

SARS-CoV-2 laboratory surveillance in the Western Pacific Region

As of week 14, 2024 (the week ending on 7 April 2024), a total of 9 980 specimens tested for SARS-CoV-2 were submitted to FluNet from nine countries and areas in the Western Pacific Region. The percent positivity calculated was 7.36% (**Figure 1**). The country-specific number of testing and calculated positivity rate in week 14 of 2024 are presented in **Table 1** below. Compared to the previous week, Australia and Singapore reported an increasing trend in their SARS-CoV-2 positivity rate. Percent positivity is calculated using the numbers of samples positive and processed for SARS-CoV-2. The data are provided to FluNet by National influenza Centres (NICs) of the [Global Influenza Surveillance and Response System \(GISRS\)](#) and other national influenza reference laboratories collaborating actively with GISRS. More information on FluNet and its data sharing mechanism are available [here](#).



Figure 1: SARS-CoV-2 tested specimens reported to FluNet from countries, areas and territories, Western Pacific Region, 2020-2024

(Source: [GISRS surveillance data reported to FluNet](#))

Table 1: Weekly number of testing and positive rate reported to FluNet, week 14

(Source: [Integrated influenza and other respiratory viruses surveillance dashboard](#))

Counties and areas (most recent week of data)	Number of testing for SARS-CoV-2	SARS-CoV-2 positivity rate (%)	Trend
Australia (14 of 2024)	2 050	4.82	↑
Cambodia (14 of 2024)	95	1.05	↓
China (14 of 2024)	6 730	8.35	↓
Republic of Korea (14 of 2024)	434	9.68	↓
Lao People's Democratic Republic (14 of 2024)	93	4.30	↓
Mongolia (14 of 2024)	243	2.06	↓
New Zealand (14 of 2024)	68	5.88	↓
Papua New Guinea (14 of 2024)	8	0.00	-
Singapore (14 of 2024)	259	6.95	↑
Viet Nam (10 of 2024)	5	0.00	-

Notes: The quality and consistency of this surveillance data are influenced by changes in health seeking behaviours, routine in sentinel sites, national testing priorities and capacities, and public health and social measures implementation. In addition, test percent positivity from sentinel surveillance can be very different than that of universal surveillance due to varying objectives, case definitions and coverage. Therefore, the data presented here should be interpreted carefully. The data is also subject to change over time, and there can be difference from national public health authorities and other sources.

Tracking SARS-CoV-2 variants in the Western Pacific Region

As of 24 April 2024, relative frequency of circulating variants in the Western Pacific Region is as follows: JN.1 at 84.4%, B.1.1.529 10.7%, EG.5 at 4.6%, and BA.286 at 0.4% (**Figure 2**). JN.1 has become a dominant variant in the Region since January 2024. The country-specific data is available below for certain countries where the information is routinely updated.

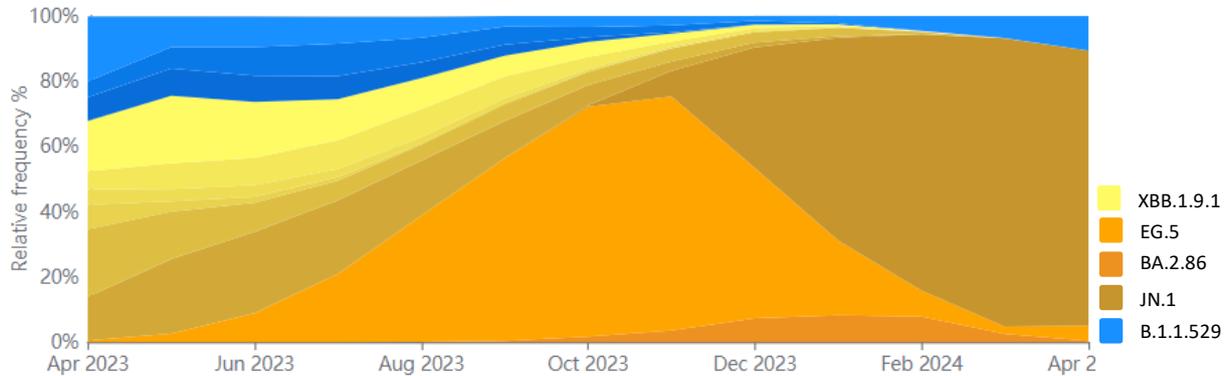


Figure 2: Relative frequency (%) of circulating variants in the Western Pacific Region, 2023-2024

(Source: [GISAIID hCoV-19 Variants Dashboard](#))

COVID-19 surveillance summary

COVID-19 surveillance in the WHO Western Pacific Region reflects the ongoing transition of Member States from the pandemic emergency response to sustainable, integrated, and longer-term COVID-19 disease management. In the current transitional phase, some countries have already integrated their COVID-19 surveillance into existing systems while other countries maintain COVID-19 surveillance from the emergency phase of the pandemic. Due to these various approaches, population groups, data formats, and reporting mechanisms of COVID-19 surveillance are different across countries.

In the meantime, guided by standing recommendations, WHO continues to support Member States in monitoring, assessing and responding to the risks posed by COVID-19. This COVID-19 surveillance summary, therefore, covers countries and areas where routine surveillance is conducted and the surveillance data is publicly available. A detailed description of COVID-19 surveillance in each country included in the report is available in Annex 1. The surveillance data should be interpreted with caution, taking into account various surveillance methodologies and reporting systems described in Annex 1.

Countries in the temperate zone of the Northern Hemisphere

[China – severe cases and deaths \(monthly update\)](#)

From 1 to 31 March 2024, 588 new severe COVID-19 cases and 26 deaths were reported from 31 provinces, autonomous regions and municipalities, and Xinjian Production and Construction Corps in China (**Figure 3**), which is an increase compared to 358 severe cases and 22 deaths in February 2024. From 1 to 31 March 2024, JN.1 was the most prevalent variant in China ([source](#)).

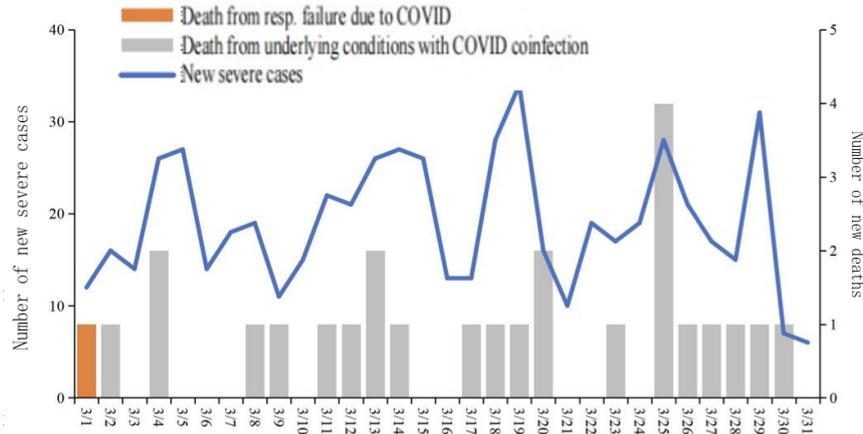


Figure 3: Severe COVID-19 cases and deaths reported in China, March 2024
(Source: China National disease Control and Prevention Administration)

Japan – COVID-19 cases (sentinel surveillance)

In week 14 of 2024, the weekly number of cases reported by sentinel hospital sites was 4.26, a decrease from 5.10 cases in week 13 (Figure 4). The weekly number of new hospital admissions per sentinel was 1 790, a decrease by 136 compared to the previous week (Figure 5). As of week 13 of 2024, BA.2.86.1 was the most prevalent variant in Japan, accounting for 40.9% of sequenced samples, followed by JN.1 accounting for 24.4% (source).

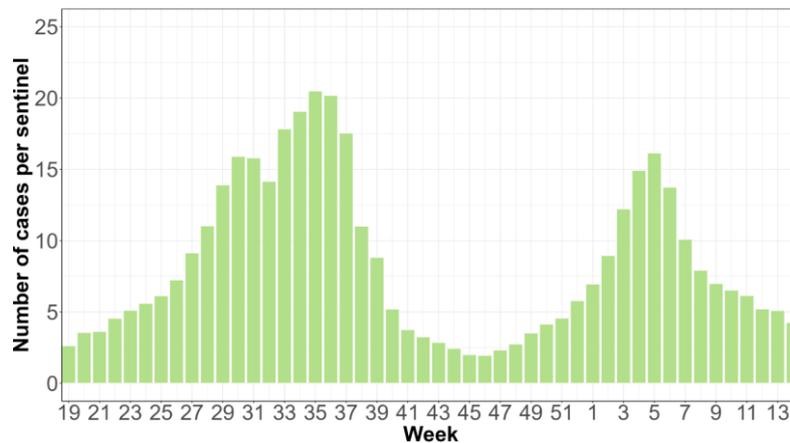


Figure 4: Weekly number of COVID-19 cases reported per sentinel hospital site in Japan, 2023-2024
(Source: Japan National Institute of Infectious Diseases)

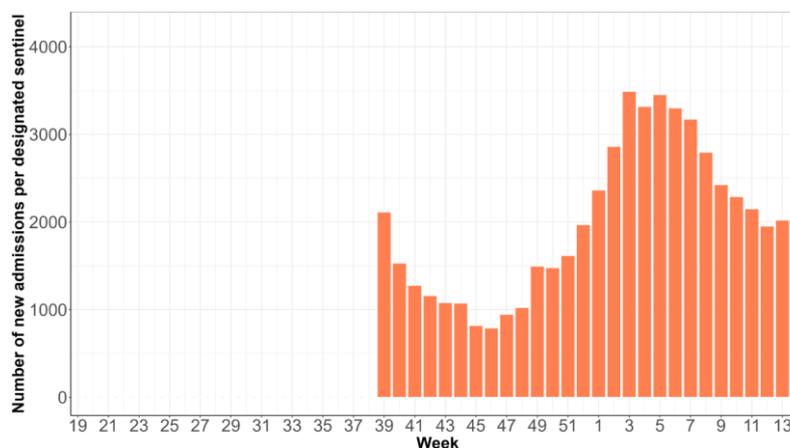


Figure 5: Weekly number of hospitalizations reported from sentinel sites in Japan, 2023-2024
(Source: Japan National Institute of Infectious Diseases)

Republic of Korea – COVID-19 cases (sentinel surveillance)

In week 15 (7 to 13 April 2024), the weekly number of positive COVID-19 cases was 2 283, which is a decrease by 23.0% compared to the previous week (Figure 6). As of week 15, JN.1 is the most prevalent variant in Republic of Korea, accounting for over 83.7% of sequenced samples (source).

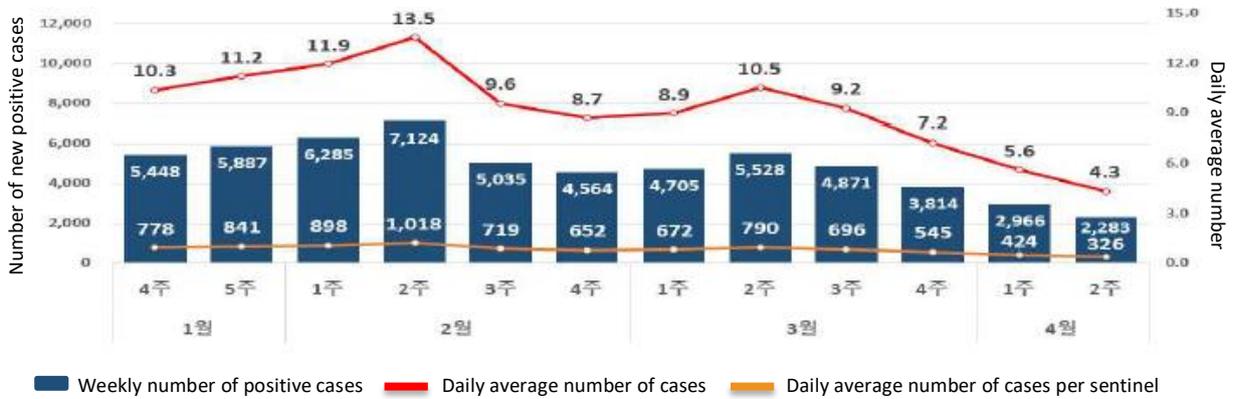


Figure 6: Weekly number, daily average number, and daily average number per sentinel of COVID-19 cases in Republic of Korea, January – April 2024
(Source: Korea Disease Control and Prevention Agency)

Countries/areas in the tropical zone

Hong Kong SAR, China – laboratory-confirmed COVID-19 cases, severe cases, and deaths

In week 15 of 2024, the weekly number of newly recorded positive nucleic acid test laboratory detections for SARS-CoV-2 virus was 780 as compared to 696 in the preceding week (Figure 7). The weekly number of severe COVID-19 cases including deaths with cause of death preliminarily assessed to be related to COVID-19 was 24 compared to 34 in the preceding week (Figure 8). As of 10 April 2024, JN.1 and its descendant lineages remained the most prevalent in Hong Kong SAR, China, comprising 77.1% of all characterized specimens (source).

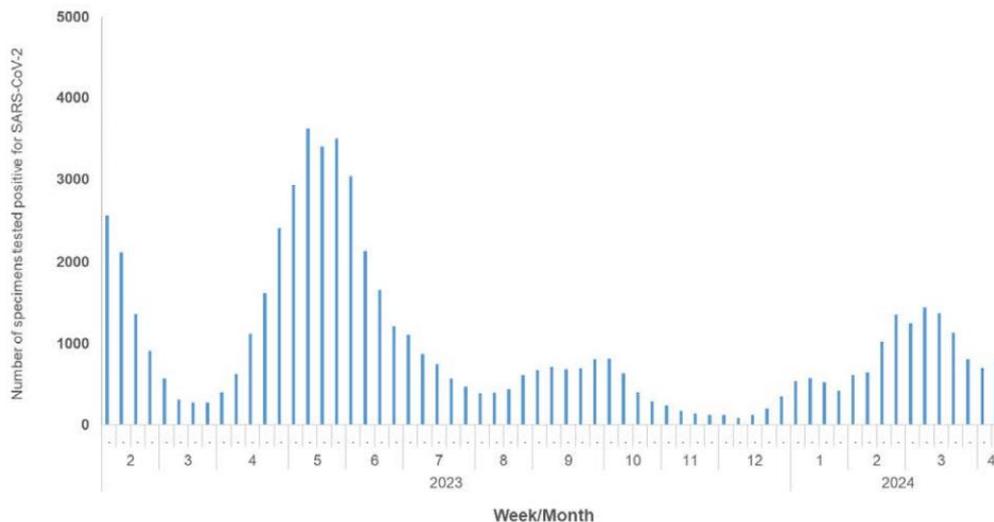


Figure 7: Weekly number of positive nucleic acid test laboratory detections for SARS-CoV-2 virus
(Source: Hong Kong Centre for Health Protection)

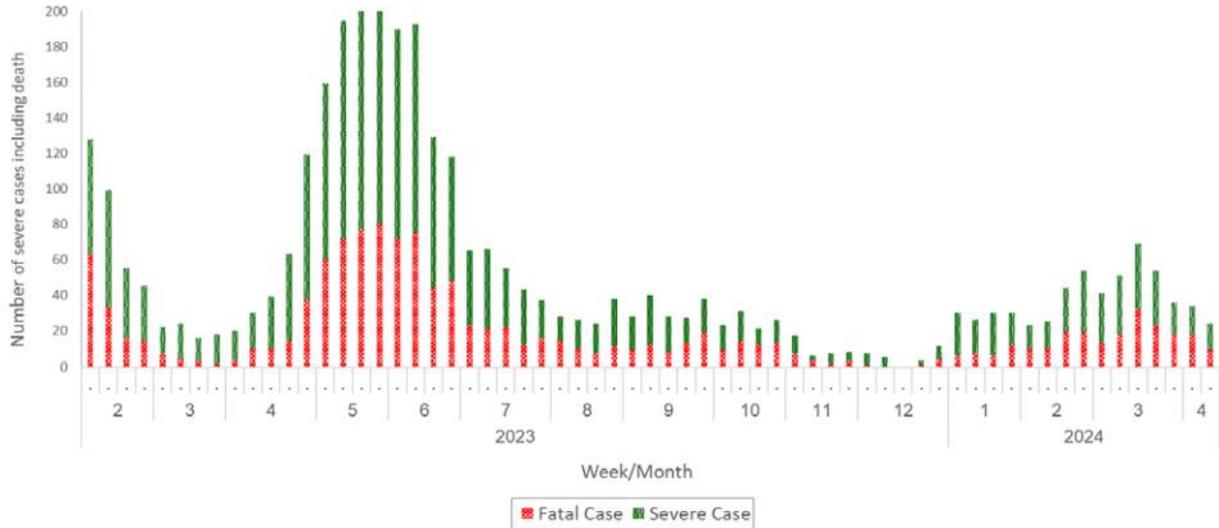


Figure 8: Weekly number of Severe COVID-19 cases including deaths
(Source: Hong Kong Centre for Health Protection)

Countries in the temperate zone of the southern hemisphere

Australia – COVID-19 hospital admission and deaths

A decreasing trend has continued in COVID-19 hospital admissions and deaths since early January 2024. As of 10 April 2024, 7-day moving average of cases admitted to hospital was 31, compared to 77 on 10 March 2024 (Figure 10). The 7-day moving average of deaths remains low with less than five since 6 March 2024 (Figures 11).

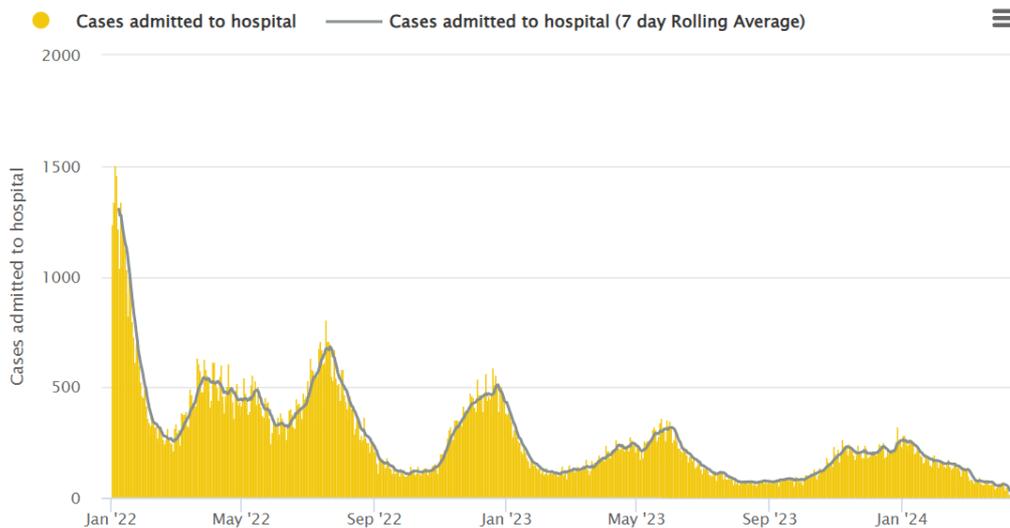


Figure 10: COVID-19 cases admitted to hospital in Australia by date of diagnosis, 2022-2024
(Source: National Notifiable Diseases Surveillance System, Australian Department of Health)

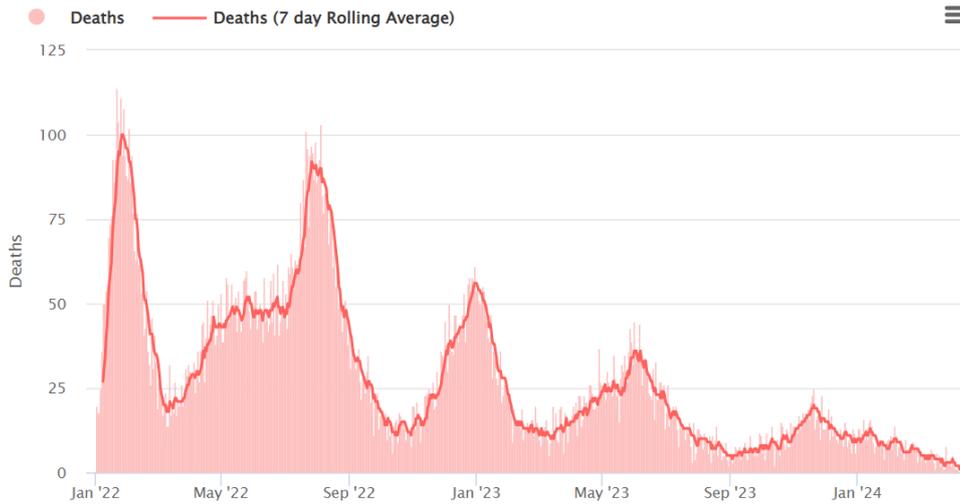


Figure 11: COVID-19 associated deaths in Australia, 2022-2024

(Source: National Notifiable Diseases Surveillance System, Australian Department of Health)

* Notes: National Notifiable Diseases Surveillance System (NNDSS) hospital admissions and deaths data may have a delay, particularly for the last two weeks; recent data will be subject to revision.

New Zealand – COVID-19 cases and deaths

As of week 15 of 2024, a decreasing trend has continued in COVID-19 cases in New Zealand While COVID-19 attributed deaths have shown an uptick. The 7-day moving average of daily cases and deaths per 100,000 population remained low at 7.5 cases (Figure 11) and less than 0.06 deaths (Figure 12).

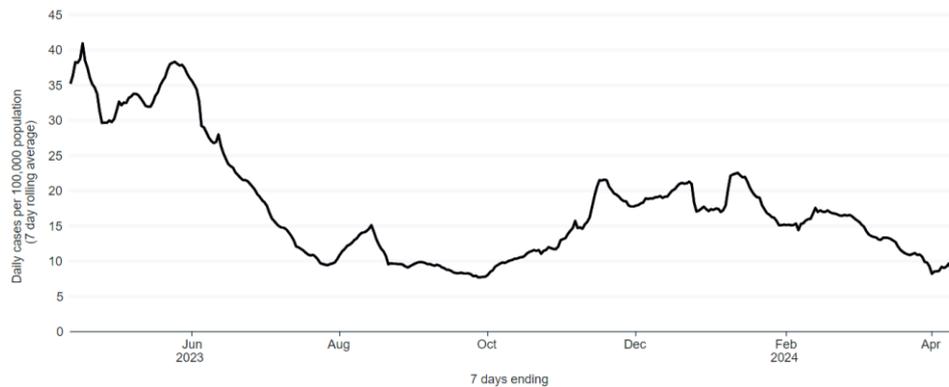


Figure 11: 7-day moving average of daily cases per 100,000 population in New Zealand, 2023-2024

(Source: Te Whatu Ora, Health New Zealand)

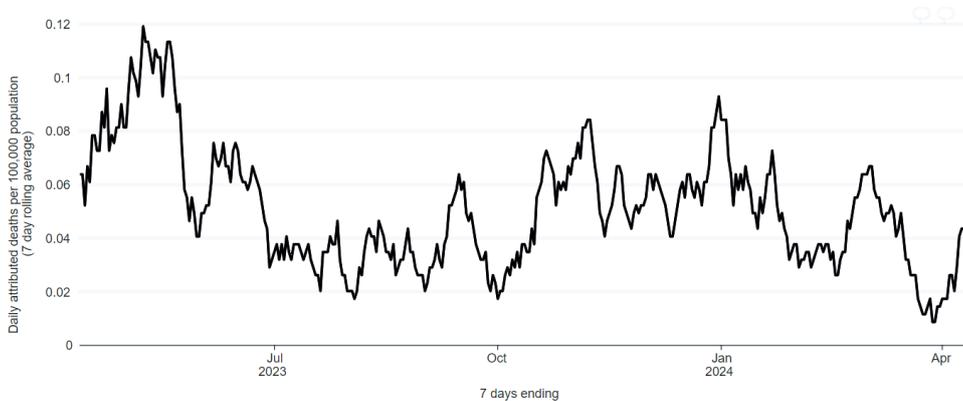


Figure 12: 7-day moving average of daily COVID-19 attributed deaths per 100,000 population in New Zealand, 2023-2024

(Source: Te Whatu Ora, Health New Zealand)

Pacific Island Countries and Areas (PICs) – COVID-19 cases

From 8 to 14 April 2024, two out of 21 PICs reported COVID-19 cases: Commonwealth of the Northern Mariana Islands and Palau (Table 2). The 7-day rolling average of cases in 10 PICs has increased since the beginning of April 2024 (Figure 13).

Table 2: Weekly and cumulative number of COVID-19 cases and deaths in PICs, 8 to 14 April 2024
(Source: Pacific COVID-19 Weekly Epidemiological Update, WHO Division of Pacific Technical Support)

Country/Area	Cases			Deaths			Date of last report
	Cumulative weekly	YTD	Pandemic cumulative	Cumulative weekly	YTD	Pandemic cumulative	
American Samoa		74	8,359		34	34	08-Oct-23
Cook Islands		622	7,324		2	2	24-Mar-24
Fiji		297	69,047		885	885	29-Jun-23
French Polynesia	0	1344	79,301		0	650	07-Apr-24
Guam		2285	52,287		419	419	29-Dec-23
Kiribati		1655	5,085		24	24	08-Aug-23
Marshall Islands, Republic of the (RMI)		631	16,178		17	17	26-Mar-24
Micronesia, Federated States of (FSM)		-5822	16,247		17	17	02-Mar-24
Nauru		772	5,393		1	1	05-Mar-23
New Caledonia		487	80,064		314	314	29-May-23
Niue		601	1,059		0	0	22-Feb-24
Northern Mariana Islands, Commonwealth of the (CNMI)	19	3212	16,448	0	41	41	13-Apr-24
Palau	16	364	6,332		10	10	14-Apr-24
Pitcairn Islands		0	4		0	0	31-Dec-22
Samoa		1075	17,057		31	31	25-Feb-24
Solomon Islands		4391	25,954		199	199	01-Oct-23
Tokelau		75	80		0	0	14-Jul-23
Tonga		471	16,958		0	12	31-Mar-24
Tuvalu		164	2,943		1	1	16-Jun-23
Vanuatu		5	12,019		14	14	24-Sep-23
Wallis and Futuna		333	3,760		9	9	29-Feb-24

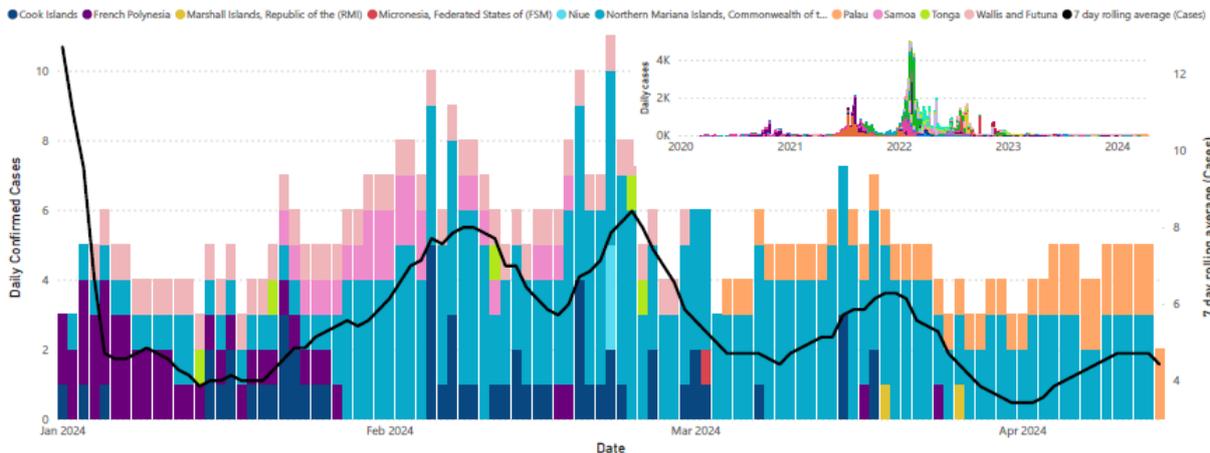


Figure 13: Epidemic curve of COVID-19 in nine PICs since 1 January 2024 with inset-epidemic curve for the full pandemic period
(Source: Pacific COVID-19 Weekly Epidemiological Update, WHO Division of Pacific Technical Support)

Global COVID-19 situation updates

[Integrated influenza and other respiratory viruses surveillance outputs](#)

[COVID-19 monthly epidemiological updates](#)

[Global COVID-19 dashboard](#)

Others:

- Report of the Review Committee regarding standing recommendations for COVID-19 [Link](#)
- Tracking SARS-CoV-2 variants [Link](#)
- JN.1 updated risk evaluation [Link](#)

Annex 1. Summary of COVID-19 surveillance in countries and areas in the Western Pacific Region as of April 2024

Countries/areas	Case definition	Surveillance system description	Reference
		Case surveillance	
Australia	<p>Confirmed case: Newly diagnosed cases with laboratory definitive evidence</p> <ul style="list-style-type: none"> Laboratory definitive evidence: Detection of SARS-CoV-2 by nucleic amplification acid testing (NAAT); or isolation of SARS-CoV-2 in cell culture, with confirmation using a NAAT; or SARS-CoV-2 IgG seroconversion or a four-fold or greater increase in SARS-CoV-2 antibodies of any immunoglobulin subclass including 'total' assays in acute and convalescent sera, in the absence of vaccination. <p>Probable case: Individuals who have laboratory suggestive evidence</p> <ul style="list-style-type: none"> Laboratory suggestive evidence: Detection of SARS-CoV-2 by rapid antigen testing (RAT). 	<p>COVID-19 is a <u>nationally notifiable disease</u>; The National Notifiable Diseases Surveillance System (NNDSS) coordinates national surveillance data for diseases on the National Notifiable Disease List. <u>Every day, the state and territory health authorities report to the NNDSS</u> about new cases of notifiable diseases.</p> <p>(Reporting) COVID-19 data <u>includes both confirmed and probable cases</u> reported to NNDSS. <u>Six jurisdictions have stopped collecting probable cases</u>: Victoria on 1 July 2023, Queensland on 1 September 2023, New South Wales on 1 October 2023, Western Australia on 9 October, NT on 21 October 2023 and ACT from 22 December 2023. Point of care tests administered in healthcare or aged care settings continue to be reported to the NNDSS by some jurisdictions.</p>	1, 2
China	<p>Diagnosis should be made based on comprehensive analysis of epidemiological history, clinical manifestations and laboratory tests.</p> <ul style="list-style-type: none"> Have clinical manifestations associated with the 2019-nCoV infection; Have one or more of the following pathogenic and serological result: <ol style="list-style-type: none"> (1) A positive PCR detection of the 2019-nCoV; (2) A positive antigen detection of the 2019-nCoV; (3) A positive 2019-nCoV isolation and cultivation; (4) Four times or more elevated levels of 2019-nCoV-specific IgG antibodies in the recovery phase than in the acute phase. 	<p>COVID-19 is <u>a class B notifiable disease</u>:</p> <p>(Case reporting) Medical institutions at all levels and in all categories should report cases in time according to regulations and laws, in line with relevant requirements for information reporting. COVID-19 infection and asymptomatic cases need to be reported directly on China's network-based infectious disease reporting system within 24 hours of diagnosis. For severe, critical and death cases and other special cases identified, disease prevention and control agencies should conduct epidemiological investigations in a timely manner and upload results as required.</p> <p>(Pathogen monitoring) viral gene sequencing is analyzed for patient samples that test positive for COVID-19, which are collected from outpatients admitted to sentinel hospitals, severe and death cases in emblematic cities, as well as inbound travelers entering through emblematic ports.</p> <p>(Sentinel surveillance) outpatient influenza-like illness (ILI) and inpatient severe acute respiratory infection (SARI) cases will be monitored for COVID-19 in 554 sentinel hospitals for national influenza surveillance.</p>	3, 4, 5

		(Surveillance for pneumonia of unknown causes) Cases also can be detected and reported based on the National Plan for Surveillance, Screening and Management of Patients with Pneumonia of Unknown Causes	
Hong Kong SAR, China	Confirmed case: Laboratory confirmed cases using PCR or antigen-detecting rapid diagnostic tests	(Reporting) COVID-19 is a <u>notifiable disease</u> . Only severe and death cases are required to be reported, with outcomes (serious, critical, and death) within 28 days of the first positive specimen collection date.	6
Japan	Confirmed case: Laboratory confirmed cases using PCR or rapid/quantitative antigen test	<p>COVID-19 is a category five <u>sentinel disease</u>; positive cases must be reported every week.</p> <p>(Clinical surveillance) Sentinel surveillance – positive cases from 5,000 sentinel sites at healthcare facilities for both Influenza and COVID-19; hospitalizations from 500 sentinel sites at healthcare facilities.</p> <p>(Virological surveillance) SARS-CoV-2 genomic surveillance is conducted every week by the National Institute of Infectious Diseases in collaboration with commercial medical laboratories. Public health institutes at a prefectural level also conduct genomic surveillance for GISAID submission.</p> <p>(Reporting) Weekly number of positive cases, hospitalizations (including those requiring ICU admission or mechanical ventilator), and variant data are reported.</p>	7, 8
Republic of Korea	Confirmed case: Laboratory confirmed cases using PCR or RAT	<p>COVID-19 is a level four <u>notifiable disease</u>; positive cases must be reported within seven days of confirmation.</p> <p>(Clinical surveillance) <u>Sentinel surveillance</u> with 527 sentinel sites at healthcare facilities; positive specimens via PCR or RAT are reported.</p> <p>(Virological surveillance) <u>Sentinel surveillance</u> with 105 sentinel sites from above healthcare facilities; positive specimens via PCR are reported.</p> <p>(Reporting) Weekly number of positive cases, positivity rate, and variant data are reported (Sunday to Saturday).</p>	9, 10
New Zealand	Confirmed case: Definitive laboratory evidence, without being a confirmed or probable case in the previous 28 days	<u>Exhaustive surveillance</u> : COVID-19 is a <u>notifiable disease</u> under Section 74 of the Health Act 1956, which requires <u>all health practitioners</u> and those in charge of medical laboratories to officially report actual and suspected cases of COVID-19 to	11

	<ul style="list-style-type: none"> Definitive laboratory evidence: SARS-CoV-2 detected from a clinical specimen using a validated NAAT or by RAT in a health care setting. <p>Probable case: Suggestive laboratory evidence, without being a confirmed or probable case in the previous 28 days</p> <ul style="list-style-type: none"> Suggestive laboratory evidence: SARS-CoV-2 detected through a self-reported RAT where the quality of result cannot be verified. 	<p>the medical officer of health in the local public health service. Self-diagnosed cases detected by RAT are not required to be reported under the Health Act.</p> <p>(Reporting) With widespread community transmission of SARS-CoV-2, reporting priorities to central communicable diseases units should include a) laboratory notification of positive NAAT results, b) self-reporting of positive RAT results, c) case demographics, d) clusters and outbreaks in high-risk settings and communities, e) cases in hospital and intensive care, and f) COVID-19 related deaths.</p>		
Pacific Island Countries and Areas	Cook Islands	<p>Confirmed case: Laboratory definitive evidence, satisfying one of the following:</p> <ul style="list-style-type: none"> Detection of SARS-CoV-2 from a clinical specimen using a validated NAAT (PCR) Detection of coronavirus from a clinical specimen using pan-coronavirus NAAT (PCR) and confirmation as SARS-CoV-2 by sequencing Significant rise in IgG antibody level to SARS-CoV-2 between paired sera (when serological testing becomes available). 	Exhaustive surveillance	12, 13
	Fiji	<p>Confirmed case: Meeting one of the following criteria:</p> <ul style="list-style-type: none"> A person with a positive RT-PCR or Gene Expert Test A person with a positive SARS-CoV-2 Ag-RDT AND meeting either the probable case definition or suspected criteria An asymptomatic contacts of a positive/probable case with a positive SARS-CoV-2 Ag-RDT 	COVID-19 test results are reported from multiple laboratories from multiple sites (sentinel and non-sentinel).	12
	Guam	<p>Confirmed case: Meeting one of the following confirmatory laboratory evidence</p> <ul style="list-style-type: none"> Detection of SARS-CoV-2 ribonucleic acid (RNA) in a post-mortem respiratory swab or clinical specimen using a diagnostic 	COVID-19 test results are reported from multiple laboratories (non-sentinel) at varying times of the day. The Joint Information Center reports cumulative results once a day, unless available.	12, 14

		molecular amplification test performed by a Clinical Laboratory Improvement Amendments (CLIA)-certified provider, OR <ul style="list-style-type: none"> Detection of SARS-CoV-2 by genomic sequencing 		
--	--	--	--	--

References:

1. Australia, Department of Health and Aged Care. List of nationally notifiable diseases. Updated on 4 March 2024. Available from: <https://www.health.gov.au/topics/communicable-diseases/nationally-notifiable-diseases/list>
2. Australia, Department of Health and Aged Care. National Communicable Disease Surveillance Dashboard. Available from: <https://nindss.health.gov.au/pbi-dashboard/>
3. China, National Health Commission (NHC). National Health Office Medical Emergency Letter. Updated on 6 January 2023. Available from: <http://www.nhc.gov.cn/ylyjs/pqt/202301/32de5b2ff9bf4eaa88e75bdf7223a65a.shtml>
4. China, NHC. Joint Prevention and Control Mechanism Comprehensive Issue. Updated on 7 January 2023. Available from: <http://www.nhc.gov.cn/xcs/zhengcwj/202301/bdc1ff75feb94934ae1dade176d30936.shtml>
5. China, National Disease Control and Prevention Administration. List of Notifiable Infectious Diseases. Available from: <https://www.ndcpa.gov.cn/jbkzxx/c100041/common/list.html>
6. Hongkong SAR China, Centre for Health Protection (CHP), Communicable Disease Surveillance: Case definitions. Updated on 7 September 2023. Available from: https://cdis.chp.gov.hk/CDIS_CENO_ONLINE/disease.html
7. Japan, Ministry of Health, Labour and Welfare (MHLW). Notification by Physicians and Veterinarians under the act on the Prevention of Infectious Diseases and Medical Care for Patients with Infectious Diseases, COVID-19. Available from: <https://www.mhlw.go.jp/bunya/kenkou/kekaku-kansenshou11/01-shitei-01.html>
8. Japan, National Institute of Infectious Diseases (NIID). Weekly surveillance report of SARS-CoV-2. Available from: <https://www.niid.go.jp/niid/ja/2019-ncov/2484-idsc/12015-covid19-surveillance-report.html>
9. Republic of Korea, Korea Disease Control and Prevention Agency (KDCA). Weekly COVID-19 sentinel surveillance reports. 2023-24. Available from: https://ncov.kdca.go.kr/pot/bbs/BD_selectBbs.do?q_bbsSn=1010&q_bbsDocNo=20240307110822397&q_clsfNo=2
10. Republic of Korea, KDCA. Classification of Notifiable Diseases. Available from: <https://ncov.kdca.go.kr/pot/ii/sttyInftnsds/sttyInftnsds.do>
11. New Zealand, Health New Zealand (Te Whatu ora). Communicable Disease Control Manual, COVID-19. Updated in January 2024. Available from: <https://www.tewhātuora.govt.nz/for-the-health-sector/health-sector-guidance/communicable-disease-control-manual/covid-19/#case-definition>
12. WHO Division of Pacific Technical Support (DPS)
13. Cook Islands, Ministry of Health. Surveillance and Testing Plan Coronavirus Disease 2019 (COVID-19) as of April 2021. Available from: https://www.health.gov.ck/wp-content/uploads/2021/07/TMO_SURVTESTPlan_COVID19_April-2021.pdf
14. Guam, Centers for Disease Control and Prevention. National Notifiable Disases Surveillance System (NNDSS). Coronavirus Disease 2019 (COVID-19) 2021 Cases Definition. Available from: [Coronavirus Disease 2019 \(COVID-19\) 2021 Case Definition | CDC](#)