



# COVID-19 and Children's Surveillance Report

Number 11

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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 sourced 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.
- Throughout 2021, the proportion of infections in unvaccinated children generally increased as vaccination of adults increased.<sup>1,2</sup> 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.
- 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 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 most settings is now declining.
- The Omicron variant of concern<sup>3</sup> was first reported from South Africa on 25 November 2021. At the time of writing, it has been detected in 163 countries<sup>4</sup>, up from 146 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.
- 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 have 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.
- All countries reopened schools during the Omicron period. 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 Omicron wave occurred during the school holidays. Instead, school infections reflect 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, for hospitalisations which 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.
- The increase in paediatric hospitalisations during the Omicron wave was seen more so in the 0-4 year old age group.<sup>5</sup> In the USA, the rate of hospitalisations during the peak of the Omicron wave was highest in children aged 0-4 years at 15.6 per 100,000 children (four times higher than the Delta variant peak of 1.8).<sup>6</sup> 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).
- 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.<sup>7</sup> MIS-C has not increased in the USA as yet despite a large increase in Omicron cases, although this is being monitored as there may be a delay in reporting.<sup>8</sup>

<sup>1</sup> Russell FM, Anderson V, Crawford N, Curtis N, Danchin M, Goldfeld S, Hart J, Keeble T, Medley T, Mutholland 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.mcrci.edu.au/sites/default/files/media/documents/covid-19\\_in\\_early\\_childhood\\_education\\_and\\_care\\_and\\_schools.pdf](https://www.mcrci.edu.au/sites/default/files/media/documents/covid-19_in_early_childhood_education_and_care_and_schools.pdf)

<sup>2</sup> 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/>

<sup>3</sup> 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>

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

<sup>5</sup> New York State Department of Health. Paediatric 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](https://www.health.ny.gov/press/releases/2022/docs/pediatric_covid-19_hospitalization_report_summary.pdf)

<sup>6</sup> 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. <https://www.cdc.gov/mmwr/volumes/71/wr/mm7107e4.html>

<sup>7</sup> Omicron drives record cases of child COVID hospitalisations. Financial Times. 17 January 2022. <https://www.ft.com/content/28be9d3f-0b12-4c33-bda9-fbf375c0b7e>

<sup>8</sup> Does Omicron hit kids harder? Scientists are trying to find out. Nature. 04 February 2022. <https://www.nature.com/articles/d41586-022-00309-x>

- There is no increase in excess mortality in children aged 0-14 years in Europe during the Omicron period.<sup>9</sup>
- There is no evidence that school re-opening during the Omicron period has increased community transmission or increased excess mortality in all ages. Where reported, excess mortality has declined, except for a temporary increase in Denmark and a current increase in the Netherlands.
- In late 2020, a study of 18,761 schools in Brazil found that there was no increase in infections or deaths up to 12 weeks after schools reopened. Mobility was already high before school reopening and did not significantly increase afterwards.<sup>10</sup>
- Finland has removed all restrictions on children and Denmark has lifted all restrictions since February 2022. Mask mandates have been removed from several regions, including Victoria (except in primary schools for years 3 to 6), NSW and the UK.

<sup>9</sup> EuroMOMO. Graphs and maps. Copenhagen, Denmark: Statens Serum Institut (SSI); 2022. <https://www.euromomo.eu/graphs-and-maps>

<sup>10</sup> Lichand G, Doria CA, Fernandes JPC, et al. Association of COVID-19 incidence and mortality rates with school reopening in Brazil during the COVID-19 pandemic. JAMA Health Forum. 2022;3(2):e215032. <https://jamanetwork.com/journals/jama-health-forum/fullarticle/2788936>



## Summary

- **Australia** reopened its borders to all travelers from 21 Feb 2021.
- **Victoria** closed schools for holidays from mid-Dec 2021 and they reopened in late Jan 2022. Early childhood centres have remained open.
  - 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.
  - Approximately 55% of 5-11 year olds and 90% of 12-15 year olds have received at least one dose of a COVID-19 vaccine.
  - Case numbers are increasing, with currently ~6300 confirmed cases per day in all ages.
    - Infections are highest in the 10-19 year age group followed by the 40-49 year group. One million children are offered RATs each week, so children are tested more and therefore likely to be over-represented in case numbers and the percentage contribution to all infections, although the breakdown by age for RATs is not available. Infections are declining in all age groups, including school age children.
    - 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 continue to decline.
  - 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.
  - Restrictions have 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, masks required for all staff and high school students (and encouraged for primary school children), 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.
  - Approximately 48% of 5-11 year olds and 84% of 12-15 year olds have received at least one dose of vaccine.
  - Case numbers are increasing, with currently ~11,400 confirmed cases per day in all ages.
    - Infections are highest in the 10-19 year age group and lowest in the 60+ year age group. With 1.2 million children offered RATs each week, they will be over-represented in case numbers and the percentage contribution to total infections due to increased testing.
  - There is no data on hospitalisation trends by age, but overall hospitalisations continue to decline.
  - Two children have died with COVID-19 throughout the entire pandemic.
  - An analysis of COVID-19 in schools in Term 3 and 4, 2021 (18 Oct to 17 Dec) showed that<sup>11</sup>:
    - 33% of locally acquired cases were in people aged 19 years and younger.
    - The majority of exposure events occurred in primary schools (61%), reflecting higher infection and transmission rates among the unvaccinated.
    - The level of community circulation and school attendance strongly influence the likelihood of school exposures occurring. Face-to-face learning increased the number of exposure events from a median of 22 schools per week in Term 3 to 87 schools per week in Term 4.
    - The secondary attack rate during most of Term 4 was low (2.9%) overall and lowest in high schools (1.0%). This was attributed to COVID-19 vaccination in children aged 12 years and above, and other prevention strategies employed.
    - Towards the end of Term 4, a sharp increase in infections and school exposures coincided with the Omicron variant emerging in NSW in late November 2021. 42% of all Term 4 school exposures occurred between 4-17 Dec 2021.
    - Transmission rate was slightly higher in schools with Omicron (3.7%) vs schools with Delta (2.4%), but not higher than in early 2021 (3.7%) before high vaccine uptake in adults and adolescents.
- **In Europe and North America**, there is now a downward trend in most countries and regions.

<sup>11</sup> National Centre for Immunisation Research and Surveillance (NCIRS). COVID-19 in schools - the experience in NSW: 18 October 2021 to 17 December 2021. Sydney, NSW, Australia: NSW Health; 2022. [https://www.ncirs.org.au/sites/default/files/2022-02/NCIRS\\_NSW\\_Schools\\_COVID\\_Summary\\_Term\\_4\\_2021\\_Report%20-%2018-02-2022\\_FINAL\\_1.pdf](https://www.ncirs.org.au/sites/default/files/2022-02/NCIRS_NSW_Schools_COVID_Summary_Term_4_2021_Report%20-%2018-02-2022_FINAL_1.pdf)



- **Canada** closed its schools for the holidays in Dec 2021 and they reopened in early to mid-Jan 2022.
  - 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.
  - There was an initial steep increase in infections due to the Omicron variant followed by a steep downward trend in all age groups.
  - There is no data on hospitalisation trends by age. Overall hospitalisations had increased with Omicron but are now declining.
  - There have been 33 deaths with COVID-19 in children aged 0-19 years throughout the entire pandemic.
  - In British Columbia<sup>12</sup>:
    - Infections amongst 5-11 and 12-17 year olds increased during the Omicron wave and has decreased since late Jan 2022.
    - Between mid-Dec 2021 to mid-Feb 2022, hospitalisation rates amongst unvaccinated 5-11 and 12-17 year olds were 1.8 and 3.5 times higher than their vaccinated counterparts, respectively.
    - Critical care admissions increased slightly but continue to be rare (24 admissions since Jan 2020) among school-aged children.
    - There have been no deaths among school-aged children.
- **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 has slightly increased then decreased in the past month.<sup>13</sup>
  - Restrictions introduced due to the Omicron wave were eased in mid-Jan 2022. From 1 Feb, all restrictions have been lifted.
  - Approximately 82% of the population aged 12+ have received at least one dose of vaccine. The 5-11 year old vaccination program commenced in late Nov 2021.
  - Total infection rates are stabilising in all age groups. Cases are stable in 0-5 years and declining in the 6-11 and 12-15 year age groups.
    - Based on Danish data, Omicron subvariant BA.2 is estimated to be 30% more infectious than BA.1.<sup>14</sup>
    - 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 same increase in 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.<sup>15</sup>
  - A total of 44 cases of MIS-C have been reported throughout the Omicron period (1 Nov 2021 to 1 Feb 2022).<sup>16</sup>
    - 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 prevalence of MIS-C was similar amongst previous SARS-CoV-2 variants, although this is not yet known for Omicron.
    - A study involving 60,000 Danish children found the pre-Omicron rates of MIS-C in children under 18 years to be about 1 per 2000 cases.
  - There have been four 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.<sup>17</sup>
  - Additional PHSM were reintroduced in late Nov 2021 which have been eased. Masks are no longer required in indoor places, including schools. Asymptomatic RATs continue to be encouraged and are provided free of charge.
  - Approximately 57% of 12-15 year olds and 69% 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 and will be made available to the entire age group from mid-Mar 2022.
  - Infections across all age groups are declining.
    - Infection rates are highest in the 30-39 and 50-59 age groups, although these continue to decline.
  - Overall hospitalisations in all ages are declining and 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% are admitted for treatment for COVID-19.<sup>18</sup>

<sup>12</sup> British Columbia Centre for Disease Control. British Columbia COVID-19 situation report for K-12 schools. British Columbia, Canada: Provincial Health Services Authority; 2022. [http://www.bccdc.ca/Health-Info-Site/Documents/COVID\\_sitrep/K12\\_Situation\\_Report/SitRep\\_K-12\\_February2022.pdf](http://www.bccdc.ca/Health-Info-Site/Documents/COVID_sitrep/K12_Situation_Report/SitRep_K-12_February2022.pdf)

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

<sup>14</sup> 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-assement-of-omicron-ba2.pdf?la=en>

<sup>15</sup> Sundhedsstyrelsen [Danish Health Authority]. Statusrapport [Status report]. Copenhagen, Denmark: Sundhedsstyrelsen; 2022. <https://www.sst.dk/-/media/Udgifter/2022/Statusrapport/Statusrapport-35.ashx>

<sup>16</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/Udgifter/2022/Corona/Vaccination/Notat-vaccination-af-boern-5-11-aar.ashx>

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

<sup>18</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>



- There have been 83 deaths with COVID-19 in children aged 0-19 years in the past year.
- During the Omicron wave, the COVID-19 Infection Survey found COVID-19 antibodies in 53.6% of children aged 8-11 years in the first week of Dec 2021, then increasing rapidly to 97.6% by the third week of Feb 2022, indicating exposure or prior infection.<sup>19</sup>
- **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.<sup>20</sup>
  - 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 25% of 5-11 year olds and 79% of 12-17 year olds have received at least one dose of vaccine.
  - Infections remain high but are declining in all age groups.
    - Infections are highest in the 25-49 year age group.
  - There is no hospitalisation data available by age. Overall hospitalisations are high but stabilising.
  - 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 but in the last four weeks there has been an increase.<sup>21</sup>
  - Some restrictions continue to be in place, including indoor mask wearing for certain venues and hybrid work arrangements.
  - Approximately 69% of 12-17 year olds and 5% of 5-11 year olds have received at least one dose of vaccine.
  - Infections were on a steep downward trend until late Feb 2022, but this is now on a steep upward trend. Infections are highest amongst 20-29 year olds.
  - Hospitalisations increased with Omicron but have since declined. There is now a slight upward trend amongst oldest age groups but rates remain lowest in children.
    - In the past year, children <18 years accounted for 2% of all hospital admissions with COVID-19.
  - 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 declined over the Omicron period and is currently at baseline mortality levels.<sup>22</sup>
  - 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. Asymptomatic RATs continue to be encouraged and are provided free of charge.
  - Approximately 71% of 12-15 year olds and 84% 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 and will be made available to the entire age group from mid-Mar 2022.
  - Infections across all age groups declined from the Omicron peak and are now stable, except in children which increased again temporarily but has since declined.
  - Hospitalisations in children continue to decline. Hospitalisations in children are highest 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 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 early Jan 2022, masks were made mandatory indoors & outdoors and shops were open with density limits. Masks remain mandatory in schools for all aged 6 years and older.
  - Approximately 92% of the entire population has received at least one dose of vaccine. All children aged 5-11 years are offered vaccine.
  - Currently there is an upward trend in overall infections with ~16,800 cases per day, primarily in the 20-39 year age group and lowest in children.
  - Overall hospitalisations are high but stabilising and 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. Singapore has not released any further data since 8 Nov 2021.
  - There have been no deaths in children throughout the entire pandemic.

<sup>19</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/datasets/coronaviruscovid19antibodydatafortheuk>

<sup>20</sup> EuroMOMO. Graphs and maps. Copenhagen, Denmark: Statens Serum Institut (SSI); 2022. <https://www.euromomo.eu/graphs-and-maps>

<sup>21</sup> EuroMOMO. Graphs and maps. Copenhagen, Denmark: Statens Serum Institut (SSI); 2022. <https://www.euromomo.eu/graphs-and-maps>

<sup>22</sup> EuroMOMO. Graphs and maps. Copenhagen, Denmark: Statens Serum Institut (SSI); 2022. <https://www.euromomo.eu/graphs-and-maps>



- **South Africa** 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.<sup>23</sup>
  - 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 48% 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 in all age groups followed by a rapid decrease, with children <9 years currently having the lowest infection rates.
    - Omicron subvariant BA.2 was responsible for ~79% of all infections in Feb 2022.
  - Overall hospitalisations continue to decrease and many admissions were incidental (admitted for other reasons and subsequently test positive).
  - There have been 833 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.
  - An analysis of paediatric hospitalisation data in Tshwane District during the Omicron wave found that among 138 hospitalised children<sup>24</sup>:
    - All were unvaccinated and 63% were aged 0-4 years.
    - Among the 44% admitted with COVID-19 as the primary diagnosis, the most common symptoms were fever (61%), cough (57%), shortness of breath (31%), seizures (31%), vomiting (26%) and diarrhoea (25%).
    - Median duration of hospitalisation was 2 days.
    - Most children (88%) required standard ward care and 20% required oxygen. Five percent (5%) were ventilated and 3% died.
  - A study of 7010 participants found high seroprevalence of SARS-CoV-2 IgG antibodies: 56.2% in children aged below 12 years and 73.8% in adolescents aged 12-17 years, indicating widespread underlying SARS-CoV-2 seropositivity despite no/low vaccine coverage in these age groups.<sup>25</sup>
- In the **United States**, schools reopened following the end-of-year holidays. Excess mortality in all age groups declined over the Omicron period and has now stabilised.<sup>26</sup>
  - The US Centres for Disease Control and Prevention (CDC) recommend multi-layered PHSM, but adoption varies by State and Territory.
  - Approximately 33% 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.
  - Hospitalisations are decreasing in all age groups.
    - During the Omicron surge, the incidence of croup in young children nearly doubled compared to the rate in prior months, consistent with prior case reports.<sup>27</sup>
    - During the Omicron surge, hospitalisation rates among children aged 0-4 years was 15.6, 5-11 years was 2.4 and 12-17 years was 5.9 per 100,000. During the Delta period, hospitalisation rates were 2.9, 1.1 and 1.7 respectively. Compared to the Delta period, this was a risk ratio of 4-7.2, 1.5-3.6 and 2.5-5 respectively.<sup>28</sup>
    - An analysis of hospitalisation data from 2269 children aged 5-11 years between Jan to Mar 2021 found that the rate of hospitalisations for COVID-19 with MIS-C was 5.7 per 100,000 compared to 5.1 without MIS-C.<sup>29</sup>
  - There have been 865 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.<sup>30</sup>
  - 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 so far 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.

<sup>23</sup> 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>24</sup> Cloete J, Kruger A, Masha M, et al. Paediatric hospitalisations due to COVID-19 during the first SARS-CoV-2 omicron (B.1.1.529) variant wave in South Africa: a multicentre observational study. *The Lancet Child & Adolescent Health*. 2022. [https://doi.org/10.1016/S2352-4642\(22\)00027-X](https://doi.org/10.1016/S2352-4642(22)00027-X)

<sup>25</sup> Madhi SA, Kwatra G, Myers JE, et al. Population immunity and COVID-19 severity with Omicron variant in South Africa. *New England Journal of Medicine*. 2022. <https://doi.org/10.1056/NEJMoa2119658>

<sup>26</sup> 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>27</sup> Tunc et al. Pediatric croup during the COVID-19 Omicron variant surge. *medRxiv* [Preprint]. 2022. <https://www.medrxiv.org/content/10.1101/2022.02.02.2227022v1>

<sup>28</sup> Marks KJ, Whitaker M, Angelin 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. <https://www.cdc.gov/mmwr/volumes/71/wr/mm7107e4.htm>

<sup>29</sup> Encinosa W, Figueroa J & Elias Y. Severity of hospitalizations from SARS-CoV-2 vs influenza and respiratory syncytial virus infection in children aged 5 to 11 years in 11 US States. *JAMA Pediatrics*. 2022. <https://doi.org/10.1001/jamapediatrics.2021.6566>

<sup>30</sup> 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/>





Summary of COVID-19 epidemiology in children and adolescents

Country	Cases	Hospitalisations	MIS-C/PIMS-TS	Deaths <sup>^</sup>
VIC, Australia	↑	Not available	Not reported	2 <sup>b</sup>
NSW, Australia	↑	↓*	Not reported	2 <sup>b</sup>
Canada	↓	↓*	Not reported	33 <sup>b</sup>
Denmark	Stable	Stable	44 cases <sup>†</sup>	4 <sup>b</sup>
England, UK	↓	↓	Not reported	83 <sup>b, #</sup>
Finland	↓	Stable	Not reported	0
Netherlands	↑	Stable	Not reported	Not reported
Scotland, UK	Stable	↓	Not reported	5 <sup>a, #</sup>
Singapore	↑	Stable	5 cases	0
South Africa	↓	↓*	Not reported	833 <sup>b</sup>
USA	↓	↓	7459 cases	865 <sup>b</sup>

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

\*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 <sup>a</sup>due to COVID-19 or <sup>b</sup>with COVID-19. <sup>#</sup>In the past year.



## 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)

PHSM <sup>31</sup>	Schools & mitigation <sup>32</sup>	Vaccination coverage <sup>33,34</sup>																								
<p>From late Feb 2022, masks are no longer required in most settings, QR check-in for certain venues only, proof of vaccination to attend some premises, reduced TTIQ and advice to work from home removed.</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 and supply of air-purification devices.</p> <p>From late Feb 2022, masks are only required indoors in primary schools for all staff and students in grade 3 and above.</p>	<p><b>Age group</b></p> <table border="1"> <thead> <tr> <th>(years)</th> <th>1<sup>st</sup> dose (%)</th> <th>2<sup>nd</sup> dose (%)</th> <th>3<sup>rd</sup>/booster (%)</th> </tr> </thead> <tbody> <tr> <td>5-11</td> <td>54.8</td> <td>1.9</td> <td>-</td> </tr> <tr> <td>12-15</td> <td>89.5</td> <td>84.6</td> <td>-</td> </tr> <tr> <td>16+</td> <td>94.9</td> <td>93.5</td> <td>-</td> </tr> <tr> <td>18+</td> <td>-</td> <td>-</td> <td>61.1</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>	(years)	1 <sup>st</sup> dose (%)	2 <sup>nd</sup> dose (%)	3 <sup>rd</sup> /booster (%)	5-11	54.8	1.9	-	12-15	89.5	84.6	-	16+	94.9	93.5	-	18+	-	-	61.1				
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<p><b>Rapid antigen vs PCR cases</b></p> <p><b>Daily PCR cases (to 07/03/2022)</b></p> <p>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.</p>	<p><b>Current cases in hospital</b></p> <p><b>203</b> cases in hospital</p> <p><b>6</b> cases in ICU</p> <p>No age breakdown</p>	<p><b>People who have passed away with COVID-19</b></p> <p>08/03/2022</p> <table border="1"> <thead> <tr> <th>Age group</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>00-09</td> <td>1</td> </tr> <tr> <td>10-19</td> <td>1</td> </tr> <tr> <td>20-29</td> <td>3</td> </tr> <tr> <td>30-39</td> <td>15</td> </tr> <tr> <td>40-49</td> <td>29</td> </tr> <tr> <td>50-59</td> <td>96</td> </tr> <tr> <td>60-69</td> <td>191</td> </tr> <tr> <td>70-79</td> <td>560</td> </tr> <tr> <td>80-89</td> <td>981</td> </tr> <tr> <td>90+</td> <td>724</td> </tr> <tr> <td><b>Total</b></td> <td><b>2,601</b></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	Total	00-09	1	10-19	1	20-29	3	30-39	15	40-49	29	50-59	96	60-69	191	70-79	560	80-89	981	90+	724	<b>Total</b>	<b>2,601</b>
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<sup>32</sup> <https://www.coronavirus.vic.gov.au/education-information-about-coronavirus-covid-19>  
<sup>33</sup> <https://www.health.gov.au/resources/collections/covid-19-vaccination-daily-rollout-update>  
<sup>34</sup> <https://twitter.com/VicGovDH>  
<sup>35</sup> Data from: <https://www.coronavirus.vic.gov.au/victorian-coronavirus-covid-19-data>  
<sup>36</sup> <https://www.coronavirus.vic.gov.au/victorian-coronavirus-covid-19-data>  
<sup>37</sup> <https://www.coronavirus.vic.gov.au/additional-covid-19-case-data#cases-in-hospital>



# Australia: New South Wales (population 8.2 million)

PHSM <sup>38</sup>	Schools & mitigation <sup>39</sup>	Vaccination coverage <sup>40, 41</sup>																																																																																				
<p>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.</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 mandatory third vaccine dose for staff and supply of air-purification devices.</p> <p>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.</p>	<table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1<sup>st</sup> dose (%)</th> <th>2<sup>nd</sup> dose (%)</th> <th>3<sup>rd</sup>/booster (%)</th> </tr> </thead> <tbody> <tr> <td>5-11</td> <td>47.9</td> <td>1.8</td> <td>-</td> </tr> <tr> <td>12-15</td> <td>83.6</td> <td>79.0</td> <td>-</td> </tr> <tr> <td>16+</td> <td>95.8</td> <td>94.4</td> <td>55.8</td> </tr> </tbody> </table> <p>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. 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 <sup>st</sup> dose (%)	2 <sup>nd</sup> dose (%)	3 <sup>rd</sup> /booster (%)	5-11	47.9	1.8	-	12-15	83.6	79.0	-	16+	95.8	94.4	55.8																																																																				
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<p>Figure 4. Rate of reported people with COVID-19 per 100,000 population, by age group and test date, in the four weeks to 26 February 2022</p>	<p>Table 2. Age group of people with COVID-19 who were being cared for in hospital in the week ending 26 February 2022</p> <table border="1"> <thead> <tr> <th>Age group (years)</th> <th>Admitted to hospital (but not to ICU) (%)</th> <th>Admitted to ICU (%)</th> <th>Total</th> </tr> </thead> <tbody> <tr><td>0-9</td><td>30 (10%)</td><td>0 (0%)</td><td>30 (9%)</td></tr> <tr><td>10-19</td><td>19 (7%)</td><td>2 (7%)</td><td>21 (7%)</td></tr> <tr><td>20-29</td><td>29 (10%)</td><td>3 (10%)</td><td>32 (10%)</td></tr> <tr><td>30-39</td><td>27 (9%)</td><td>0 (0%)</td><td>27 (8%)</td></tr> <tr><td>40-49</td><td>13 (4%)</td><td>2 (7%)</td><td>15 (5%)</td></tr> <tr><td>50-59</td><td>29 (10%)</td><td>2 (7%)</td><td>31 (10%)</td></tr> <tr><td>60-69</td><td>33 (11%)</td><td>5 (17%)</td><td>38 (12%)</td></tr> <tr><td>70-79</td><td>48 (16%)</td><td>9 (30%)</td><td>57 (18%)</td></tr> <tr><td>80-89</td><td>48 (16%)</td><td>6 (20%)</td><td>54 (17%)</td></tr> <tr><td>90+</td><td>17 (6%)</td><td>1 (3%)</td><td>18 (6%)</td></tr> <tr><td>Total</td><td>293 (100%)</td><td>30 (100%)</td><td>323 (100%)</td></tr> </tbody> </table> <p>Figure 1. Daily number of people with COVID-19 admitted to hospital, in the four weeks to 26 February 2022</p>	Age group (years)	Admitted to hospital (but not to ICU) (%)	Admitted to ICU (%)	Total	0-9	30 (10%)	0 (0%)	30 (9%)	10-19	19 (7%)	2 (7%)	21 (7%)	20-29	29 (10%)	3 (10%)	32 (10%)	30-39	27 (9%)	0 (0%)	27 (8%)	40-49	13 (4%)	2 (7%)	15 (5%)	50-59	29 (10%)	2 (7%)	31 (10%)	60-69	33 (11%)	5 (17%)	38 (12%)	70-79	48 (16%)	9 (30%)	57 (18%)	80-89	48 (16%)	6 (20%)	54 (17%)	90+	17 (6%)	1 (3%)	18 (6%)	Total	293 (100%)	30 (100%)	323 (100%)	<p>Table 3. Reported deaths of people with COVID-19, by age group, in the week ending 26 February 2022</p> <table border="1"> <thead> <tr> <th>Age-group (years)</th> <th>Number of deaths</th> </tr> </thead> <tbody> <tr><td>0-9</td><td>0</td></tr> <tr><td>10-19</td><td>0</td></tr> <tr><td>20-29</td><td>0</td></tr> <tr><td>30-39</td><td>0</td></tr> <tr><td>40-49</td><td>1</td></tr> <tr><td>50-59</td><td>1</td></tr> <tr><td>60-69</td><td>7</td></tr> <tr><td>70-79</td><td>13</td></tr> <tr><td>80-89</td><td>19</td></tr> <tr><td>90+</td><td>10</td></tr> <tr><td>Total</td><td>51</td></tr> </tbody> </table> <p>Table 4. Reported deaths of people with COVID-19, by vaccination status, in the week ending 26 February 2022</p> <table border="1"> <thead> <tr> <th>Vaccination status</th> <th>Number of deaths</th> </tr> </thead> <tbody> <tr><td>Three or more doses</td><td>11</td></tr> <tr><td>Two doses</td><td>28</td></tr> <tr><td>One dose</td><td>0</td></tr> <tr><td>No dose/Unknown</td><td>12</td></tr> <tr><td>Total</td><td>51</td></tr> </tbody> </table> <p>Two children have died with COVID-19 throughout the pandemic, including one 15 year old with pneumococcal meningitis and one three-year-old with underlying genetic disorder.</p>	Age-group (years)	Number of deaths	0-9	0	10-19	0	20-29	0	30-39	0	40-49	1	50-59	1	60-69	7	70-79	13	80-89	19	90+	10	Total	51	Vaccination status	Number of deaths	Three or more doses	11	Two doses	28	One dose	0	No dose/Unknown	12	Total	51
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\*Note: From March 2022, these data are only released monthly.

<sup>38</sup> <https://www.nsw.gov.au/covid-19/stay-safe/rules>  
<sup>39</sup> <https://education.nsw.gov.au/covid-19/advice-for-families>  
<sup>40</sup> <https://www.health.gov.au/resources/collections/covid-19-vaccination-daily-rollout-update>  
<sup>41</sup> <https://twitter.com/NSWHealth>  
<sup>42</sup> <https://www.health.nsw.gov.au/Infectious/covid-19/Pages/weekly-reports.aspx>  
<sup>43</sup> <https://www.health.nsw.gov.au/Infectious/covid-19/Pages/weekly-reports.aspx>  
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# Canada (population 38 million)

### PHSM<sup>45</sup>

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

### Schools & mitigation<sup>46</sup>

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 were provided to students in Ontario for return to in-person learning.

### Vaccination coverage<sup>47</sup>

Age group (years)	1 <sup>st</sup> dose (%)	Fully vacc.* (%)	3 <sup>rd</sup> /booster (%)
5-11	56.7	34.3	-
12-17	88.2	84.2	9.8
Total pop.	84.6	80.7	45.7

\*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<sup>48, 49</sup>

Figure 3. COVID-19 cases (n=3,218,619<sup>43</sup>) in Canada by date<sup>42</sup> as of March 4, 2022, 8 am EST (by age - 10 year groups<sup>43</sup>)

Figure 5. Distribution of confirmed COVID-19 cases reported to PHAC by vaccination status as of February 13, 2022.

Figure 6. Case rate of COVID-19 by age and vaccination status, BC, July 1, 2021 to February 15, 2022.

	Ages 0-4	Ages 5-11	Ages 12-17
<b>VACCINATIONS</b>			
have 1 dose	Not eligible	55%	88%
have 2 doses	Not eligible	17%	84%
have 3/booster doses	Not eligible	18%	18%
<b>CASES</b>			
new this report	2,406	2,207	1,288
new this school year	8,345	15,362	7,524
total cases	12,318	24,532	17,910
<b>HOSPITALIZATIONS</b>			
new this report	73	24	42
new this school year	156	67	93
new hospitalized	238	104	127
<b>CRITICAL CARE</b>			
new this report	8	4	2
new this school year	16	8	7
new in critical care	24	10	14
<b>DEATHS</b>			
new this report	0	0	0
new this school year	0	0	0
total deaths	2	0	0

### Hospitalisations in children<sup>50</sup>

Figure 7. Age and gender distribution of COVID-19 cases hospitalized in Canada as of March 4, 2022, 8 am EST (n=134,106<sup>44</sup>)

British Columbia (pop. 5.1 million):

### Deaths by age group<sup>51</sup>

Figure 7. Age and gender distribution of COVID-19 cases (deceased) in Canada as of March 4, 2022, 8 am EST (n=36,244<sup>44</sup>)

There have been 33 deaths with COVID-19 in children aged 0-19y throughout the pandemic.

### Genomic surveillance<sup>52</sup>

<sup>45</sup> <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/prevention-risks.html>  
<sup>46</sup> <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/guidance-documents/planning-2021-2022-school-year-vaccination.html>  
<sup>47</sup> <https://health-infobase.canada.ca/covid-19/vaccination-coverage/>  
<sup>48</sup> <https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html>  
<sup>49</sup> <http://www.bccdc.ca/schools/news-resources/data-for-k12>  
<sup>50</sup> <https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html>  
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# Denmark

(population 5.9 million)

PHSM <sup>53</sup>	Schools & mitigation <sup>54</sup>	Vaccination coverage <sup>55</sup>	Genomic surveillance <sup>56</sup>								
<p>All restrictions lifted from February 2022.</p>	<p>Closed early for winter holidays in 2021 and returned to school in early Jan 2022.</p> <p>Standard PHSM, close contacts are not required to isolate but encouraged to get tested.</p>	<table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1<sup>st</sup> dose (%)</th> <th>2<sup>nd</sup> dose (%)</th> <th>3<sup>rd</sup>/booster (%)</th> </tr> </thead> <tbody> <tr> <td>12+</td> <td>82.4</td> <td>81.0</td> <td>61.2</td> </tr> </tbody> </table> <p>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 commenced late Nov 2021, coverage data not available.</p>	Age group (years)	1 <sup>st</sup> dose (%)	2 <sup>nd</sup> dose (%)	3 <sup>rd</sup> /booster (%)	12+	82.4	81.0	61.2	<p>Omicron is the predominant variant (&gt;99%).</p>
Age group (years)	1 <sup>st</sup> dose (%)	2 <sup>nd</sup> dose (%)	3 <sup>rd</sup> /booster (%)								
12+	82.4	81.0	61.2								
Infections by age group <sup>57,58</sup>	Hospitalisations in children <sup>59,60</sup>	Deaths by age group <sup>61,62</sup>	MIS-C <sup>63</sup>								
<p>Weekly positive cases by age and vaccine status*</p> <p>Ugentligt antal positive opdelt på alder og vaccinstatus</p> <p>Relative og absolutte antal personer med positiv SARS CoV 2 PCR test</p> <p>Viser kun ikke-tilfælde positive.</p>	<p>Weekly admissions by age and vaccine status*</p> <p>Ugentligt antal indlæggelser opdelt på alder og vaccinstatus</p> <p>Relative og absolutte antal indlæggelser med positiv SARS CoV 2 PCR test</p>	<p>Weekly deaths by age and vaccine status*</p> <p>Ugentligt antal døde opdelt på alder og vaccinstatus</p> <p>Relative og absolutte antal døde med positiv SARS CoV 2 PCR test</p>	<p>Prevalence of MIS-C and Kawasaki syndrome in children since 2017</p> <p>Figur 6. Forekomsten af MIS-C (Multi Inflammatory Syndrome in Children) og Kawasaki syndrom blandt børn siden 2017</p>								

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

<sup>53</sup> <https://en.coronasmitte.dk/rules-and-regulations>  
<sup>54</sup> <https://en.coronasmitte.dk/rules-and-regulations>  
<sup>55</sup> [https://experience.arcgis.com/experience/9874b03b114244348ef0b10f69f490b4/page/page\\_3/](https://experience.arcgis.com/experience/9874b03b114244348ef0b10f69f490b4/page/page_3/)  
<sup>56</sup> <https://covid19genomics.dk/statistics>  
<sup>57</sup> <https://covid19danmark.dk/>  
<sup>58</sup> <https://covid19.ssi.dk/overvagningsdata/ugentlige-opgorelser-med-overvaagningsdata>  
<sup>59</sup> <https://covid19danmark.dk/>  
<sup>60</sup> <https://covid19.ssi.dk/overvagningsdata/ugentlige-opgorelser-med-overvaagningsdata>  
<sup>61</sup> <https://covid19danmark.dk/>  
<sup>62</sup> <https://covid19.ssi.dk/overvagningsdata/ugentlige-opgorelser-med-overvaagningsdata>  
<sup>63</sup> <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>64</sup>	Schools & mitigation <sup>65</sup>	Vaccination coverage <sup>66</sup>																
<p>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.</p>	<p>Closed for winter holidays in Dec 2021 and returned to school in early Jan 2022.</p> <p>Standard PHSM. RAT screening for staff and secondary school students, mask wearing and close contact isolation no longer required.</p>	<p><b>Age group</b></p> <table border="1"> <thead> <tr> <th>(years)</th> <th>1<sup>st</sup> dose (%)</th> <th>2<sup>nd</sup> dose (%)</th> <th>3<sup>rd</sup>/booster (%)</th> </tr> </thead> <tbody> <tr> <td>12+</td> <td>91.6</td> <td>85.2</td> <td>66.1</td> </tr> <tr> <td>12-15</td> <td>56.7</td> <td>27.8</td> <td>0.2</td> </tr> <tr> <td>16-17</td> <td>67.8</td> <td>50.5</td> <td>9.7</td> </tr> </tbody> </table> <p>Third/booster dose available for all 18y+ and other high-risk groups. Vaccination for 16-17y commenced mid-Aug and 12-15y mid-Sep 2021 (initially as single dose). Vaccination is recommended for children aged 5-11 years who are immunocompromised.</p>	(years)	1 <sup>st</sup> dose (%)	2 <sup>nd</sup> dose (%)	3 <sup>rd</sup> /booster (%)	12+	91.6	85.2	66.1	12-15	56.7	27.8	0.2	16-17	67.8	50.5	9.7
(years)	1 <sup>st</sup> dose (%)	2 <sup>nd</sup> dose (%)	3 <sup>rd</sup> /booster (%)															
12+	91.6	85.2	66.1															
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16-17	67.8	50.5	9.7															
Infections by age group <sup>67</sup>	Hospitalisations in children <sup>68,69</sup>	Deaths by age group <sup>70</sup>																
<p><b>Figure 5: Weekly confirmed COVID-19 case rates per 100,000, by episode*, tested under Pillar 1 and Pillar 2, by age group</b></p> <p>* Each infection episode is counted separately if there is at least 91 days between positive test results. Each infection episode begins with the earliest positive specimen date.</p>	<p><b>Figure 43: Weekly hospital admission rate by age group for new (a) COVID-19 positive cases and (b) influenza reported through SARI Watch</b></p> <p>COVID-19-positive hospital admissions as a percentage of the rate during the January peak (rate in week ending 17 January 2021 = 100%), by age, England</p>	<p><b>Figure 55: Age-sex pyramid of deaths within 28 or 60 days of a positive COVID-19 test, for the past year</b></p> <p>A total of 83 deaths with COVID-19 in the past year:</p> <ul style="list-style-type: none"> <li>&lt;5y: 19</li> <li>5-9y: 7</li> <li>10-19y: 67</li> </ul>																

<sup>64</sup> <https://www.gov.uk/guidance/covid-19-coronavirus-restrictions-what-you-can-and-cannot-do>  
<sup>65</sup> <https://www.gov.uk/government/publications/actions-for-schools-during-the-coronavirus-outbreak/schools-covid-19-operational-guidance>  
<sup>66</sup> <https://coronavirus.data.gov.uk/details/vaccinations?areaType=nation&areaName=England>  
<sup>67</sup> <https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2021-to-2022-season>  
<sup>68</sup> <https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2021-to-2022-season>  
<sup>69</sup> <https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2021-to-2022-season>  
<sup>70</sup> <https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2021-to-2022-season>





# Finland

(population 5.5 million)

<p><b>PHSM<sup>71</sup></b></p> <p>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.</p>	<p><b>Schools &amp; mitigation<sup>72</sup></b></p> <p>Schools closed for winter holiday in late Dec 2021 and reopened in early Jan 2022.</p> <p>Standard PHSM, cohorting and ventilation.</p>	<p><b>Vaccination coverage<sup>73</sup></b></p> <table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1<sup>st</sup> dose (%)</th> <th>2<sup>nd</sup> dose (%)</th> <th>3<sup>rd</sup>/booster (%)</th> </tr> </thead> <tbody> <tr> <td>18+</td> <td>88.6</td> <td>86.3</td> <td>61.3</td> </tr> <tr> <td>5-11</td> <td>25.4</td> <td>6.4</td> <td>-</td> </tr> <tr> <td>12-17</td> <td>79.3</td> <td>73.2</td> <td>1.1</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 12y+ in early August and 5-11y children from late Dec 2021.</p>	Age group (years)	1 <sup>st</sup> dose (%)	2 <sup>nd</sup> dose (%)	3 <sup>rd</sup> /booster (%)	18+	88.6	86.3	61.3	5-11	25.4	6.4	-	12-17	79.3	73.2	1.1
Age group (years)	1 <sup>st</sup> dose (%)	2 <sup>nd</sup> dose (%)	3 <sup>rd</sup> /booster (%)															
18+	88.6	86.3	61.3															
5-11	25.4	6.4	-															
12-17	79.3	73.2	1.1															
<p><b>Infections by age group<sup>74</sup></b></p> <p>ECDC. Figure produced 3 March 2022. Source: TBSSy COVID-19</p>	<p><b>Hospitalisations in children<sup>75</sup></b></p> <p>ECDC. Figure produced 3 March 2022. Source: ECDC database compiled from public online sources</p> <p>Graph shows all ages combined and is not available by age group.</p>	<p><b>Deaths by age group<sup>76</sup></b></p> <p>There have been 0 deaths in children throughout the entire pandemic.</p> <p><b>Genomic surveillance<sup>77</sup></b></p> <p>Blue (Other virus lineage) Purple (S-gene deletion, most likely Omicron)</p>																

<sup>71</sup> <https://valtioneuvosto.fi/en/information-on-coronavirus/current-restrictions>  
<sup>72</sup> <https://oikm.fi/documents/1410845/65547855/MoEC+THL+recommendations+to+education+and+early+childhood+education+and+care+1.3.2022.pdf/61cad874-6b78-84e4-a885-3a61ca69cd10>  
<sup>73</sup> [https://sampo.thl.fi/pivot/prod/en/vaccreg/cov19cov/summary\\_cov19ageareacov](https://sampo.thl.fi/pivot/prod/en/vaccreg/cov19cov/summary_cov19ageareacov)  
<sup>74</sup> <https://covid19-country-overviews.ecdc.europa.eu/countries/Finland.html>  
<sup>75</sup> <https://covid19-country-overviews.ecdc.europa.eu/countries/Finland.html>  
<sup>76</sup> <https://experience.arcgis.com/experience/92e9bb33fac744c9a084381fc35aa3c7>  
<sup>77</sup> <https://thl.fi/fi/web/infektioaudit-ja-rokotukset/ajankohtaista/ajankohtaista-koronaviruksesta-covid-19/tilannekatsaus-koronaviruksesta/koronaviruksen-seuranta>





# Netherlands

(population 17.4 million)

<p><b>PHSM<sup>78</sup></b></p> <p>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.</p>	<p><b>Schools &amp; mitigation<sup>79</sup></b></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.</p>	<p><b>Vaccination coverage<sup>80</sup></b></p> <table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1<sup>st</sup> dose (%)</th> <th>Fully vacc. (%)</th> <th>3<sup>rd</sup>/booster (%)</th> </tr> </thead> <tbody> <tr> <td>5-11</td> <td>5.0</td> <td>-</td> <td>-</td> </tr> <tr> <td>12-17</td> <td>69.0</td> <td>68.0</td> <td>-</td> </tr> <tr> <td>18+</td> <td>-</td> <td>86.4</td> <td>62.1</td> </tr> </tbody> </table> <p>*Note: The Netherlands also uses the J&amp;J/Janssen vaccine which is a single-dose vaccine. Third/booster dose available for all 18y+. Vaccine offered to 12-17y from early July 2021 and 5-11y from mid-Jan 2022. Vaccination coverage data for children 5-11y is not available.</p>	Age group (years)	1 <sup>st</sup> dose (%)	Fully vacc. (%)	3 <sup>rd</sup> /booster (%)	5-11	5.0	-	-	12-17	69.0	68.0	-	18+	-	86.4	62.1		
Age group (years)	1 <sup>st</sup> dose (%)	Fully vacc. (%)	3 <sup>rd</sup> /booster (%)																	
5-11	5.0	-	-																	
12-17	69.0	68.0	-																	
18+	-	86.4	62.1																	
<p><b>Infections by age group<sup>81</sup></b></p> <p>Per 100,000 inhabitants</p> <p>Source: RIVM</p>	<p><b>Hospitalisations in children<sup>82, 83</sup></b></p> <p>Source: NICE via RIVM</p>	<p><b>Deaths by age group<sup>84</sup></b></p> <p>Value of Monday, 7 March - Source: RIVM</p>																		
<p><b>Genomic surveillance<sup>85</sup></b></p> <p>Inschatting aandeel Alpha, Beta, Gamma, Delta, OmicronBA.1, OmicronBA.2</p> <p>Source: RIVM</p>	<p><b>Hospital admissions</b></p> <p>If we look at all hospital admissions (87,709) reported by the <a href="#">NICE Foundation</a> between 1 January 2021 and 1 March 2022, 1.3% (1,131) were younger than 4 years old, 0.3% (296) were aged 4-11 years and 0.4% (297) were aged 12-17 years. The vast majority (98.0% or 85,985) 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>&lt;4</td> <td>1,131</td> <td>1.3%</td> </tr> <tr> <td>4-11</td> <td>296</td> <td>0.3%</td> </tr> <tr> <td>12-17</td> <td>297</td> <td>0.4%</td> </tr> <tr> <td>&gt;17</td> <td>85,985</td> <td>98.0%</td> </tr> <tr> <td>Total</td> <td>87,709</td> <td></td> </tr> </tbody> </table>	Age group (children)	Hospital admissions	%	<4	1,131	1.3%	4-11	296	0.3%	12-17	297	0.4%	>17	85,985	98.0%	Total	87,709		<p>The number of deaths in children is not known as the Netherlands provides a total sum of all deaths between 0-49 years.</p>
Age group (children)	Hospital admissions	%																		
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Total	87,709																			

<sup>78</sup> <https://www.government.nl/topics/coronavirus-covid-19/tackling-new-coronavirus-in-the-netherlands/coronavirus-measures-in-brief>  
<sup>79</sup> <https://www.rivm.nl/en/coronavirus-covid-19/children-and-covid-19>  
<sup>80</sup> <https://coronadashboard.government.nl/landelijk/vaccinaties>  
<sup>81</sup> <https://coronadashboard.government.nl/landelijk/positief-geteste-mensen>  
<sup>82</sup> <https://coronadashboard.government.nl/landelijk/ziekenhuis-opnames>  
<sup>83</sup> <https://www.rivm.nl/en/coronavirus-covid-19/children-and-covid-19/research-results-ggd-data>  
<sup>84</sup> <https://www.rivm.nl/en/coronavirus-covid-19/landelijk/sterfte>  
<sup>85</sup> <https://www.rivm.nl/en/coronavirus-covid-19/virus/variants>

# Scotland, UK

(population 5.5 million)

PHSM <sup>86</sup>	Schools & mitigation <sup>87</sup>	Vaccination coverage <sup>88</sup>																
<p>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.</p>	<p>Closed for winter holidays in late Dec 2021 and returned to school in early Jan 2022.</p> <p>Standard PHSM. RAT screening for staff and secondary school students, mask wearing and close contact isolation no longer required.</p>	<table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1<sup>st</sup> dose (%)</th> <th>2<sup>nd</sup> dose (%)</th> <th>3<sup>rd</sup>/booster (%)</th> </tr> </thead> <tbody> <tr> <td>12+</td> <td>92.8</td> <td>87.0</td> <td>72.2</td> </tr> <tr> <td>12-15</td> <td>70.6</td> <td>42.6</td> <td>1.1</td> </tr> <tr> <td>16-17</td> <td>83.9</td> <td>59.4</td> <td>14.0</td> </tr> </tbody> </table> <p>Third/booster dose available for all 18y+ and other high-risk groups. Vaccination for 16-17y commenced mid-Aug and 12-15y mid-Sep 2021 (initially as single dose). Vaccination is recommended for children aged 5-11 years who are immunocompromised.</p>	Age group (years)	1 <sup>st</sup> dose (%)	2 <sup>nd</sup> dose (%)	3 <sup>rd</sup> /booster (%)	12+	92.8	87.0	72.2	12-15	70.6	42.6	1.1	16-17	83.9	59.4	14.0
Age group (years)	1 <sup>st</sup> dose (%)	2 <sup>nd</sup> dose (%)	3 <sup>rd</sup> /booster (%)															
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Infections by age group <sup>89</sup>	Hospitalisations in children <sup>90</sup>	Deaths by age group <sup>91,92</sup>																
<p><b>Figure 7: Weekly total combined PCR and LFD cases (including reinfections) per 100,000 population in Scotland by age group, by specimen date. Data to 26 February 2022<sup>93</sup>.</b></p> <p>Omicron is the dominant variant in Scotland.</p>	<p><b>Hospital admissions 'with' COVID-19 (3-week rolling average)</b></p> <p>*Please note that positive tests include first LFD tests from 5 January 2022.</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><b>Figure 12: Weekly total number of deaths where Covid-19 was mentioned on the death certificate, by age group. Data to the week ending 27 February 2022.</b></p> <p>There have been 5 deaths due to COVID-19 in children aged 0-14y in the past year.</p>																

<sup>86</sup> <https://www.gov.scot/coronavirus-covid-19/>  
<sup>87</sup> <https://www.gov.uk/government/publications/actions-for-schools-during-the-coronavirus-outbreak/schools-covid-19-operational-guidance>  
<sup>88</sup> <https://coronavirus.data.gov.uk/details/vaccinations?areaType=nation&areaName=Scotland>  
<sup>89</sup> <https://www.gov.scot/collections/coronavirus-covid-19-the-state-of-the-epidemic/>  
<sup>90</sup> [https://scotland.shinyapps.io/phs-covid19-education/\\_w\\_852fb58e/](https://scotland.shinyapps.io/phs-covid19-education/_w_852fb58e/)  
<sup>91</sup> <https://www.gov.scot/collections/coronavirus-covid-19-the-state-of-the-epidemic/>  
<sup>92</sup> <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>

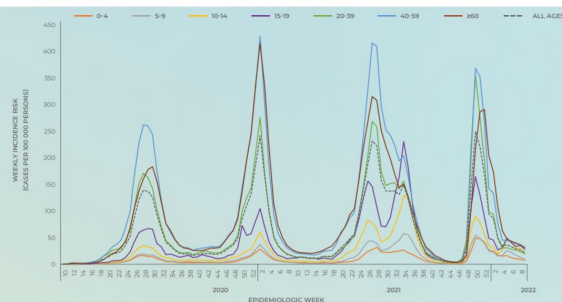
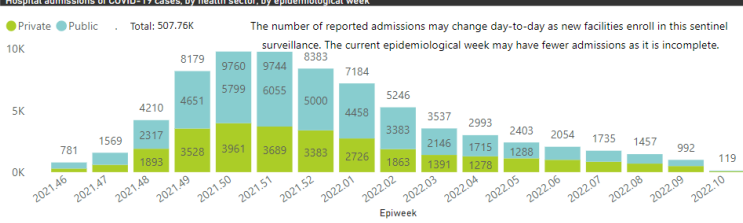
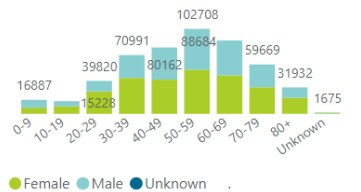
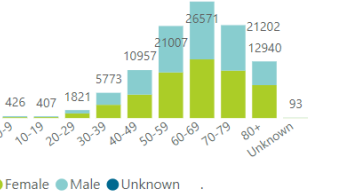
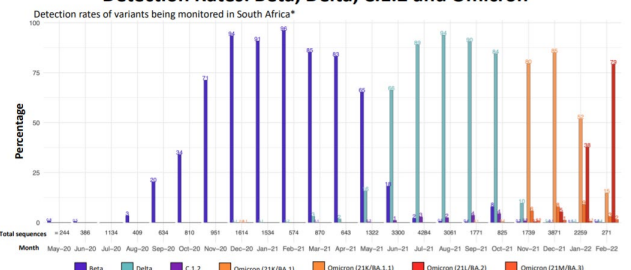
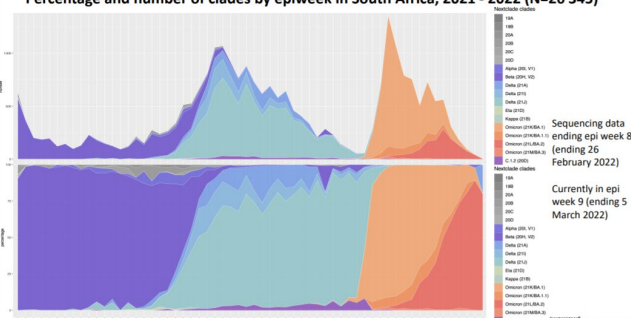
# Singapore (population 5.5 million)

PHSM <sup>93</sup>	Schools & mitigation <sup>94</sup>	Vaccination coverage <sup>95</sup>																																												
<p>From early Jan 2022, mandatory masks indoors &amp; outdoors, TTIQ, hybrid work arrangements, 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, RAT tests for symptomatic students and staff and 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>1<sup>st</sup> dose (%)</th> <th>2<sup>nd</sup> dose (%)</th> <th>3<sup>rd</sup>/booster (%)</th> </tr> </thead> <tbody> <tr> <td>Total pop.</td> <td>92.0</td> <td>91.0</td> <td>69.0</td> </tr> </tbody> </table> <p>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 will apply to all 12-17y from 14 Mar 2022.</p>	Age group (years)	1 <sup>st</sup> dose (%)	2 <sup>nd</sup> dose (%)	3 <sup>rd</sup> /booster (%)	Total pop.	92.0	91.0	69.0																																				
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Infections by age group <sup>96</sup>	Hospitalisations in children <sup>97</sup>	Deaths by age group <sup>98</sup>																																												
<p>As of 07 March 2022, 12pm Number of Local Cases by Age</p> <p>13371 1880 804 4575 3445 1386 1283</p> <p>08/02/2022 22/02/2022 07/03/2022</p> <p>— No. of Cases — 70 years old and above — 60 - 69 years old — 40 - 59 years old — 20 - 39 years old — 12 - 19 years old — 0 - 11 years old</p>	<p>As of 07 March 2022, 12pm Hospitalised Patients by Age Groups</p> <p>1225 140 207 738</p> <p>08/02/2022 22/02/2022 07/03/2022</p> <p>— Total Cases — 70+ years old — 60-69 years old — 40-59 years old — 20-39 years old — 12-19 years old — 0-11 years old</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>Proportion (%) of cases who died, by age and vaccination status</p> <p>There have been 0 deaths in children throughout the entire pandemic.</p> <table border="1"> <thead> <tr> <th>Age</th> <th>Non-Fully Vaccinated</th> <th>Fully Vaccinated (Without Booster)</th> <th>Fully Vaccinated (With Booster)</th> </tr> </thead> <tbody> <tr> <td>0-12</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>13-19</td> <td>0.0</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>20-29</td> <td>0.025</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>30-39</td> <td>0.051</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>40-49</td> <td>0.12</td> <td>0.011</td> <td>0.0</td> </tr> <tr> <td>50-59</td> <td>1.1</td> <td>0.065</td> <td>0.0</td> </tr> <tr> <td>60-69</td> <td>3.7</td> <td>0.21</td> <td>0.037</td> </tr> <tr> <td>70-79</td> <td>8.8</td> <td>0.74</td> <td>0.060</td> </tr> <tr> <td>80+</td> <td>19</td> <td>3.0</td> <td>0.45</td> </tr> <tr> <td>Total</td> <td>0.55</td> <td>0.11</td> <td>0.028</td> </tr> </tbody> </table> <p>1 May 2021 to 14 Feb 2022</p>	Age	Non-Fully Vaccinated	Fully Vaccinated (Without Booster)	Fully Vaccinated (With Booster)	0-12	0.0	0.0	0.0	13-19	0.0	0.0	0.0	20-29	0.025	0.0	0.0	30-39	0.051	0.0	0.0	40-49	0.12	0.011	0.0	50-59	1.1	0.065	0.0	60-69	3.7	0.21	0.037	70-79	8.8	0.74	0.060	80+	19	3.0	0.45	Total	0.55	0.11	0.028
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<sup>93</sup> <https://www.moh.gov.sg/covid-19-phase-advisory>  
<sup>94</sup> <https://www.moe.gov.sg/faqs-covid-19-infection>  
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<sup>97</sup> <https://www.moh.gov.sg/>  
<sup>98</sup> <https://www.moh.gov.sg/covid-19/statistics>

# South Africa

(population 60.4 million)

<p><b>PHSM<sup>99</sup></b></p> <p>Since Feb 2022, asymptomatic cases are not required to isolate, mandatory masks 6y+ with exceptions. Previous curfew and density limits lifted.</p>	<p><b>Schools &amp; mitigation<sup>100</sup></b></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 and visitor limits.</p>	<p><b>Vaccination coverage<sup>101</sup></b></p> <p><b>Age group (years)</b>      <b>Fully vaccinated* (%)</b></p> <p>18+                      48.1</p> <p>*Note: South Africa also uses the J&amp;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><b>Infections by age group<sup>102</sup></b></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 – 26 February 2022 (n = 4 538 696, 34 562 missing age)</p>	<p><b>Hospitalisations in children and deaths by age group<sup>103</sup></b></p> <p>Hospital admissions of COVID-19 cases, by health sector, by epidemiological week</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: 507.76K</p>  <p>Deaths to date by age group and sex Total: 101.20K</p>  <p>Total of 833 deaths with COVID-19 in children 0-19y throughout the entire pandemic. Deaths in children account for &lt;1% of all deaths in South Africa.</p>	<p><b>Genomic surveillance<sup>104</sup></b></p> <p>Detection Rates: Beta, Delta, C.1.2 and Omicron</p> <p>Detection rates of variants being monitored in South Africa*</p>  <p>Total sequences = 244 386 1134 409 634 810 951 1614 1034 574 870 940 1322 3300 4284 3061 1771 825 1739 3071 2259 271</p> <p>*Bars represent percentage prevalence of variant for the month; total sequences collected for the month are given below</p> <p>Omicron has been dominant since November (&gt;80% in November, &gt;99% in December and January). BA.2 increased in frequency in January, making up 38% of genomes. BA.2 dominates in February (79%). BA.3 continues to be present at low levels.</p> <p>Percentage and number of clades by epiweek in South Africa, 2021 - 2022 (N=26 345)</p>  <p>Sequencing data ending epi week 8 (ending 26 February 2022)</p> <p>Currently in epi week 9 (ending 5 March 2022)</p> <p>Delta dominated in South Africa until October at &gt;80%. Omicron has dominated from November onwards.</p>

<sup>99</sup> <https://www.gov.za/covid-19/resources/regulations-and-guidelines-coronavirus-covid-19>  
<sup>100</sup> <https://www.gov.za/covid-19/resources/regulations-and-guidelines-coronavirus-covid-19>  
<sup>101</sup> <https://sacoronavirus.co.za/latest-vaccine-statistics/>  
<sup>102</sup> <https://www.nicd.ac.za/diseases-a-z-index/disease-index-covid-19/surveillance-reports/weekly-epidemiological-brief/>  
<sup>103</sup> <https://www.nicd.ac.za/diseases-a-z-index/disease-index-covid-19/surveillance-reports/daily-hospital-surveillance-datcov-report/>  
<sup>104</sup> <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><b>PHSM<sup>105</sup></b></p> <p>The US CDC recommends indoor mask wearing for all aged 2y+ in areas of high community transmission, physical distancing, hand &amp; surface hygiene, TTIQ, but adoption varies by State/Territory.</p>	<p><b>Schools &amp; mitigation<sup>106</sup></b></p> <p>Closed for winter holidays in late Dec 2021 and reopened from early Jan 2022.</p> <p>Standard PHSM, cohorting, masks, PCR &amp; RAT screening, but adoption varies by State/Territory.</p>	<p><b>Vaccination coverage<sup>107, 108</sup></b></p> <table border="1"> <thead> <tr> <th>Age group (years)</th> <th>1<sup>st</sup> dose (%)</th> <th>Fully vaccinated* (%)</th> <th>3<sup>rd</sup>/booster (%)</th> </tr> </thead> <tbody> <tr> <td>5-11</td> <td>33.4</td> <td>26.4</td> <td>-</td> </tr> <tr> <td>12-17</td> <td>67.8</td> <td>57.8</td> <td>-</td> </tr> <tr> <td>18+</td> <td>88.0</td> <td>75.1</td> <td>47.5</td> </tr> </tbody> </table> <p>*Note: The US also uses the J&amp;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 and 12y+ from early Jan 2022. Vaccination offered to 12y+ from May and 5-11y from Nov 2021.</p>		Age group (years)	1 <sup>st</sup> dose (%)	Fully vaccinated* (%)	3 <sup>rd</sup> /booster (%)	5-11	33.4	26.4	-	12-17	67.8	57.8	-	18+	88.0	75.1	47.5														
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<p><b>Infections by age group<sup>109</sup></b></p> <p>COVID-19 Weekly Cases per 100,000 Population by Age Group, United States March 01, 2020 - March 12, 2022*</p>	<p><b>MIS-C<sup>110</sup></b></p> <p>Daily MIS-C Cases and COVID-19 Cases Reported to CDC (7-Day Moving Average)</p> <p>The shaded area on the right side of the figure represents the most recent six weeks of data, for which reporting of MIS-C cases is still incomplete.</p>	<p><b>Deaths by age group<sup>111, 112</sup></b></p> <p>COVID-19 Weekly Deaths per 100,000 Population by Age Group, United States March 01, 2020 - March 12, 2022*</p>	<p><b>Genomic surveillance<sup>113</sup></b></p> <table border="1"> <thead> <tr> <th>WHO label</th> <th>Lineage #</th> <th>US Class</th> <th>%Total</th> <th>95%PI</th> </tr> </thead> <tbody> <tr> <td>Omicron</td> <td>BA.1.1</td> <td>VOC</td> <td>74.8%</td> <td>70.3-79.4%</td> </tr> <tr> <td></td> <td>B.1.1.529</td> <td>VOC</td> <td>17.2%</td> <td>14.4-20.8%</td> </tr> <tr> <td></td> <td>BA.2</td> <td>VOC</td> <td>8.3%</td> <td>6.3-10.7%</td> </tr> <tr> <td>Delta</td> <td>B.1.617.2</td> <td>VOC</td> <td>0.0%</td> <td>0.0-0.0%</td> </tr> <tr> <td>Other</td> <td>Other*</td> <td></td> <td>0.0%</td> <td>0.0-0.0%</td> </tr> </tbody> </table>	WHO label	Lineage #	US Class	%Total	95%PI	Omicron	BA.1.1	VOC	74.8%	70.3-79.4%		B.1.1.529	VOC	17.2%	14.4-20.8%		BA.2	VOC	8.3%	6.3-10.7%	Delta	B.1.617.2	VOC	0.0%	0.0-0.0%	Other	Other*		0.0%	0.0-0.0%
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<p><b>Hospitalisations in children<sup>115</sup></b></p> <p>COVID-NET - United 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>	<p><b>MIS-C Patients By Age Group</b></p> <p>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.</p>	<p>Total 865 deaths with COVID-19 in children 0-17y throughout the entire pandemic, accounting for &lt;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 Territories<sup>114</sup>: e.g. Texas (n=127); Arizona (n=61); California (n=61); Tennessee (n=38); Puerto Rico (n=9); Guam (n=5); Hawaii (n=1); Alaska (n=2).</p> <p>Omicron is the dominant variant in the US.</p>																															

<sup>105</sup> <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html>  
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<sup>107</sup> [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)  
<sup>108</sup> <https://covid.cdc.gov/covid-data-tracker/#vaccination-demographics-trends>  
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<sup>110</sup> <https://covid.cdc.gov/covid-data-tracker/#mis-national-surveillance>  
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<sup>112</sup> [https://www.cdc.gov/nchs/nvss/vsrr/covid\\_weekly/index.htm](https://www.cdc.gov/nchs/nvss/vsrr/covid_weekly/index.htm)  
<sup>113</sup> <https://covid.cdc.gov/covid-data-tracker/#variant-proportions>  
<sup>114</sup> <https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/>  
<sup>115</sup> [https://gis.cdc.gov/grasp/COVIDNet/COVID19\\_3.html](https://gis.cdc.gov/grasp/COVIDNet/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>116</sup>



Currently, children under age five are not eligible to be vaccinated.  
Last Updated: Mar 07, 2022  
Data source: VTrcks, 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

<sup>116</sup> <https://covid.cdc.gov/covid-data-tracker/#vaccinations-cases-trends>



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<https://www.mcri.edu.au/research/themes/infection-and-immunity/asia-pacific-health>