits for hospitality, mandatory mask-wearing and advice to work from home in mid-Feb 2022.
  - Schools reopened with multi-layered mitigation strategies in place, including twice-weekly surveillance RATs (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. From late Feb 2022, masks are only required indoors in primary schools for all staff and students in grade 3 and above.
  - o Approximately 56% of 5-11 year olds and 90% of 12-15 year olds have received at least one dose of a COVID-19 vaccine.
  - From early Apr 2022, a second booster dose will be offered to all aged 65 years and older and high-risk groups, including Indigenous Australians 50 years and older, individuals living in aged or disability care and immunocompromised individuals aged 16 years and older.
  - o Case numbers are increasing, with currently ~9500 confirmed cases per day in all ages.
    - Infections are highest in the 30-39 year age group, followed by 20-29 year olds. One million children are offered RATs twice weekly, so children are tested more and therefore likely to be over-represented in case numbers and the percentage contribution to all infections, although testing compliance is not known and the daily breakdown by age for RATs is not available.
    - Since 8 Jan 2022, both PCR and RAT positive results are considered positive cases.
  - There is no hospitalisation data available by age, but overall numbers are stable.
  - o Two children have died with COVID-19 throughout the entire pandemic.
- NSW schools closed for holidays from mid-Dec 2021 and reopened in late Jan 2022. Early childhood centres have remained open.
  - o Restrictions eased further to remove mandatory mask-wearing and advice to work from home in mid Feb 2022.
  - 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, mask-wearing and cohorting. From late Feb and early Mar 2022, RATs are only used for symptomatic testing of students and staff (no longer for surveillance), masks are no longer required in most school settings and cohorting removed.
  - o Approximately 49% of 5-11 year olds and 84% of 12-15 year olds have received at least one dose of vaccine.
  - o From early Apr 2022, a second booster dose will be offered to all aged 65 years and older and high-risk groups, including Indigenous Australians 50 years and older, individuals living in aged or disability care and immunocompromised individuals aged 16 years and older.
  - Case numbers are increasing, with currently ~20,800 confirmed cases per day in all ages. Omicron subvariant BA.2 has become the predominant variant from the second week of Mar 2022.
    - Case data is up to 19 Mar 2022. Infections are highest in the 10-19 year age group and lowest in the 60+ year age group. Finer age breakdown is needed to understand if these are school aged children or 18-19 year olds (young adults). Children across the state were offered weekly RATs until the end of Feb 2022, they are likely to be overrepresented in case numbers and the percentage contribution to total infections due to increased testing.
  - o There is no data on hospitalisation trends by age, but overall hospitalisations are stable.
  - o Four children have died with COVID-19 throughout the entire pandemic.
- In **Europe and North America**, the downward trend continues in many countries and regions, although some regions are experiencing a new increase due to both an increase in Omicron subvariant BA.2, which is more transmissible, and the easing of restrictions.
- Canada closed its schools for the holidays in Dec 2021 and they reopened in early to mid-Jan 2022.
  - o Public Health and Social Measures (PHSM) vary by province.
  - Approximately 57% of 5-11 year olds and 88% of 12-17 year olds have received at least one dose of vaccine.
  - o There was an initial steep increase in infections due to the Omicron (BA.1) variant followed by a steep downward trend in all age groups. BA.2 is responsible for ~36% of cases.
  - o There is no data on hospitalisation trends by age. Overall hospitalisations had increased with Omicron but are now declining.
  - o There have been 34 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 Jan 2022. Excess mortality in all age groups dramatically declined over the Omicron period but slightly increased before decreasing and stabilising over the past month. 11







<sup>11</sup> EuroMOMO. Graphs and maps. Copenhagen, Denmark: Statens Serum Institut (SSI); 2022. https://www.euromomo.eu/graphs-and-maps

- o Restrictions introduced due to the Omicron BA.2 wave were eased in mid-Jan 2022. From 1 Feb, all restrictions have been lifted.
- Approximately 47% of 5-11 year olds and 82% of 12-15 year olds have received at least one dose of vaccine.
- o Total infection rates are stabilising in all age groups.
- o Hospitalisations in children have remained relatively stable and very low, with a small increase in unvaccinated young children.
- A total of 44 cases of MIS-C have been reported throughout the Omicron period (1 Nov 2021 to 1 Feb 2022).
  - Of the 44 cases, 40 were unvaccinated, 3 had received one dose and 1 had received two doses of vaccine. Twenty-nine (29) cases were between the ages of 5-11.
  - There was an increase in MIS-C cases in Nov and Dec 2021, attributed to the increase in Delta infections in Oct 2021.
  - The incidence of MIS-C was similar amongst previous SARS-CoV-2 variants, although this is not yet known for Omicron.
- There have been five deaths with COVID-19 in children aged 0-19 years throughout the entire pandemic. Deaths are predominantly in those unvaccinated, or those aged >70 years and especially in those aged >80 years.
- England reopened its schools in early Jan 2022 following the end-of-year holidays. Excess mortality in all age groups continues to dramatically decline over the Omicron period. 13
  - o Additional PHSM were reintroduced in late Nov 2021 which have been eased. Masks are no longer required in indoor places, including schools. RATs and PCR tests will no longer be free from Apr 2022, except for those aged 75 years and older, immunosuppressed individuals and health/social care workers with symptoms.
  - o Approximately 57% of 12-15 year olds and 68% of 16-17 year olds have received at least one dose of vaccine. Vaccination for 5-11 year olds commenced in late Feb 2022 but coverage data is not yet available.
  - o Infections across all age groups peaked in late Dec 2021 to early Jan 2022 with BA.1 and then decreased, but are now on an upward trend with subvariant BA.2 increasing.
    - Infection rates are highest in the 30-49 year age group and lowest in the 0-4 age group.
  - Overall hospitalisations remain stable, although there is now an increase in the 75+ year age group. Hospitalisations remain lowest in children 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. For children aged <4 years, about 70% are admitted for treatment of COVID-19. For children 5-19 years about 50% of the COVID-19 hospitalisations are incidental cases. 14</li>
  - o There have been 83 deaths with COVID-19 in children aged 0-19 years in the past year.
- Finland reopened its schools in early Jan 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. 15
  - Additional restrictions were reintroduced in late Dec 2021, including indoor mask wearing, proof of vaccination, work from home default and density limits. Further restrictions were introduced in Jan 2022, including limits on household visitors, hospitality opening hours and access to public places. From Feb 2022, restrictions are being lifted gradually. From early Mar 2022, advice to work from home was removed.
  - Approximately 26% of 5-11 year olds and 80% of 12-17 year olds have received at least one dose of vaccine.
  - o Infections are increasing and are highest in the 25-49, followed by the 15-24 year age groups. Infections in children <15 years continue to decline.
  - o There is no hospitalisation data available by age. Total hospitalisations are high but stabilising. Specialist care admissions remain low and stable in children.
  - $\circ\quad$  There have been no deaths in children throughout the entire pandemic.
- The Netherlands reopened its schools in early Jan 2022 following the end-of-year holidays. Excess mortality in all age groups declined over the Omicron period, with a temporary increase in late Feb 2022 and another current increase. 16
  - Some restrictions remain in place, including indoor mask wearing for certain venues and hybrid work arrangements. Masks are required for secondary school staff and student complemented with twice-weekly RAT screening. There is a gradual lifting of all remaining restrictions.
  - o Approximately 5% of 5-11 year olds and 69% of 12-17 year olds have received at least one dose of vaccine.
  - o Infections due to BA.1 were on a steep downward trend when restrictions eased, including removal of mask-wearing, until late Feb 2022. Subvariant BA.2 resulted in a steep upward trend over a few weeks, followed by a steep decline. Infections are highest amongst 10-19 year olds. There is an age-related increase in infection rates in children.
  - Hospitalisations increased with Omicron (BA.1 and BA.2) but have since declined. There is now an increase in the 70+ year age groups, especially in 90+ year olds, but rates remain stable and lowest in children.
    - In the past year, children <18 years accounted for 2.1% of all hospital admissions with COVID-19.







<sup>12</sup> EuroMOMO. Graphs and maps. Copenhagen, Denmark: Statens Serum Institut (SSI); 2022. https://www.euromomo.eu/graphs-and-maps

<sup>&</sup>lt;sup>13</sup> Sundhedsstyrelsen [Danish Health Authority]. Opdatering vedr. covid-19 vaccination af børn på 5-11 år [Update regarding COVID-19 vaccination of children aged 5-11 years]. Copenhagen, Denmark: Sundhedsstyrelsen; 2022. https://www.sst.dk/-/media/Udgivelser/2022/Corona/Vaccination/Notat-vaccination/notat-vaccination of children aged 5-11 years].

<sup>14</sup> UK Health Security Agency (UKHSA). Weekly influenza and COVID-19 surveillance graphs. London, United Kingdom: UKHSA; 2022. https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2021-to-2022-season
15 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

<sup>\*\*</sup> Our word in back, excess inordating during in economizing paraentic (COVID-19). London, office inground, Graphs and maps. Copenhagen, Denmark: Statens Serum Institut (SS); 2022. Https://www.eromomo.eu/graphs-and-maps.

- The number of deaths with COVID-19 in children is not reported.
- Scotland reopened its schools in early Jan 2022 following the end-of-year holidays. Excess mortality in all age groups continues to decline over the Omicron period. 17
  - Restrictions eased in late Jan 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 in most public places but school staff and students are no longer required to wear masks since late Feb 2022, except in indoor communal areas of secondary schools (e.g. corridors). Asymptomatic RATs continue to be encouraged and are provided free of charge. Similar to England, Scotland has plans to limit the provision of free RATs and PCR tests for most individuals in Apr 2022, including those who are symptomatic.
  - Approximately 68% of 12-15 year olds and 81% of 16-17 year olds have received at least one dose of vaccine. Vaccination for 5-11 year olds commenced in late Feb 2022 but coverage data is not yet available.
  - Infections across all age groups peaked in Jan 2022 and then decreased, but are now on an upward trend with BA.2.
    - o Infection rates are highest in the 40-49 year age group.
  - Hospitalisations in children temporarily decreased but are now increasing. For children, hospitalisations are highest in the <1 and 5-11 year age groups. 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 five deaths due to COVID-19 in children aged 0-14 years in the past year.
- **Singapore** reopened its schools in early Jan 2022 following the end-of-year holidays.
  - From late Mar 2022, some restrictions were eased including masks becoming mandatory indoors only, hybrid work arrangements, increased density limits in shops and vaccination requirements remaining in place. Masks remain mandatory in schools for all aged six years and older.
  - Approximately 93% of the entire population has received at least one dose of vaccine. All children aged 5-11 years are offered vaccine.
  - Following a peak in infections with BA.2, there is currently a downward trend with ~6600 cases per day, primarily in the 20-39 year age group.
  - Overall hospitalisations stabilised and are on a downward trend. Admissions remain lowest in children.
  - A total of five cases of MIS-C have been reported, all from the Delta wave in mid-late 2021. There has been one ICU admission due to MIS-C. However, Singapore has not released any further data on MIS-C since 8 Nov 2021.
  - There have been no deaths in children throughout the entire pandemic.
- South Africa reopened its schools in early Jan 2022 following the end-of-year holidays. Overall excess mortality declined over the Omicron period and is now close to baseline levels. 18
  - Certain restrictions such as the curfew and density limits were eased in late Dec 2021. Since Feb 2022, asymptomatic cases are not required to isolate while masks remain mandatory for all aged 6 years and older, including in schools.
  - Approximately 49% of the entire population is fully vaccinated. Vaccination is only offered to those aged 12 years and older.
  - There was a rapid increase in infections due to Omicron BA.1 in all age groups followed by a rapid decrease, with children under nine years currently having the lowest infection rates. Subvariant BA.2 is now more common than BA.1 but so far there has been no increase in case numbers.
  - Overall hospitalisations continue to decrease and many admissions were incidental (admitted for other reasons and subsequently test positive).
  - There have been 840 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 reopened following the end-of-year holidays. Excess mortality in all age groups declined over the Omicron period and stabilised. 19
  - The US Centres for Disease Control and Prevention (CDC) recommend multi-layered PHSM, but adoption varies by State and Territory.
  - Approximately 34% of 5-11 year olds and 68% of 12-17 year olds have received at least one dose of vaccine.
  - Infections remain on a downward trend. BA.2 accounts for ~35% of all cases.
  - Hospitalisations continue to decrease in all age groups.
    - During the Omicron wave (starting late Dec 2021), infants and children aged 0-4 years were hospitalised at approximately five times the rate of the previous peak during Delta variant predominance (14.5 vs 2.9 per 100,000), with infants aged <6 months having the highest rates of hospitalisation (68.1 vs 11.1 per 100,000), but indicators of severity did not differ by age group. 20
  - There have been 933 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 (127) and there are three States that have reported zero deaths throughout the entire pandemic. 21

<sup>21</sup> American Academy of Pediatrics (AAP). Children and COVID-19: State-Level Data Report. Illinois, US: AAP; 2021. https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/







TeuroMOMO. Graphs and maps. Copenhagen, Denmark: Statens Serum Institut (SSI); 2022. <a href="https://www.euromomo.eu/graphs-and-maps">https://www.euromomo.eu/graphs-and-maps</a>

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

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

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

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

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

"Marks KJ, Whitaker M, Agathis NT, et al. Hospitalization of infants and children aged 0-4 years with laboratory-confirmed COVID-19 - COVID-NET, 14 States, March 2020 - February 2022. <a href="https://ourworldindata.org/excess-mortality-covid">https://ourworldindata.org/excess-mortality-covid</a>

"Marks KJ, Whitaker M, Agathis NT, et al. Hospitalization of infant

- A total of 7459 cases of MIS-C have been reported, including 63 deaths.
  - There does not appear to be an increase in MIS-C despite the surge of Omicron cases but this may be due to delays in reporting and 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	Predominant variant	Cases	Hospitalisations	MIS-C/PIMS-TS	Deaths^
VIC, Australia	Not reported	1	Not available	Not reported	2ь
NSW, Australia	Omicron BA.2	<b>↑</b>	Stable	Not reported	<b>4</b> <sup>b</sup>
Canada	Omicron BA.1	$\downarrow$	<b>↓*</b>	Not reported	34 <sup>b</sup>
Denmark	Omicron BA.2	Stable	Stable	44 cases⁺	5 <sup>b</sup>
England, UK	Omicron BA.2	<b>↑</b>	Stable	Not reported	83b,#
Finland	Omicron	$\downarrow$	Stable	Not reported	0
Netherlands	Omicron BA.2	$\downarrow$	Stable	Not reported	Not reported
Scotland, UK	Omicron BA.2	Stable	<b>↑</b>	Not reported	5a,#
Singapore	Omicron BA.2	$\downarrow$	<b>↓</b>	5 cases	0
South Africa	Omicron BA.2	Stable	<b>↓*</b>	Not reported	840b
USA	Omicron BA.1	$\downarrow$	$\downarrow$	7459 cases	933 <sup>b</sup>

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

19. #In the past year.







<sup>\*</sup>Available data includes both children and adults.

<sup>\*</sup>During the Omicron period (1 November 2021 - 1 February 2022).

<sup>^</sup>Age range for child deaths between 0-19y except Scotland (0-14y) and USA (0-17y). Deaths @due to COVID-19 or @with COVID-



List of abbit viations			
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)

PHSM <sup>22</sup>	Schools & mitigat	ion <sup>23</sup>		Vaccination	coverage 24,25		
From late Feb 2022, masks are no longer required in	Closed for holidays from mid-Dec 2021 and returned to school in late Jan 2022.		Age group				
most settings, QR check-in for certain venues only,			(years)	1st dose (%)	2 <sup>nd</sup> dose (%)	3 <sup>rd</sup> /booster (%)	
proof of vaccination to attend some premises,	Multi-layered mitigation strategies were introduced,		5-11	55.9	25.0	-	
reduced TTIQ and advice to work from home removed.	including twice-weekly surveillance RAT (childcare,			12-15	89.5	85.2	-
removed.		schools), mandatory f air-purification de	third vaccine dose for vices.	16+	95.1	93.7	-
		•		18+	-	-	65.2
	above.					By+ and 16-17y from kk groups from 4 Apr erely immunocompror	3 Feb 2022, second booster 2022. Three primary dose mised people aged 5y+ from
Infections by age group <sup>26</sup>	Hospitalisations i	n children <sup>27</sup>		Deaths by a	ge group <sup>28</sup>		
Rapid antigen vs PCR cases	Current cases in hospital			People who have p	assed away with COVID-		
2022 AI		260 cases in hospital	<b>11</b> cases in ICU	27/03/2022			
2 m				Age group		Total	
	No age breakdown			00-09		1	
■ MAC ■ PCR				10-19		1	
Daily PCR cases (to 26/03/2022)				20-29		5	
12000				30-39 40-49		16	
agegroup ▼				40-49 50-59		103	
10000				60-69		200	
20.29 — 30.39				70-79		579	
€ 6000 ——40-49				80-89		1,036	
4000 — 50.59 — 60.69				90+		756	
2000 — 70-79 — 80-89				Total		2,727	
0 200 C C C C C C C C C C C C C C C C C							demic, including one 15 yea tions and in palliative care.
From 8 Jan 2022, both PCR and RAT positive results are considered positive cases. Age distribution is only available for PCR positive cases, as displayed on the graph.							







https://www.coronavirus.vic.gov.au/coronavirus-covidsafe-settings
https://www.coronavirus.vic.gov.au/cducation-information-about-coronavirus-covid-19
https://www.health.gov.au/resources/collections/covid-19-vaccination-daily-rollout-update
https://twitter.com/VicGovDH
https://twitter.com/VicGovDH
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/victorian-coronavirus-covid-19-data

# Australia: New South Wales

(population 8.2 million)

# PHSM<sup>29</sup>

From late Feb 2022, masks are no longer required in most settings, QR check-in and proof of vaccination for certain venues only, reduced TTIQ and advice to work from home removed.

# Schools & mitigation 30

Closed for holidays from mid-Dec 2021 and returned to school in late Jan 2022.

Multi-layered mitigation strategies were introduced, including mandatory third vaccine dose for staff and supply of air-purification devices.

From late February and early March 2022, RATs are only used for symptomatic testing of students and staff (no longer for surveillance), masks are no longer required in most school settings and cohorting removed.

# Vaccination coverage <sup>31, 32</sup> Age group (years) 1<sup>st</sup> dose (%) 2<sup>nd</sup> dose (%) 3<sup>rd</sup>/booster (%) 5-11 49.3 23.7 -

79.4

94.6

59.5

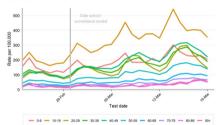
83.5

96.0

Fourth dose for immunocompromised recommended from early Jan 2021, booster dose available to all eligible adults aged 18y+ and 16-17y from 3 Feb 2022, second booster dose available to all 65y+ and high-risk groups from 4 Apr 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.

# Infections by age group 33

Figure 4. Daily rate of people reported with COVID-19 per 100,000 population, by age group and test date, NSW, in the four weeks to 19 March 2022



Omicron (BA.2) is now the dominant variant. Data has not been updated since 19 Mar.  $\,$ 

Table 6. Variants of concern (VOCs) identified by whole genome sequencing (WGS) of virus from people who tested positive for SARS CoV-2 by PCR, by test date, NSW, in the four weeks to 19 March 2022

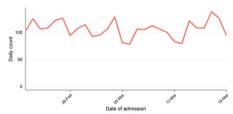
Variant		Week ending					
variant	26 February	19 March					
Delta (B.1.617)	1	0	0	2			
Omicron (BA.1)	215	202	129	11			
Omicron (BA.2)	107	160	207	22			
Total	323	362	336	35			

# Hospitalisations in children 34

Table 3. Age group of people diagnosed with COVID-19 in the week ending 19 March 2022 who were hospitalised, NSW

Age group (years)	Admitted to hospital (but not to ICU) (%)	Admitted to ICU (%)	Total
0-9	49 (12%)	3 (9%)	52 (12%)
10-19	14 (3%)	3 (9%)	17 (4%)
20-29	41 (10%)	1 (3%)	42 (9%)
30-39	41 (10%)	8 (24%)	49 (11%)
40-49	34 (8%)	2 (6%)	36 (8%)
50-59	24 (6%)	3 (9%)	27 (6%)
60-69	49 (12%)	8 (24%)	57 (13%)
70-79	58 (14%)	3 (9%)	61 (14%)
80-89	74 (18%)	3 (9%)	77 (17%)
90+	25 (6%)	0 (0%)	25 (6%)
Total	409 (99%)	34 (100%)	443 (100%)

Figure 1. Number of people admitted to hospital per day within 14 days of their diagnosis, NSW, 14 February to 19 March 2022



Some 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 35

12-15

16+

Table 4. Reported deaths of people with COVID-19, by age group, NSW, in the week ending 19 March 2022

Age-group (years)	Number of deaths
0-9	0 (0%)
10-19	0 (0%)
20-29	0 (0%)
30-39	1 (3%)
40-49	1 (3%)
50-59	2 (5%)
60-69	3 (8%)
70-79	10 (26%)
80-89	9 (23%)
90+	13 (33%)
Total	39 (100%)

Table 2. Reported deaths of people with COVID-19, by vaccination status, NSW, in the week ending 19 March 2022

Vaccination status	Number of deaths
Three or more doses	8 (21%
Two doses	16 (41%
One dose	1 (3%
No dose/Unknown	14 (36%
Total	39 (100%

Four children have died with COVID-19 throughout the pandemic, including one 15 year old with pneumococcal meningitis, one three-year-old with underlying genetic disorder, one two-year-old with no major pre-existing conditions and one two-month-old baby.







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

https://education.nsw.gov.au/covid-19/advice-for-families

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

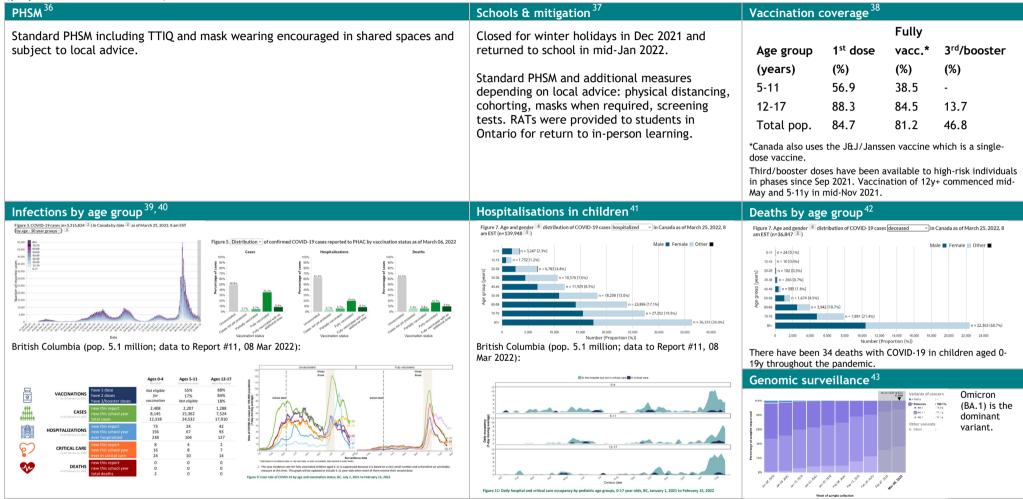
https://twitter.com/NSWHealth

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

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

# Canada

(population 38 million)



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

Page 11 | Number 14: 28 March 2022







<sup>37</sup> 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/

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

<sup>43</sup> https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html

# **Denmark**

(population 5.9 million)

PHSM <sup>44</sup>	Schools & mitigation 45	Vaccination coverage <sup>46</sup>	Genomic surveillance 47
All restrictions lifted from February 2022.	Closed early for winter holidays in 2021 and returned to school in early Jan 2022.	Age 3 <sup>rd</sup> / group 1 <sup>st</sup> dose 2 <sup>nd</sup> dose booster	(657)   6742   674   6
	Standard PHSM, close contacts are not required to isolate but encouraged to get tested.	(years)     (%)     (%)       12+     82.3     80.8     61.4       5-11     47.4     38.8     -       12-15     81.9     79.9     0.4       16-19     89.9     88.7     44.4       Commenced 3 <sup>rd</sup> /booster vaccination for people 65y+ in late Oct and for all adults from late Nov 2021. Vaccination for 5-11y age group	Omicron (BA.2) is the predominant variant (>99%).
Infections by age group <sup>48, 49</sup>	Hospitalisations in children 50	commenced late Nov 2021.  Deaths by age group <sup>51, 52</sup>	MIS-C <sup>53</sup>
Weekly positive cases by age and vaccine status*	Weekly admissions by age and vaccine status*	Weekly deaths by age and vaccine status*	Prevalence of MIS-C and Kawasaki syndrome in
Ugentligt antal positive opdelt på alder og vaccinestatus Relative og absolute antal personer med positiv SARS-CoV-2 PCR test Viser kun ikkendligser positive.	Ugentligt antal indlæggelser opdelt på alder og vaccinestatus Relative og absolutte antal indlæggelser med positiv SARS-CoV-2 PCR trest	Ugentligt antal døde opdelt på alder og vaccinestatus Relative og absolutte ansal døde med positiv SARS-CoV-2 PCR rest  Total of 5 deaths	Children since 2017 Figur 6. Forekomsten af MIS-C (Multi Inflammatory Syndrome in Children) og Kawa sakis syndrom blandt børn siden 2017
Positive per 100.000 Assover med provides per 100.000 abdress reg vercinationsgrappen  5.500  6.51  6.51  6.52  6.54  6.	Indiaggelser per 100.000  Apper large in a real and ages in: per 100.000 i alors on vaccinarioringsuccon  Apper large in a real and ages in: per 100.000 i alors on vaccinarioringsuccon  100  100  100  100  100  100  100  1	Dode per 100.000 Angiore and deale per 100.000 ladors or our circles framewood  Angiore and d	Mulabulant lyministrucides yndrom (Kawasaki)  12- 9- 9- 0- Mulatystem inflammatory Syndrome in Children (MIS-C)  12- 12- 12- 12- 13- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3- 3
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Ingen vaccination Fuld effekt 2 doser Fuld effekt 3 doser	Ingen vaccination III Fuld effekt 2 doser III Fuld effekt 3 doser	■ Ingen vaccination ■ Fuld effekt 2 doser ■ Fuld effekt 3 doser	Data to Report #10, 14 Feb 2022
Kristoffer T. Baek, covid19danmark.dk, data: 5SI	Kristoffer T. Baek, covid 1.9danmark.dk, data: 551	Kristoffer T. Bæk, covid 19danmark.dk, data; SSI	

\*(1) Top figures are rates per 100,000 and bottom figures are raw numbers; (2) Yellow (unvaccinated), blue (two doses), green (three doses)







<sup>45</sup> https://en.coronasmitte.dk/rules-and-regulations https://en.coronasmitte.dk/rules-and-regulations

https://en.coronasmitte.dk/rules-and-regulations
https://experience.argsic.com/experience/9824b03b114244348ef0b10f69f490b4/page/page 3/
https://covid19genomics.dk/statistics
https://covid19danmark.dk/
https://covid19sd.idk/overvagningsdata/ugentlige-opgorelser-med-overvaagningsdata
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https://covid19si.dk/voevagningsdata/ugentlige-opgorelser-med-overvaagningsdata
https://www.sst.dk/-/media/Udgivelser/2022/Corona/Vaccination/Notat-vaccination-af-boern-5-11-aar.ashx

# England, UK

(population 56.6 million)

PHSM <sup>34</sup>	Schools & mitigation 33	Vaccination coverage 30			
Standard PHSM including reduced TTIQ, asymptomatic RAT encouraged and provided free of charge. Indoor mask-wearing and proof of vaccination to attend most premises no longer required. Remaining restrictions are gradually being lifted.	Closed for winter holidays in Dec 2021 and returned to school in early Jan 2022.  Standard PHSM. RAT screening for staff and secondary school students, mask wearing and close contact isolation no longer required.	Age group         (years)       1st dose (%)       2nd dose (%)       3rd/booster (%)         12+       91.7       85.7       66.7         12-15       57.3       31.4       0.3         16-17       68.2       52.2       13.0         Third/booster dose available for all 18y+ and other high-risk groups.         Vaccination for 16-17y commenced mid-Aug, 12-15y mid-Sep 2021 (initially as single dose) and 5-11y late Feb 2022 (coverage data not available).			
Infections by age group 57	Hospitalisations in children 58,59	Deaths by age group <sup>60</sup>			
Figure 5: Weekly confirmed COVID-19 case rates per 100,000, by episode*, tested under Pillar 1 and Pillar 2, by age group  4,000  3,500	Figure 44: Weakly hospital admission rate by age group for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch  (a)	Figure 56: Age-sex pyramid of deaths within 28 or 60 days of a positive COVID-19 test, for the past year    Bernale (28 day)			





https://www.gov.uk/guidance/covid-19-coronavirus-restrictions-what-you-can-and-cannot-do
https://www.gov.uk/government/publications/actions-for-schools-during-the-coronavirus-outbreak/schools-covid-19-operational-guidance

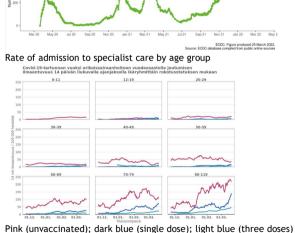
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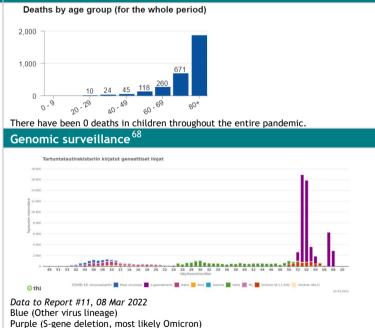
<sup>61</sup> https://www.government/publications/investigation-of-sars-cov-2-variants-technical-briefings

# **Finland**

# E E million)

(population 5.5 million)					
PHSM <sup>62</sup>	Schools & mitigation 63	Vaccination o	overage <sup>64</sup>		
Restrictions reinstated in late Dec 2021, including mandatory indoor mask wearing, proof of vaccination to attend certain 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. Gradual easing of restrictions from Feb 2022. From early March 2022, advice to work from home removed.	Schools closed for winter holiday in late Dec 2021 and reopened in early Jan 2022.  Standard PHSM, cohorting and ventilation.	recommended f	or 12y+ with se		3 <sup>rd</sup> /booster (%) - 1.5 62.7 rd 18y+. Fourth dose ficiency. Vaccine offered at the Dec 2021.
Infections by age group <sup>65</sup>	Hospitalisations in children 66	Deaths by ag	e group <sup>67</sup>		
Finland: 14-day age-specific COVID-19 case notification rate	Finland: hospital occupancy by COVID-19 cases	1,000		8 260 671 50 69 80*	t the entire pandemic.





ECDC. Figure produced 25 March 2022. Source: TESSy COVID-19







https://valtioneuvosto.fi/en/information-on-coronavirus/current-restrictions
https://okm.fi/documents/1410845/655478555/McE-THL-recommendations-to+education+and+early+childhood+education+and+care+1.3.2022.pdf/61cad874-6b78-84e4-a885-3a61ca69cd10
https://sompo.thl.fi/pivot/prod/en/vaccreg/cov19cov/summary\_cov19ageareacov
https://covid19-country-overviews.ecdc.europa.eu/countries/Finland.html
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https://covid19-country-overviews.ecdc.europa.eu/countries/Finland.html

# **Netherlands**

PHSM<sup>69</sup>

(population 17.4 million)

# Advice for hybrid work arrangements, recommendation to perform self-test before visiting others or public places, indoor mask wearing required in certain venues, all public venues open, reduced TTIQ. Remaining restrictions are gradually being lifted.

Closed for winter holidays in late Dec 2021 and returned to school in early Jan 2022.

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.

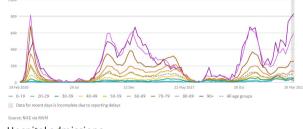
### Vaccination coverage 71 3<sup>rd</sup>/booster Age group 1st dose Fully vacc. (years) (%) (%) (%) 5-11 5.0 1.0 12-17 69.0 68.0 18+ 86.4 62.6 \*Note: The Netherlands also uses the J&J/Janssen vaccine which is a single-dose

\*Note: The Netherlands also uses the J&J/Janssen vaccine which is a single-dose vaccine. Third/booster dose available for all 18y+. Vaccine offered to 12-17y from early Jul 2021 and 5-11y from mid-Jan 2022.

# Infections by age group 72,73 Part 10,000 inhabitaris 1,000 1,

# Hospitalisations in children 74,75

Schools & mitigation 70

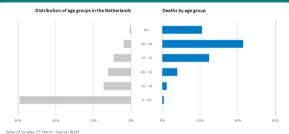


### Hospital admissions

If we look at all hospital admissions (91,355) reported by the <u>NICE Foundation</u>  $\pi$  between 1 January 2021 and 15 March 2022, 1.4% (1,310) were younger than 4 years old. 0.4% (328) were aged 4-11 years and 0.3% (316) were aged 12-17 years. The vast majority (97.9% or 89,401) of all people admitted to hospital with COVID-19 were aged 18 years or older.

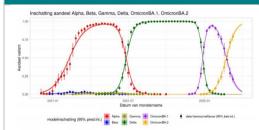
Age group (children)	Hospital admissions	
<4	1,310	1.4%
4-11	328	0.4%
12-17	316	0.3%
>17	89,401	97.9%
Total	91,355	

# Deaths by age group 76



The number of deaths in children is not known as the Netherlands provides a total sum of all deaths between 0-49 years.

# Genomic surveillance 77



Omicron (BA.2) is the dominant variant.





Page 15 | Number 14: 28 March 2022

<sup>69</sup> https://www.government.nl/topics/coronavirus-covid-19/tackling-new-coronavirus-in-the-netherlands/coronavirus-measures-in-brief

https://www.rivm.nl/en/coronavirus-covid-19/children-and-covid-19

https://coronadashboard.government.nl/landelijk/vaccinaties
https://coronadashboard.government.nl/landelijk/positief-geteste-menser

<sup>&</sup>lt;u>https://coronadasnboard.government.ni/landelijk/positier-geteste-mensen</u> https://www.rivm.nl/en/coronavirus-covid-19/children-and-covid-19/research-results-ggd-data

https://coronadashboard.government.nl/landelijk/ziekenhuis-opnames

https://www.rivm.nl/en/coronavirus-covid-19/children-and-covid-19/research-results-ggd-data

https://coronadashboard.government.nl/landelijk/sterfte

https://www.rivm.nl/en/coronavirus-covid-19/virus/variants

# Scotland, UK

PHSM<sup>78</sup>

(population 5.5 million)

From late Feb 2022, standard PHSM including
TTIQ, indoor mask-wearing, asymptomatic RAT
encouraged and provided free of charge. Hybrid
work arrangements permitted and proof of
vaccination to attend most premises no longer
required.

# Schools & mitigation 79

Closed for winter holidays in late Dec 2021 and returned to school in early Jan 2022.

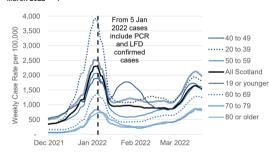
Standard PHSM. RAT screening for staff and secondary school students, mask wearing (except in indoor communal areas of secondary schools) and close contact isolation no longer required.

### Age 2<sup>nd</sup> dose group 1st dose 3<sup>rd</sup>/booster (%) (%) (%) (years) 12+ 93.1 87.3 72.8 12-15 67.9 41.6 1.1 16-17 80.9 53.9 9.4

Third/booster dose available for all 18y+ and other high-risk groups. Vaccination for 16-17y commenced mid-Aug, 12-15y mid-Sep 2021 (initially as single dose) and 5-11y late Feb 2022 (coverage data not available).

# Infections by age group 81

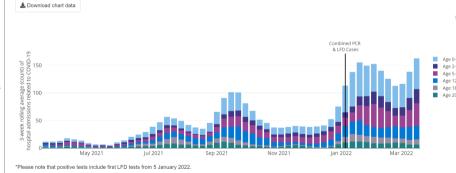
Figure 6: Weekly total combined PCR and LFD cases (including reinfections) per 100,000 population in Scotland by age group, by specimen date. Data to 20 March 2022<sup>28 29</sup>.



Omicron (BA.2) is the dominant variant in Scotland.

# Hospitalisations in children 82

Hospital admissions 'with' COVID-19 (3-week rolling average)

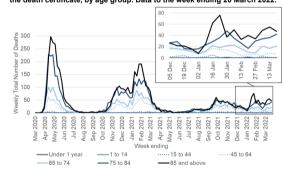


Any admitted child who is COVID-19 positive is included, so this overestimates the number of children being admitted and needing treatment for COVID-19.

# Deaths by age group 83,84

Vaccination coverage 80

Figure 11: Weekly total number of deaths where Covid-19 was mentioned on the death certificate, by age group. Data to the week ending 20 March 2022.



There have been 5 deaths due to COVID-19 in children aged 0-14y in the past year.







<sup>78</sup> https://www.gov.scot/coronavirus-covid-19/

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

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

<sup>81</sup> https://www.gov.scot/collections/coronavirus-covid-19-the-state-of-the-epidemic/

https://scotland.shinyapps.io/phs-covid19-education/\_w\_852fb58e/
 https://www.gov.scot/collections/coronavirus-covid-19-the-state-of-the-epidemic/

https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics/sytheme/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<sup>85</sup>

From late Mar 2022, some restrictions have eased including masks mandatory indoors but optional outdoors, hybrid work arrangements, increased density limits in shops, vaccination requirements to enter many premises.

# Schools & mitigation 86

Closed for end-of-year holidays in mid-Nov 2021 and returned to school in early Jan 2022.

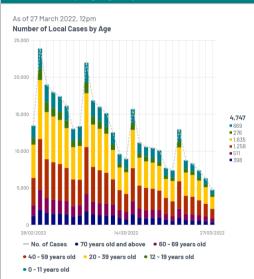
Standard PHSM, RAT tests for symptomatic students and staff and mandatory masks 6v+ with exceptions.

# Vaccination coverage 87

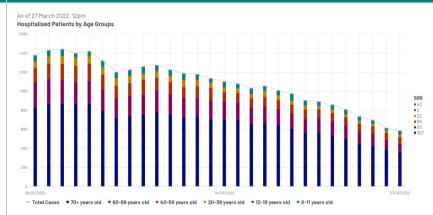
Age group	1st dose	2 <sup>nd</sup> dose	3 <sup>rd</sup> /booster
(years)	(%)	(%)	(%)
Total pop.	93.0	92.0	71.0

Third/booster dose available for all aged 12y+. Vaccination for 12y+ commenced early June and 5-11y late Dec 2021. From 14 Feb 2022, all 18y+ must receive a booster dose within 270 days of their 2<sup>nd</sup> dose to be considered fully vaccinated. The same applies to all 12-17y from 14 Mar 2022.

# Infections by age group 88



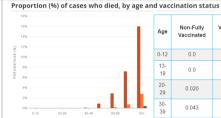
# Hospitalisations in children 89



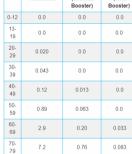
One child was admitted to ICU due to MIS-C for the entire pandemic.

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

# Deaths by age group 90







Non-Fully

Fully

0.42

0.027

Fully

Vaccinated

2.8

0.11

1 May 2021 to 28 Feb 2022

80+

Total

0.67

There have been 0 deaths in children throughout the entire pandemic.

Data to 28 Feb 2022







Page 17 | Number 14: 28 March 2022

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

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

<sup>87</sup> https://www.moh.gov.sg/

<sup>88</sup> https://www.moh.gov.sg/ 89 https://www.moh.gov.sg/

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

# South Africa

# (population 60.4 million)

# PHSM<sup>91</sup>

Since Feb 2022, asymptomatic cases are not required to isolate, mandatory masks 6y+ with exceptions. Previous curfew and density limits lifted.

# Schools & mitigation 92

Closed for end-of-year holidays in mid-Dec 2021 and returned to school in early Jan 2022.

Standard PHSM, ventilation, symptom screening, mandatory masks 6v+ with exceptions and visitor limits.

# Vaccination coverage 93

Age group Fully

(vears) vaccinated\* (%)

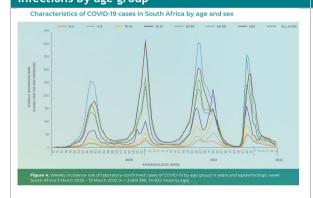
18+ 48.6

\*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.

# Infections by age group 94

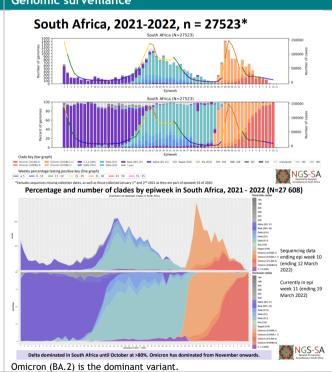


# Hospitalisations in children and deaths by age group 95



Total of 840 deaths with COVID-19 in children 0-19y throughout the entire pandemic. Deaths in children account for <1% of all deaths in South Africa.











https://www.gov.za/covid-19/resources/regulations-and-guidelines-coronavirus-covid-19

https://www.gov.za/covid-19/resources/regulations-and-guidelines-coronavirus-covid-19

<sup>93</sup> https://sacoronavirus.co.za/latest-vaccine-statistics/

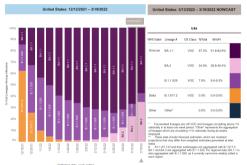
https://www.nicd.ac.za/diseases-a-z-index/disease-index-covid-19/surveillance-reports/weekly-epidemiological-brief/

https://www.nicd.ac.za/diseases-a-z-index/disease-index-covid-19/surveillance-reports/daily-hospital-surveillance-datcov-report/ https://www.nicd.ac.za/diseases-a-z-index/disease-index-covid-19/sars-cov-2-genomic-surveillance-update/

# **USA**

# (population 332.8 million)

PHSM <sup>97</sup>	Schools & mitigation 98	Vaccination coverage 99						
The US CDC recommends indoor mask wearing for all aged 2y+ in areas of high community	Closed for winter holidays in late Dec 2021 and reopened from early Jan 2022.	Age group (years)	1 <sup>st</sup> dose (%)	Fully vaccinated* (%)	3 <sup>rd</sup> /booster (%)	*Note: The US also uses the J&J/Janssen vaccine which is a single-dose vaccine.		
transmission, physical distancing, hand & surface hygiene, TTIQ, but adoption varies by State/Territory.	Standard PHSM, cohorting, masks, PCR & RAT screening, but adoption varies by State/Territory.	5-11	34.1	27.4	-	Third/booster dose for 65y+ and other high-risk individuals from Sep 2021, expanded to all 18y+ from late Nov 2021 and 12y+ from early Jan 2022. Vaccination offered to 12y+		
		12-17	68.1	58.2	23.2			
		18+	88.3	75.4	48.2	from May and 5-11y from Nov 2021.		
Infections by age group 100	MIS-C 101	Deaths by ag	e group <sup>102, 1</sup>	03	Genomic surve	eillance <sup>104</sup>		
COVID-19 Weekly Cases per 100,000 Population by Age Group, United States  March 01, 2020 - March 26, 2022*  Age Group	There have been 7459 cases of MIS-C throughout the entire pandemic, including 63 deaths. The median age of MIS-C cases was 9y and half were between 5-13y. Data to Report #11, 08 Mar 20222	COVID-19 Weekly Deaths per March  Total 933 deaths throughout the e of all deaths in tl There is marked fatality rates are majority of State	100,000 Population by Age of 101, 2020 - March 26, 2022*  Manual Case failed Date by End of Week*  with COVID-19 i nitire pandemic, he US. variation by State between 0-0.01 es and Territories 7); Arizona (n=62); Puerto Rico (n	Age Group	United States: 12/12/20  1000. 1000. 1100 1100 1100 1100 1100			









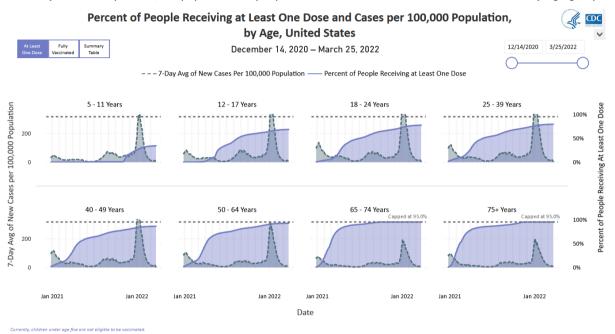
 $<sup>^{97} \</sup> https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html\\ ^{86} \ https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-guidance.html$ 

https://covid.cdc.gov/covid-data-tracker/#vaccinations vacc-total-admin-rate-total
https://covid.cdc.gov/covid-data-tracker/#vaccinations vacc-total-admin-rate-total
https://covid.cdc.gov/covid-data-tracker/#demographicsovertime
https://covid.cdc.gov/covid-data-tracker/#demographicsovertime
https://covid.cdc.gov/covid-data-tracker/#demographicsovertime
https://www.cdc.gov/nchs/nvss/vsrr/covid-weekly/index.htm

ntips://covid.cdc.gov/covid-data-tracker/#variant-proportions https://covid.cdc.gov/covid-data-tracker/#variant-proportions https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/ https://gis.cdc.gov/grasp/COVIDNEY-COVID19\_3.html

# 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. <sup>107</sup>



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







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