

COVID-19 and Mpox Situational Report in the ASEAN Region

- ASEAN BioDiaspora Virtual Center (ABVC)

ASSOCIATION OF SOUTHEAST ASIAN NATIONS



ASEAN BIODIASPORA VIRTUAL CENTER (ABVC)





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COVID-19: Highlights and Situation Overview

Global Update

- Worldwide, there have been over 660 million cases and over 6 million deaths attributed to COVID-19.
- **US FDA:** The Food and Drug Administration announced on January 26, 2023, that Evusheld is not currently authorized for preexposure prophylaxis against SARS-CoV-2 infection in the United States.¹ As of January 20, 2023, >90% of circulating SARS-CoV-2 variants in the United States, specifically Omicron BQ.1, BQ.1.1, XBB, and XBB.1.5 sublineages, are unlikely to be susceptible to the combined monoclonal antibodies, tixagevimab and cilgavimab (Evusheld) used for preexposure prophylaxis against SARS-CoV-2 infection.¹ It is important that persons who are moderately to severely immunocompromised, those who might have an inadequate immune response to COVID-19 vaccination, and those with contraindications to receipt of COVID-19 vaccines, exercise caution and recognize the need for additional preventive measures.¹ In addition, persons should have a care plan that includes prompt testing at the onset of COVID-19 symptoms and rapid access to antivirals if SARS-CoV-2 infection is detected.¹ [Full article]
- **US Centers for Disease Control and Prevention (CDC)** said in its latest update on the variant proportions that Omicron XBB.1.5 is now dominant, making up an estimated of over 60% of sequenced samples, up from just under 50% the previous week.⁴ The subvariant is now dominant in southeastern states, alongside regions in the Eastern Seaboard, where it was already dominant. However, the proportion increased in all US regions.⁴
- China's National Medical Products Administration said on January 29 (Sunday) that it has conducted emergency reviews and granted conditional approval for two homegrown drugs for COVID-19 treatment. The applications for the innovative drugs XIANNUOXIN and VV116 were submitted by Simcere and a subsidiary of Shanghai Junshi Biosciences. XIANNUOXIN and VV116 are oral small-molecule drugs intended to be used for the treatment of adults infected with mild to moderate COVID-19. China's administration also required the holders of marketing approval for the drugs to continue relevant research, fulfill conditional requirements within the specified time, and submit follow-up research results promptly.

Research Update (Published and peer-reviewed studies)

• The safety, effectiveness, and cost-effectiveness of molnupiravir, an oral antiviral medication for SARS-CoV-2, has not been established in vaccinated patients in the community at increased risk of morbidity and mortality from COVID-19.2 This UK-based, national, multicentre, open-label, multigroup, prospective, randomised controlled trial, Molnupiravir plus usual care versus usual care alone as early treatment for adults with COVID-19 at increased risk of adverse outcomes (PANORAMIC): an open-label, platform-adaptive randomized controlled trial, determined whether the addition of molnupiravir to usual care reduced hospital admissions and deaths associated with COVID-19 in this population.2 Between Dec 8, 2021, and April 27, 2022, 26,411 eligible participants aged 50 years or older and aged 18 years or older with relevant comorbidities who had been unwell with confirmed COVID-19 for 5 days or fewer in the community were included.2 Participants in the molnupiravir group were asked to take 800 mg molnupiravir orally twice daily for 5 days.2 Usual care in the UK National Health Service (NHS) for COVID-19 in the community is largely focused on managing symptoms with antipyretics.2 Hospitalizations or deaths were recorded in 105 (1%) of 12,529



- participants in the molnupiravir plus usual care group versus 98 (1%) of 12,525 in the usual care group (adjusted odds ratio 1 06 [95% Bayesian credible interval 0.81–1.41]; probability of superiority 0.33).² There was no evidence of treatment interaction between subgroups.² Serious adverse events were recorded for 50 (0.4%) of 12,774 participants in the molnupiravir plus usual care group and for 45 (0.3%) of 12,934 in the usual care group.² None of these events were judged to be related to molnupiravir.² Thus, molnupiravir did not reduce the frequency of COVID-19-associated hospitalizations or death among high-risk vaccinated adults in the community.² [Full text]
- Evidence of the efficacy and safety of messenger RNA (mRNA) COVID-19 vaccines in children aged 5 to 11 years has been reported.³ This meta-analysis, Assessment of Efficacy and Safety of mRNA COVID-19 Vaccines in Children Aged 5 to 11 Years A Systematic Review and Meta-analysis, provides data on the efficacy and safety of mRNA COVID-19 vaccines in children aged 5 to 11 years. Randomized clinical trials and observational studies comparing vaccinated vs unvaccinated children aged 5 to 11 years and reporting efficacy or safety outcomes were included. Studies reporting safety outcomes in vaccinated children only (i.e., no control group) were also included.³ The primary outcome was SARS-CoV-2 infections with or without symptoms.³ The secondary outcomes included symptomatic SARS-CoV-2 infections, hospitalizations, multisystem inflammatory syndrome in children.3 The incidences of each AE following vaccination were also evaluated. Two randomized clinical trials and 15 observational studies involving 10,935,541 vaccinated children (median or mean age range, 8.0-9.5 years) and 2,635,251 unvaccinated children (median or mean age range, 7.0-9.5 years) were included.³ Two-dose mRNA COVID-19 vaccination compared with no vaccination was associated with lower risks of SARS-CoV-2 infections with or without symptoms (OR, 0.47; 95% CI, 0.35-0.64), symptomatic SARS-CoV-2 infections (OR, 0.53; 95% CI, 0.41-0.70), hospitalizations (OR, 0.32; 95% CI, 0.15-0.68), and multisystem inflammatory syndrome in children (OR, 0.05; 95% CI, 0.02-0.10). Two randomized clinical trials and 5 observational studies investigated AEs among vaccinated children.³ Most vaccinated children experienced at least 1 local AE following the first injection (32,494 of 55,959 [86.3%]) and second injection (28,135 of 46,447 [86.3%]).3 Vaccination was associated with a higher risk of any AEs compared with placebo (OR, 1.92; 95% CI, 1.26-2.91).3 The incidence of AEs that prevented normal daily activities was 8.8% (95% CI, 5.4%-14.2%) and that of myocarditis was estimated to be 1.8 per million (95% CI, 0.000%-0.001%) following the second injection.³ COVID-19 vaccination was associated with lower risks of SARS-CoV-2 infection, symptomatic COVID-19, hospitalization, and multisystem inflammatory syndrome in children.³ While vaccination, compared with placebo, was associated with higher incidences of adverse events, the overall frequency of severe adverse events, including myocarditis, was low.3 [Full text]
- In the study *Effectiveness of Bivalent Boosters against Severe Omicron Infection*, the researchers have analyzed data from the COVID-19 surveillance and vaccine-management systems from September 1 to December 8, 2022, in which the bivalent Pfizer/BioNTech and Moderna mRNA vaccine boosters were administered.⁵ The team also pulled data from May 25 to August 31, 2022, when only monovalent (single-strain) boosters were administered to compare rates of severe infection from the Omicron BA.4.6, BA.5, BQ.1, and BQ.1.1 subvariants.⁵ Of the 6,242,259 individuals eligible for a booster, 5% received a monovalent dose from May 25 to August 31.⁵ 3% of the 1,896 boosted participants reported COVID-19 hospitalizations, and 3% of 690 died.⁵ From September 1 to November 3, 17% of 6,283,483 eligible participants received a bivalent booster, 5% of 1,093 reported COVID-19 hospitalizations, and 3% of 514 died.⁵ Booster effectiveness peaked at 1 month and then waned. Vaccine effectiveness (VE) against severe infection resulting in hospitalization 15 to 99 days after receipt of one monovalent booster dose was 25.2%, and the corresponding VE for a bivalent booster dose was 58.7%.⁵ The difference in VE against Omicron hospitalization between the bivalent and



monovalent boosters was 33.5%, and VE against hospitalization or death was 24.9% for one monovalent booster dose and 61.8% for a bivalent dose.⁵ The difference in VE against Omicron hospitalization or death between the bivalent and monovalent boosters was 36.9%.⁵ The authors conclude that the updated booster offers significant protection against hospitalization or death from COVID-19.⁵ [Full text]

The study Neutralization of BA.4-BA.5, BA.4.6, BA.2.75.2, BQ.1.1, and XBB.1 with Bivalent Vaccine has evaluated VE against the wild-type virus, BA.4.6, BA.2.75.2, BQ.1.1, and XBB.1 subvariants in adults older than 55 years.6 The participants had received three doses of the monovalent Pfizer vaccine and either a fourth monovalent dose of the Pfizer vaccine roughly 6.6 months after the third dose or the bivalent vaccine about 11 months after the third dose. 6 The fourth monovalent vaccine dose triggered an increase in concentrations of neutralizing antibodies of 3.0 against the wild-type virus, 2.9 against BA.4/BA.5, 2.3 against BA.4, 2.1 against BA.2.75.2, 1.8 against BQ.1.1, and 1.5 against XBB.1, which has now become the dominant variant in the United States.⁶ The bivalent booster increased neutralizing antibody concentrations by 5.8, 13.0, 11.1, 6.7, 8.7, and 4.8, respectively.⁶ Among COVID-naïve participants, the monovalent vaccine produced neutralizing antibody concentration increases of 4.4 against the wild-type virus, 3.0 against BA.4/BA.5, 2.5 against BA.4.6, 2.0 against BA.2.75.2, 1.5 against BQ.1.1, and 1.3 against XBB.1.6 The bivalent booster increased neutralizing antibody levels by 9.9, 26.4, 22.2, 8.4, 12.6, and 4.7, respectively. Among previously infected participants, the monovalent vaccine increased neutralizing antibody concentrations by 2.0 against the wild-type virus, 2.8 against BA.4/BA.5, 2.1 against BA.4.6, 2.1 against BA.2.75.2, 2.2 against BQ.1.1, and 1.8 against XBB.1.6 The bivalent booster increased neutralizing antibody concentrations by 3.5, 6.7, 5.6, 5.3, 6.0, and 4.9, respectively. According to the researchers, higher neutralizing titers developed in participants with a history of SARS-CoV-2 infection after the fourth dose, than in those without a history of infection.⁶ Neutralizing titers after a bivalent booster were several times as high as those after the original BNT162b2 [Pfizer] vaccine suggesting that the bivalent vaccine is more immunogenic than the original vaccine, with a greater breadth of responses against circulating omicron sublineages. [Full text]



Special Report: Likelihood of Importation of COVID-19 from China

Country of Origin	Country Destination	Likelihood of Importation	Importation Likelihood Date
China	Brunei Darussalam	2.46%	01/29/2002
China	Cambodia	98.11%	01/29/2002
China	Indonesia	99.77%	01/29/2002
China	Lao PDR	50.14%	01/29/2002
China	Malaysia	92.00%	01/29/2002
China	Myanmar	54.62%	01/29/2002
China	Philippines	95.93%	01/29/2002
China	Singapore	99.99%	01/29/2002
China	Thailand	99.90%	01/29/2002
China	Vietnam	89.39%	01/29/2023

Likelihood of importation of one COVID-19 case from China to an ASEAN Member State.



COVID-19 Cases and Deaths as of 30 January 2023

- As of 30 January 2023 (1PM, GMT+7), worldwide, there were 660,606,360 confirmed cases, including 6,740,398 deaths. Globally, Case Fatality Rate (CFR) was 1.2%.
- 35,569,740 confirmed cases of COVID-19 have been reported in the ASEAN Region.
- The Case Fatality Rate in the **ASEAN** Region is range between **0.1 to 3.1%**.

COVID-19 cases in ASEAN region

REGION	COUNTRY	FIRST CONFIRMED CASE(S)	LATEST REPORT ON CONFIRMED CASE(S)	TOTAL CONFIRMED CASES	NEW CASES	TOTAL DEATHS	NEW DEATHS	CUMULATIVE CASES/ 100,000	CUMULATIVE VACCINATED	CUMULATIVE FULLY VACCINATED	CUMULATIVE BOOSTERED	FULLY VACCINATED/ 100
ASEAN	Brunei Darussalam	10 Mar 20	29-Jan-23	275,220	-	225	-	63,519	450,404	445,929	338,987	99.3
REGION	Cambodia	27 Jan 20	29-Jan-23	138,689	4	3,056	-	841	15,244,858	14,609,937	10,433,215	87.1
	Indonesia	02 Mar 20	29-Jan-23	6,729,573	165	160,803	1	2,487	203,657,535	172,693,321	67,952,274	62.7
	Lao PDR	24 Mar 20	29-Jan-23	217,962	-	758	-	3,040	5,888,649	5,222,417		69.4
	Malaysia	25 Jan 20	29-Jan-23	5,036,140	269	36,940	-	15,763	28,125,245	27,536,657	17,056,957	81.1
	Myanmar	23 Mar 20	29-Jan-23	633,819	4	19,490	-	1,173	34,777,314	27,545,329	2,227,351	50.8
	Philippines	30 Jan 20	29-Jan-23	4,072,911	67	65,767	10	3,767	78,369,243	73,937,435	21,341,197	64.0
	Singapore	23 Jan 20	29-Jan-23	2,212,506	362	1,720	-	38,792	5,161,990	5,120,768	4,440,289	90.8
	Thailand	13 Jan 20	29-Jan-23	4,726,512	-	33,836	-	6,788	57,005,497	53,486,086	32,143,431	74.6
	Vietnam	23 Jan 20	29-Jan-23	11,526,408	13	43,186	-	11,949	90,450,881	85,848,363	57,452,750	87.4
		ASEAN C	OUNTRIES	35,569,740	884	365,781	11	148,119	519,131,616	466,446,242	213,386,451	

^{*}There have been no tests reported in the last 14 days in the ASEAN Region.

COVID-19 cases in Asia-Pacific region

REGION	COUNTRY/ TERRITORY	FIRST CONFIRMED CASE(S)	LATEST REPORT ON CONFIRMED CASE(S)	TOTAL CONFIRMED CASES	NEW CASES	TOTAL DEATHS	NEW DEATHS	CUMULATIVE CASES/ 100,000	CUMULATIVE VACCINATED	CUMULATIVE FULLY VACCINATED	CUMULATIVE BOOSTERED	FULLY VACCINATED/ 100
ASIA-	Afghanistan	24-Feb-20	28-Jan-23	208,435	-	7,876		548	11,606,705	10,894,509		26.5
PACIFIC	Australia	25-Jan-20	25-Jan-23	11,281,837	-	18,092	-	43,984	22,236,871	21,655,312	19,762,423	82.7
REGION	Bangladesh	08-Mar-20	29-Jan-23	2,037,506	28	29,441	ı	1,250	150,629,515	131,182,263	65,897,152	76.6
	Bhutan	05-Mar-20	24-Jan-23	62,598	-	21		8,203	699,116	677,669	634,641	86.6
	People's Republic of China*		29-Jan-23	12,866,160	30,628	34,971	0	79,328	1,339,608,531	1,304,575,996	214,031,616	89.7
	Cook Islands	17-Feb-22	27-Jan-23	6,999	-	2		32,724	15,084	14,715	10,209	86.4
	Fiji	18-Mar-20	27-Jan-23	68,820	-	883		7,733	711,686	640,712	170,632	68.9
	French Polynesia	12-Mar-20	4-Jan-23	77,957	-	649		27,913	190,765	186,059	112,237	60.8
	Guam	15-Mar-20	27-Jan-23	60,734	-	415	ı	36,304	158,611	144,042	•	85.5
	India	30-Jan-20	29-Jan-23	44,682,639	109	530,740	1	3,270	1,027,279,394	951,464,506	224,093,416	67.1



Japan	16-Jan-20	19-Oct-22	21,858,528	-	46.014	-	17.312	104.612.252	103,222,040	169,610,887	83.3
Kiribati	25-Jan-22	21-Jan-23	4,991	-	18	-	4,244	96,184	73,888	23,419	56.3
Maldives	07-Mar-20	24-Jan-23	185,713	-	311	-	34,977	399,151	385,081	167,187	73.5
Marshall Islands	26-Oct-20	2-Jan-23	15,554	-	17	-	26,456	43,310	34,694		44.6
Micronesia	11-Jan-21	21-Jan-23	22,676	-	58	-	19,924	84,729	71,253		69.6
Mongolia	10-Mar-20	29-Jan-23	1,007,865	3	2,179	-	31,250	2,272,965	2,175,617	1,044,337	64.0
Nepal	24-Jan-20	29-Jan-23	1,001,096	4	12,020	-	3,499	27,678,479	24,159,118	8,951,403	79.1
New Caledonia	17-Mar-20	24-Jan-23	79,820	-	314	-	27,735	192,229	184,660	101,849	63.7
New Zealand	28-Feb-20	24-Jan-23	2,171,788	-	3,754	-	44,169	4,300,097	4,138,926	3,523,903	79.8
Niue	03-Sep-21	24-Jan-23	741	-	-	-	34,211	1,636	1,634	1,224	83.7
Northern Mariana Islands	28-Mar-20	27-Jan-23	13,503	-	41	-	23,600	46,567	43,873		84.6
Pakistan	26-Feb-20	29-Jan-23	1,576,271	18	30,640	-	728	154,665,740	131,368,973	49,551,181	55.7
Palau	31-May-21	21-Jan-23	5,986	-	9	-	33,241	20,750	18,497		85.9
Papua New Guinea	21-Mar-20	21-Dec-22	46,663	-	669	-	532	369,998	310,717	32,384	3.1
Samoa	18-Nov-20	20-Jan-23	16,022	-	29	-	8,129	191,171	177,741	79,360	79.9
Solomon Islands	03-Oct-20	24-Nov-22	24,575	-	153	-	3,669	343,821	254,352	27,783	35.1
Republic of Korea**	20-Jan-20	29-Jan-23	30,149,601	17,303	33,404	30	58,306	44,867,046	44,448,105	41,325,954	85.8
Sri Lanka	27-Jan-20	29-Jan-23	671,987	-	16,828	2	3,082	17,143,761	14,752,827	8,220,002	67.6
Timor Leste	21-Mar-20	29-Jan-23	23,414	2	138	-	1,811	878,845	790,466	315,249	58.9
Tonga	05-Nov-21	29-Jan-23	16,734	62	13	-	16,014	91,949	77,464	38,331	72.5
Türkiye	10-Mar-20	12-Dec-22	17,041,315	-	101,487	-	20,426	57,941,051	53,176,961	41,425,329	62.3
Vanuatu	11-Nov-20	6-Jan-23	12,014	-	14	-	4,006	144,824	131,697	16,996	40.3
Wallis et Futuna	17-Oct-20	31-Dec-22	3,427	-	7	-	21,385	7,150	6,803	3,766	58.7
		ASIA PACIFIC	147,303,969	48.157	871.207	33	679,961	2,969,529,983	2,801,441,170	849.172.870	

^{*}ncludes cases from Hong Kong (SAR), Macau (SAR), and Taiwan (Province of China).

• 477,732,651 confirmed cases of COVID-19 have been reported in other 4 regions (other than ASEAN and Asia-Pacific

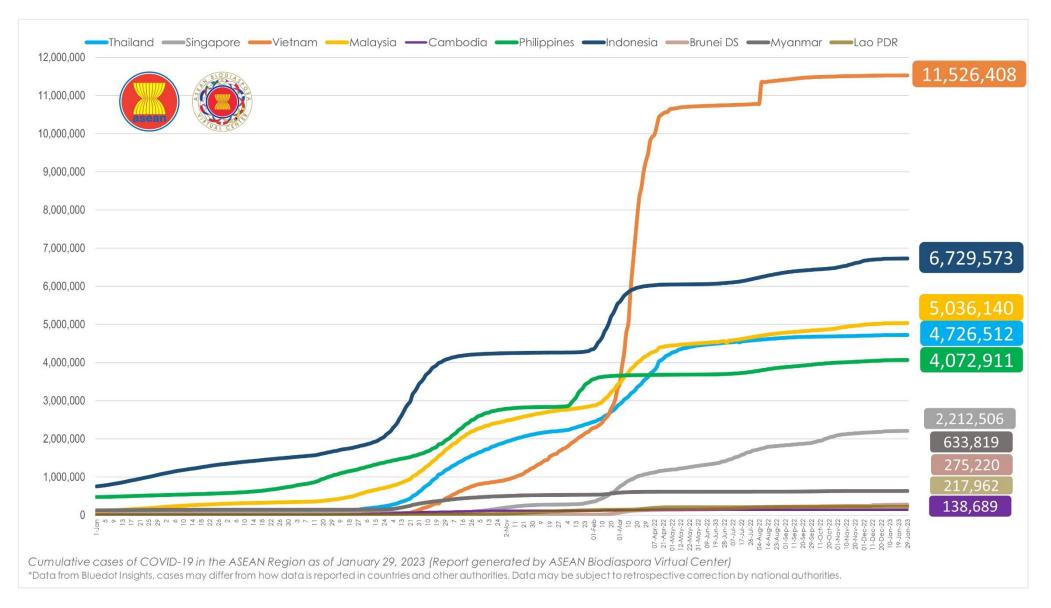
countries):

REGION	TOTAL CONFIRMED CASES	NEW CASES	TOTAL DEATHS	NEW DEATHS	CUMULATIVE CASES/ 100,000	CUMULATIVE VACCINATED	CUMULATIVE FULLY VACCINATED	CUMULATIVE BOOSTERED
AFRICA	13,031,735	2,209	259,431	16	248,260	484,058,451	398,811,838	66,003,692
AMERICAS	191,673,073	13,316	2,944,418	146	1,238,019	835,447,892	731,893,384	495,237,137
EUROPE	250,337,188	97,292	2,060,378	1,405	2,103,592	569,620,774	541,040,894	383,756,585
MIDDLE EAST	22,690,655	1,413	239,183	14	215,784	144,725,560	130,012,483	60,203,464
TOTAL	477,732,651	114,230	5,503,410	1,581	3,805,655	2,033,852,677	1,801,758,599	1,005,200,878

^{**}Republic of Korea – South Korea

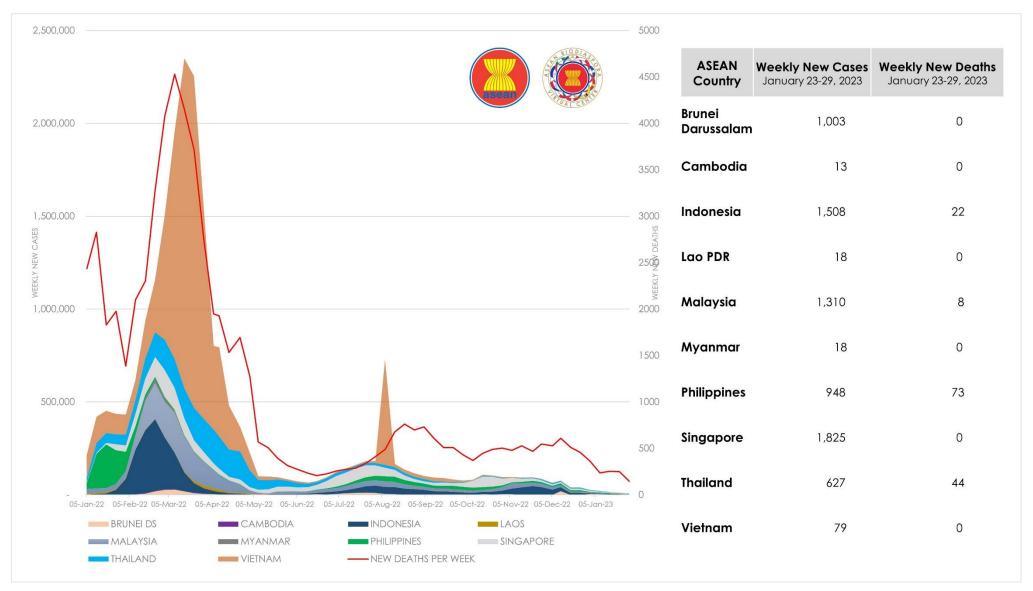
COVID-19 Epi curve among ASEAN Countries:

From January 1, 2022 to January 29, 2023



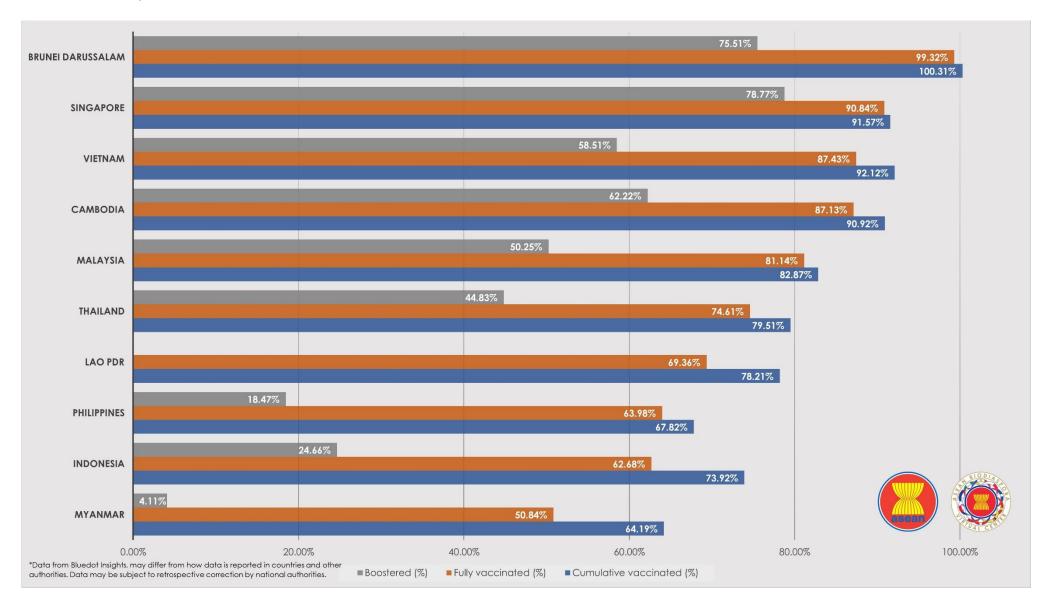
ASEAN Weekly COVID-19 New Cases and New Deaths

From January 1, 2022 to January 29, 2023



ASEAN COVID-19 Vaccination Status

as of 29 January 2023



ASEAN COVID-19 Outlook Assessment

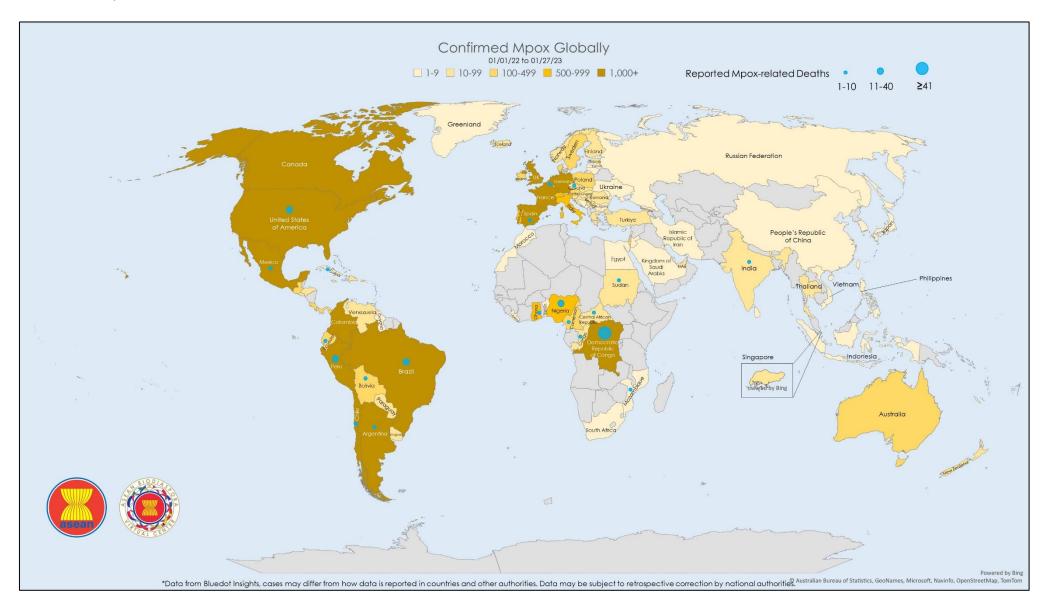
as of 27 January 2023

ASEAN MEMBER STATE	At least 65% of the total population has a level of immunity to COVID-19; either recovered from COVID-19 or have been vaccinated with at least one dose of a COVID-19 vaccine.		Case levels are generally low (a 7-day rolling average number of daily new cases that is <10 cases per 100,000, with each day's past-14-day test positivity is consistently <5%).	Government Policy on containment and health (strictness and comprehensiveness in COVID-19 related government policies)
	% of Total population fully vaccinated / boosted	Population vaccinated/ day (7-day average)	Daily cases/ 100,000	Containment and health index score - Oxford COVID-19 Government Response Tracker (OxCGRT)
Brunei Darussalam	≥90.0/75.5	Unknown	33.07	31.0/100
Cambodia	≥90.0/62.2	Unknown	0.01	31.5/100
Indonesia	66.1/24.7	Unknown	0.09	54.2/100
Lao PDR	77.3/ND	Unknown	0.04	61.6/100
Malaysia	84.5/50.3	0%/day	0.60	51.8/100
Myanmar	52.1/4.1	Unknown	0.01	69.1/100
Philippines	71.6/18.5	Unknown	0.17	55.4/100
Singapore	≥90.0/78.8	0%/day	4.34	58.9/100
Thailand	77.7/44.8	Unknown	0.13	31.5/100
Vietnam	≥90.0/58.5	Unknown	0.01	43.5/100

All of the countries have achieved the Population vaccinated/ day (7-day average) except Vietnam.

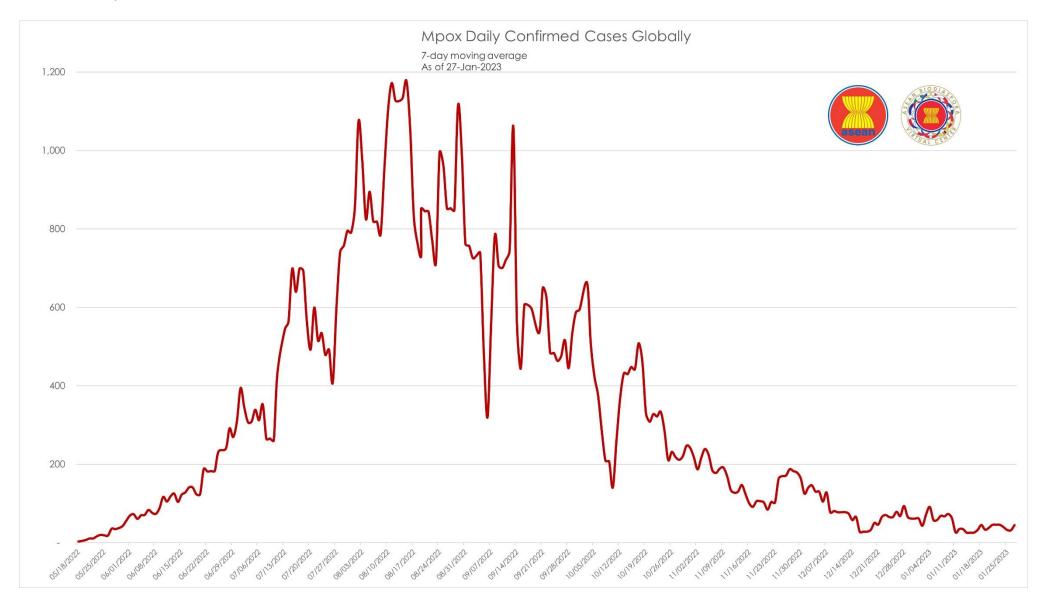
Mpox (Monkeypox) Cases Reported Globally

as of January 27, 2023



Mpox Daily Trend Globally

as of January 27, 2023



Mpox: Highlights and Situation Overview

- As of 30 January 2023 (1PM, GMT+7), worldwide, there were 91,715 confirmed cases, including 236 deaths. Globally, Case Fatality Rate (CFR) was 0.26%.
- 42 confirmed cases in the ASEAN region, with CFR of 0%.
- 91,673 confirmed cases of Mpox have been reported in other 5 regions (other than ASEAN region):

Mpox cases in ASEAN region

Country	Total Cases	New Cases	Deaths	Case Fatality Rate (CFR)
Indonesia	1	-	-	0.00%
Philippines	4	-	-	0.00%
Singapore	21	-	-	0.00%
Thailand	12	-	-	0.00%
Vietnam	4	-	-	0.00%
ASEAN Total	42	-	-	0.00%

Mpox cases in Asia-Pacific region

Country/Territory	Total Cases	New Cases	Deaths	Case Fatality Rate (CFR)
Australia	144	-	-	0.00%
Hong Kong (SAR)	1	-	-	0.00%
India	22	-	1	5.00%
Japan	9	-	-	0.00%
New Caledonia	1	-	-	0.00%
New Zealand	40	-	-	0.00%
People's Republic of China*	9	-	-	0.00%
Republic of Korea	4	-	-	0.00%
Sri Lanka	2	-	-	0.00%
Asia-Pacific Total	232	-	1	0.43%

^{*}People's Republic of China – including Hongkong (SAR), Macao (SAR), and Taiwan (Province of China)

Top 5 countries with most mpox cases globally

Total Cases	New Cases	Deaths	Case Fatality Rate (CFR)
30,093	-	26	0.09%
10,689	-	15	0.14%
7,517	-	3	0.04%
5,114	-	120	2.35%
4,128	14	-	0.00%
	30,093 10,689 7,517 5,114	30,093 - 10,689 - 7,517 - 5,114 -	30,093 - 26 10,689 - 15 7,517 - 3 5,114 - 120



Mpox cases per region

REGION	TOTAL CONFIRMED CASES SINCE JANUARY 1, 2022	NEW CASES SINCE THE PREVIOUS REPORT	TOTAL DEATHS	CASE FATALITY RATE
AFRICA	6,783	-	161	2.37%
AMERICAS	58,144	111	69	0.12%
ASEAN	42	-	-	0.00%
ASIA PACIFIC	232	-	1	0.43%
EUROPE	26,193	16	5	0.02%
MIDDLE EAST	321	-	-	0.00%
TOTAL	91,715	127	236	0.26%



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