

# COVID-19, Mpox, and Travel Advisories Situational Report in the ASEAN Region

-ASEAN BioDiaspora Virtual Center (ABVC)

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### ASEAN BIODIASPORA VIRTUAL CENTER (ABVC)





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### **COVID-19: Highlights and Situation Overview**

### **Global Update**

- Worldwide, there have been over 665 million cases and over 6 million deaths attributed to COVID-19.
- The World Health Organization (WHO) said in its weekly report that cases dropped 76% over the last 28 days, compared to the previous 28 days, with deaths down 66% over the same period. Cases declined in all world regions, and deaths fell in all regions except the Eastern Mediterranean. Meanwhile, in its variant update, the WHO reported that Omicron recombinants, mostly XBB.1.5, make up a growing proportion and are at 41.5%, up from 18.7% in the first half of January. XBF, added a few weeks ago as a variant under monitoring makes up an estimated 1.2% of sequenced samples. [Full text]

### **Regional Update**

• **Philippines:** According to the Department of Health, at least 121 new cases of Omicron subvariants have been discovered in the country (DOH).<sup>9</sup> 60 of the recent samples sequenced by the Research Institute for Tropical Medicine (RITM) and the University of the Philippines' Philippine Genome Center (UP-PGC) from February 20 to 24 were classed as BA.2.3.20.<sup>9</sup> 33 cases were classified as XBB, three as XBB.1.5, eight as XBC, and 20 as various Omicron sublineages.<sup>9</sup> The DOH stated that 59 of the extra BA.2.3.20 cases were local cases from Regions 2, 3, 4B, 11, 12, and the National Capital Region (NCR), while one case was designated as a Returning Overseas Filipino (ROF).<sup>9</sup> According to the Health Department, one of the 33 recently reported XBB cases was a ROF, while the other 32 were local cases from Regions 3, 4B, 11, 12, and Caraga (including three XBB.1.5 cases).<sup>9</sup> It went on to say that all of the extra XBC cases were from Regions 4B, 11, and 12. As of February 9, the World Health Organization was monitoring BF.7, BQ.1, BA.2.75, CH.1.1, XBB, XBB.1.5, and XBF Omicron subvariants.<sup>9</sup>

### Research Update (Published and peer-reviewed studies)

- The study Effectiveness of first and second COVID-19 mRNA vaccine monovalent • booster doses during a period of circulation of Omicron variant sublineages: December 2021–July 2022 concluded that monovalent (single-strain) COVID-19 vaccine booster was 74% effective against Omicron infection compared with the primary vaccine series for 3 months, but protection waned to 42% from 3 to 6 months and 36% after 6 months.<sup>2</sup> A total of 625 (71%) received a booster, while the remainder completed only the primary series.<sup>2</sup> Participants completed a symptom survey and submitted a nasal swab for polymerase chain reaction (PCR) testing each week and when they had at least one COVID-like symptom.<sup>2</sup> Of 219 (25%) COVID-19 infections, 97 occurred after receipt of the primary series, and 122 occurred after a booster.<sup>2</sup> Overall relative vaccine effectiveness (rVE) was 51%, regardless of previous infection status or the presence of an immunecompromising condition.<sup>2</sup> Fifteen days to 3 months after booster receipt, rVE was 74%, dropping to 42% at 3 to 6 months and 36% after 6 months.<sup>2</sup> The rVE of a second monovalent booster compared with a single booster was 24% among participants aged 50 and older—the only participants eligible for a second booster—but the 95% confidence interval ranged from -40% to 61%.<sup>2</sup> According to the authors, the increasing bivalent booster uptake should be a priority to increase protection likely lost due to waning immunity and antigenic change of circulating viruses.<sup>2</sup> [Full text]
- In the study Efficacy of first dose of covid-19 vaccine versus no vaccination on symptoms of patients with long covid: target trial emulation based on ComPaRe ecohort, researchers compared the outcomes of 455 patients enrolled in a nationwide



long-COVID cohort by May 2021 who had received at least one post-infection vaccine dose with those of unvaccinated controls.<sup>3</sup> By 120 days, the average number of long-COVID symptoms had declined in the vaccinated compared with the unvaccinated group (13.0 vs 14.8), and the rate of remission among the vaccinated had doubled (16.6% vs 7.5%; hazard ratio, 1.93).<sup>3</sup> Long COVID also appeared to have a lesser effect on vaccinated patients' lives (average impact score, 24.3 vs 27.6).<sup>3</sup> The authors conclude that COVID-19 vaccination reduced the severity of symptoms and the effect of long covid on patients' social, professional, and family lives in those who already have persistent symptoms of infection.<sup>3</sup> [Full text]

- The study **Effect of covid-19 vaccination on long covid: systematic review** compared the effect of COVID-19 vaccination before and after infection in 16 observational studies involving 614,392 students published from January 2020 to August 2022.<sup>4</sup> Out of the 12 studies that reported data on vaccination before infection, 10 showed a reduced rate of long COVID (odds ratios [ORs] after one vaccine dose, 0.22 to 1.03; two doses, 0.25 to 1.00; three doses, 0.16; and any dose, 0.48 to 1.01.<sup>4</sup> Five studies on vaccination after infection showed ORs of 0.38 to 0.91.<sup>4</sup> The researchers concluded that more robust comparative observational studies and trials are needed, however, to clearly determine the effectiveness of vaccines in preventing and treating long COVID.<sup>4</sup> [Full text]
- This prospective multisite cohort study, Acute and Postacute COVID-19 Outcomes . Among Immunologically Naive Adults During Delta vs Omicron Waves, examined COVID-19 acute and postacute clinical outcomes among a well characterized cohort of unvaccinated and previously uninfected adults who contracted SARS-CoV-2 during the Omicron (BA.1/BA.2) surge, and compared outcomes with infections that occurred during the Delta wave.<sup>5</sup> Unvaccinated adults aged 30 to less than 65 years without an immunological history of SARS-CoV-2 who were at high risk of infection were recruited.<sup>5</sup> Participants were followed for up to 48 weeks, submitting regular COVID-19 symptom surveys and nasal swabs for SARS-CoV-2 polymerase chain reaction (PCR) testing.<sup>5</sup> In this cohort study of 274 immunologically naive adults, 61% contracted SARS-CoV-2, with 6% of infections being asymptomatic.<sup>5</sup> Compared with infections during the Delta wave, people infected during the Omicron wave experienced a 79% relative risk reduction in health care use, 56% reduction in the relative risk of postacute symptoms, and 79% reduction in the relative rate of postacute symptoms.<sup>5</sup> These findings suggest that asymptomatic infection may have been relatively rare among immunologically naive adults and that, compared with infections during the Delta wave, individuals infected during the Omicron wave had lower likelihoods of severe illness and postacute symptoms.<sup>5</sup> [Full text]
- Breath analysis has been explored as a noninvasive means to detect COVID-19. However, the impact of emerging variants of SARS-CoV-2, such as Omicron, on the exhaled breath profile and diagnostic accuracy of breath analysis is unknown.<sup>6</sup> This diagnostic study, Portable Breath-Based Volatile Organic Compound Monitoring for the Detection of COVID-19 During the Circulation of the SARS-CoV-2 Delta Variant and the Transition to the SARS-CoV-2 Omicron Variant, evaluated the accuracies of breath analysis on detecting patients with COVID-19 when the SARS-CoV-2 Delta and Omicron variants were most prevalent.<sup>6</sup> This study included a cohort of patients who had positive and negative test results for COVID-19 using RT PCR between April 2021 and May 2022, which covers the period when the Delta variant was overtaken by Omicron as the major variant.<sup>6</sup> Patients were enrolled through intensive care units and the emergency department at the University of Michigan Health System.<sup>6</sup> Patient breath was analyzed with portable gas chromatography.<sup>6</sup> Different sets of VOC biomarkers were identified that distinguished between COVID-19 (SARS-CoV-2 Delta and Omicron variants) and non-COVID19 illness.<sup>6</sup> Overall, 205 breath samples from 167 adult patients were analyzed.<sup>6</sup> A total of 77 patients (mean [SD] age, 58.5 [16.1] years; 41 [53.2%] male patients; 13 [16.9%] Black and 59 [76.6%] White patients) had COVID-19, and 91 patients



(mean [SD] age, 54.3 [17.1] years; 43 [47.3%] male patients; 11 [12.1%] Black and 76 [83.5%] White patients) had non-COVID-19 illness.<sup>6</sup> Among 94 positive samples, 41 samples were from patients in 2021 infected with the Delta or other variants, and 53 samples were from patients in 2022 infected with the Omicron variant, based on the State of Michigan and US Centers for Disease Control and Prevention surveillance data.<sup>6</sup> Four VOC biomarkers were found to distinguish between COVID-19 (Delta and other 2021 variants) and non-COVID-19 illness with an accuracy of 94.7%.<sup>6</sup> However, accuracy dropped substantially to 82.1% when these biomarkers were applied to the Omicron variant.<sup>6</sup> Four new VOC biomarkers were found to distinguish the Omicron variant and non-COVID-19 illness (accuracy, 90.9%).<sup>6</sup> Breath analysis distinguished Omicron from the earlier variants with an accuracy of 91.5% and COVID-19 (all SARS-CoV-2 variants) vs non-COVID-19 illness with 90.2% accuracy.<sup>6</sup> Breath analysis has promise for COVID-19 detection.<sup>6</sup> However, similar to rapid antigen testing, the emergence of new variants poses diagnostic challenges.<sup>6</sup> [Full text]



## **ASEAN Travel Advisories** (new update/s)

as of 03 March 2023

ASEAN Country	Published	Foreign travelers allowed	COVID-19 vaccination requirement	Required COVID-19 testing for fully vaccinated	Required COVID-19 testing for NOT fully vaccinated	Quarantine upon arrival	Health insurance requirement	Arrival health declaration/ registration/ documents
Brunei Darussalam	December 1, 2022	Yes	No	No	No	No	No	No
Cambodia	October 6, 2022	Yes	No	No	No	No	No	No
Indonesia	December 7, 2022	Yes	Yes – fully vaccinated* certificate for 18 years old and above.	No, but may be subject to RT-PCR upon arrival	Foreign travelers who are not fully vaccinated may not be allowed to enter Indonesia or may be subjected to RT-PCR test upon arrival	No	No	Traveler is required to download and register at <u>PeduliLindungi app</u> before departure.
Laos	December 29, 2022	Yes	No	No	No	No	No	No
Malaysia	August 2, 2022	Yes	No	No	No	No	No	No
Myanmar	February 22, 2023	Yes	Yes – fully vaccinated* certificate for 12 years old and above.	Yes – printed negative COVID-19 antigen test result for 12 years old and above taken within 48 hours before arrival.	Foreign travelers who are not fully vaccinated are not allowed to enter or transit Myanmar.	No	Required to obtain <u>Myanmar</u> Insurance	No
Philippines	December 1, 2022	Yes	Yes – fully vaccinated* with booster dose certificate for 15 years old and above.	No	Yes – COVID-19 rapid antigen test taken at most 24 hours before departure or subject to a rapid test upon arrival.	No	No	Traveler is required to download and register at <u>E-arrival card</u> at most 3 days before departure for those without visa.
Singapore	February 13, 2023	Yes	No	No	No	No	No	No
Thailand	March 1, 2023	Yes	No	No	No	No	No	No
Vietnam	May 16, 2022	Yes	No	No	No	No	No	No

Reference: <u>IATA Travel Centre</u> \*Fully vaccinated – at least 14 or 15 days from 2<sup>nd</sup> dose for two-dose vaccine or 14 or 15 days from a single dose vaccine upon arrival. ٠

### COVID-19 Cases and Deaths as of 23 February 2023

- As of 23 February 2023 (1PM, GMT+7), worldwide, there were 665,671,686 confirmed cases, including 6,784,423 deaths. Globally, Case Fatality Rate (CFR) was 1.2%.
- 35,597,879 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	CUMULATIVE FULLY VACCINATED	CUMULATIVE BOOSTERED	FULLY VACCINATED/ 100
ASEAN	Brunei Darussalam	10 Mar 20	02-Mar-23	277,531	706	225	-	64,053	450,404	445,929	338,987	99.3
REGION	Cambodia	27 Jan 20	02-Mar-23	138,718	2	3,056	-	841	15,244,858	14,609,937	10,433,215	87.1
	Indonesia	02 Mar 20	02-Mar-23	6,736,364	278	160,918	4	2,489	203,657,535	172,693,321	67,952,274	62.7
	Lao PDR	24 Mar 20	02-Mar-23	218,015	2	758	-	3,041	5,888,649	5,222,417		69.4
	Malaysia	25 Jan 20	02-Mar-23	5,043,252	244	36,965	5	15,785	28,125,245	27,536,657	17,056,957	81.1
	Myanmar	23 Mar 20	02-Mar-23	633,925	7	19,490	-	1,173	34,777,314	27,545,329	2,227,351	50.8
	Philippines	30 Jan 20	02-Mar-23	4,076,515	152	66,114	8	3,770	78,369,243	73,937,435	21,341,197	64.0
	Singapore	23 Jan 20	02-Mar-23	2,218,623	-	1,722	-	38,899	5,161,990	5,120,768	4,440,289	90.8
	Thailand	13 Jan 20	02-Mar-23	4,728,035	-	33,911	-	6,791	57,005,497	53,486,086	32,143,431	74.6
	Vietnam	23 Jan 20	02-Mar-23	11,526,901	11	43,186	-	11,950	90,450,881	85,848,363	57,452,750	87.4
		ASI	EAN COUNTRIES	35,597,879	1,402	366,345	17	148,792	519,131,616	466,446,242	213,386,451	

#### 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	02-Mar-23	209,324	18	7,896	-	550	11,606,705	10,894,509		26.5
PACIFIC	Australia	25-Jan-20	01-Mar-23	11,368,356	-	19,373	-	44,321	22,236,871	21,655,312	19,762,423	82.7
REGION	Bangladesh	08-Mar-20	01-Mar-23	2,037,794	-	29,445	-	1,250	150,629,515	131,182,263	65,897,152	76.6
	Bhutan	05-Mar-20	01-Mar-23	62,616	-	21	-	8,206	699,116	677,669	634,641	86.6
	People's Republic of China*		02-Mar-23	13,428,750	14,175	36,762	0	81,796	1,339,608,531	1,304,575,996	214,031,616	89.7
	Cook Islands	17-Feb-22	01-Mar-23	7,028	-	2	-	32,860	15,084	14,715	10,209	86.4
	Fiji	18-Mar-20	26-Feb-23	68,889	-	883	-	7,741	711,686	640,712	170,632	68.9
	French Polynesia	12-Mar-20	04-Jan-23	77,957	-	649	-	27,913	190,765	186,059	112,237	60.8
	Guam	15-Mar-20	01-Mar-23	60,984	-	419	-	36,453	158,611	144,042		85.5
	India	30-Jan-20	02-Mar-23	44,686,686	268	530,771	-	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



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Kiribati	25-Jan-22	15-Feb-23	5,012	-	18	-	4,262	96,184	73,888	23,419	56.3
Maldives	07-Mar-20	28-Feb-23	185,732	-	311	-	34,981	399,151	385,081	167,187	73.5
Marshall Islands	26-Oct-20	02-Mar-23	15,618	20	17	-	26,565	43,310	34,694		44.6
Micronesia	11-Jan-21	02-Mar-23	23,948	277	61	1	21,041	84,729	71,253		69.6
Mongolia	10-Mar-20	02-Mar-23	1,007,896	1	2,179	-	31,251	2,272,965	2,175,617	1,044,337	64.0
Nepal	24-Jan-20	02-Mar-23	1,001,146	1	12,020	-	3,499	27,678,479	24,159,118	8,951,403	79.1
New Caledonia	17-Mar-20	28-Feb-23	79,881	-	314	-	27,756	192,229	184,660	101,849	63.7
New Zealand	28-Feb-20	27-Feb-23	2,216,852	-	3,904	-	45,085	4,300,097	4,138,926	3,523,903	79.8
Niue	03-Sep-21	01-Mar-23	790	-	-	-	36,473	1,636	1,634	1,224	83.7
Northern Mariana Islands	28-Mar-20	24-Feb-23	13,631	-	41	-	23,824	46,567	43,873		84.6
Pakistan	26-Feb-20	02-Mar-23	1,576,972	32	30,643	-	728	154,665,740	131,368,973	49,551,181	55.7
Palau	31-May-21	02-Mar-23	5,989	1	9	-	33,257	20,750	18,497		85.9
Papua New Guinea	21-Mar-20	01-Mar-23	46,809	-	670	-	533	369,998	310,717	32,384	3.1
Samoa	18-Nov-20	22-Feb-23	16,607	-	29	-	8,426	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	02-Mar-23	30,522,728	7,561	33,983	15	59,028	44,867,046	44,448,105	41,325,954	85.8
Sri Lanka	27-Jan-20	01-Mar-23	672,031	-	16,830	-	3,082	17,143,761	14,752,827	8,220,002	67.6
Timor Leste	21-Mar-20	16-Feb-23	23,418	-	138	-	1,811	878,845	790,466	315,249	58.9
Tonga	05-Nov-21	02-Mar-23	16,807	6	13	-	16,084	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	06-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	148,380,110	22,360	875,076	16	688,844	2,969,529,983	2,801,441,170	849,172,870	

\*Includes cases from Hong Kong (SAR), Macau (SAR), and Taiwan (Province of China) \*\* Republic of Korea – South Korea

### • 481,693,697 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	13,056,592	1,211	259,535	2	248,957	484,058,451	398,811,838	66,003,692
AMERICAS	193,686,162	4,342	2,967,153	41	1,242,711	835,447,892	731,893,384	495,237,137
EUROPE	252,217,658	65,176	2,076,396	466	2,115,221	569,620,774	541,040,894	383,756,585
MIDDLE EAST	22,733,285	1,818	239,918	20	216,655	144,725,560	130,012,483	60,203,464
TOTAL	481,693,697	72,547	5,543,002	529	3,823,544	2,033,852,677	1,801,758,599	1,005,200,878

# **COVID-19 Epi curve among ASEAN Countries**

From January 1, 2022 to February 23, 2023



# **COVID-19 Vaccination Status in ASEAN**

as of 23 February 2023





# ASEAN COVID-19 Outlook Assessment

as of 21 February 2023

ASEAN MEMBER STATE	At least <b>65% of the total</b> <b>immunity</b> to COVID-19; eith 19 or have been vaccinate a COVID-1	<b>population has a level of</b> her recovered from COVID- ed with at least one dose of 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%).	<b>Government Policy</b> on containment and health (strictness and comprehensiveness in COVID-19 related government policies)	
	% of Total population fu	lly vaccinated / boosted	Daily cases/ 100,000	Containment and health index score - Oxford COVID-19 Government Response Tracker (OxCGRT)	
Brunei Darussalam	≥90.0	75.5	23.27	31.0/100	
Cambodia	≥90.0	62.2	0.01	31.5/100	
Indonesia	66.1	24.7	0.08	54.2/100	
Lao PDR	77.3	ND	0.02	61.6/100	
Malaysia	84.5	50.3	0.67	51.8/100	
Myanmar	52.1	4.1	0.01	69.1/100	
Philippines	71.6	18.5	0.10	55.4/100	
Singapore	≥90.0	78.8	0.00	58.9/100	
Thailand	77.7	44.8	0.04	31.5/100	
Vietnam	≥90.0	58.5	0.01	43.5/100	

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



## **Special Report on Notable Diseases**

### Avian Influenza H5N1

- China has reported a new human H5N1 avian flu case, marking the second case in recent months. An official with the World Health Organization (WHO), Daniel Epstein, said that China informed the WHO about the case on February 24. The patient is a 53-year-old woman from Jiangsu province who has a history of contact with poultry. The woman's symptoms began on January 31 and was hospitalized on February 4. Genetic sequencing suggests that she was infected with the 2.3.4.4b H5N1 clade, which is currently circulating widely in birds. China's last H5N1 case involved a woman from Guangxi province who was sick in November 2022 and died from her infection. In a late December risk assessment, the WHO said the virus from that Chinese patient, as well as a recent case in Vietnam, also involved the 2.3.4.4b H5N1 clade.
- The US Centers for Disease Control and Prevention (CDC) on March 2 detailed its genetic analysis of the full H5N1 avian flu virus sequence, shared by Cambodia's health ministry, from a girl who recently died from her infection.<sup>1</sup> The CDC said that the virus belongs to the 2.3.2.1c clade and is different from the 2.3.4.4b clade that is currently circulating in US wild birds and poultry and in domestic and wild birds across the globe.<sup>1</sup> It added that the clade found in the Cambodian patient is similar to 2.3.2.1c clade H5N1 viruses that have been circulating in Southeast Asia in recent years.<sup>1</sup> Sequencing by the CDC also suggests that an existing clade 2.3.2.1c candidate vaccine virus would offer protection against the virus.<sup>1</sup> Also, the CDC found no genetic changes known to be linked to enhanced ability to spread to people or reduced susceptibility to antiviral medications.<sup>1</sup> The CDC added that it will continue to support Cambodia with its investigation and that evidence suggests that the girl's case, and that of her father, represents two instances of bird-to-human spread, not human-to-human spread.<sup>1</sup> It added that it has requested virus samples from both patients to confirm virus characteristics and to provide a more detailed risk assessment.<sup>1</sup> [Full report]

# Mpox (Monkeypox) Cases Reported Globally

as of February 28, 2023





### **Mpox Daily Trend Globally**

as of February 28, 2023





# Mpox: Highlights and Situation Overview

- As of 02 March 2023 (1PM, GMT+7), worldwide, there were **86,223** confirmed cases, including **100** deaths. Globally, Case Fatality Rate (CFR) was **0.12%**.
- **43 confirmed cases** in the ASEAN region, with CFR of **0%**.
- **86,180 confirmed cases** of Mpox have been reported in other **5 regions** (other than 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	15	-	-	0.00%
Vietnam	2	-	-	0.00%
ASEAN Total	43	-	-	0.00%

### Mpox cases in ASEAN region

### Mpox cases in Asia-Pacific region

Country/Territory	Total Cases	New Cases	Deaths	Case Fatality Rate (CFR)
Australia	144	-	-	0.00%
India	22	-	1	5.00%
Japan	22	-	-	0.00%
New Caledonia	1	-	-	0.00%
New Zealand	41	-	-	0.00%
People's Republic of China*	8	-	-	0.00%
Republic of Korea*	4	-	-	0.00%
Sri Lanka	2	-	-	0.00%
Asia-Pacific Total	244	-	1	0.42%

\*People's Republic of China – including Hong Kong (SAR), Macao (SAR), and Taiwan (Province of China)

### Top 5 countries with most mpox cases globally

Country	Total Cases	New Cases	Deaths	Case Fatality Rate (CFR)
United States of America	29,987	-	32	0.11%
Brazil	10,825	-	15	0.14%
Spain	7,543	-	3	0.04%
France	4,128	-	-	0.00%
Colombia	4,081	-	-	0.00%



REGION	TOTAL CONFIRMED CASES SINCE JANUARY 1, 2022	NEW CASES SINCE THE PREVIOUS REPORT	TOTAL DEATHS	CASE FATALITY RATE
AFRICA	1,415	-	18	1.27%
AMERICAS	58,629	-	76	0.13%
ASEAN	43	-	-	0.00%
ASIA PACIFIC	244	-	1	0.41%
EUROPE	25,572	-	5	0.02%
MIDDLE EAST	320	-	-	0.00%
TOTAL	86,223	-	100	0.12%

#### Mpox cases per region

### Research Update (Published and peer-reviewed studies)

- People living with HIV have accounted for 38-50% of those affected in the 2022 multicountry mpox outbreak.<sup>7</sup> Most reported cases were in people who had high CD4 cell counts and similar outcomes to those without HIV.<sup>7</sup> Emerging data suggest worse clinical outcomes and higher mortality in people with more advanced HIV.7 This paper, Mpox in people with advanced HIV infection: a global case series, describes the clinical characteristics and outcomes of mpox in a cohort of people with HIV and low CD4 cell counts (CD4< 350 cells per mm<sup>3</sup>).<sup>7</sup> A network of clinicians from 19 countries provided data of confirmed mpox cases between May 11, 2022, and Jan 18, 2023, in people with HIV infection.<sup>7</sup> This series included only adults older than 18 years living with HIV and with a CD4 cell count of less than 350 cells per mm<sup>3</sup> or in settings where a CD4 count was not always routinely available, an HIV infection clinically classified as US Centers for Disease Control and Prevention stage C.<sup>7</sup> Analyses were descriptive. Included were data from 382 cases: 367 cisgender men, four cisgender women, and ten transgender women. The median age of individuals included was 35 (IQR 30-43) years.<sup>7</sup> At mpox diagnosis, 349 (91%) individuals were known to be living with HIV; 228 (65%) of 349 adherent to antiretroviral therapy (ART); 32 (8%) of 382 had a concurrent opportunistic illness.<sup>7</sup> The median CD4 cell count was 211 (IQR 117-291) cells per mm<sup>3</sup>, with 85 (22%) individuals with CD4 cell counts of less than 100 cells per mm<sup>3</sup> and 94 (25%) with 100-200 cells per mm<sup>3,7</sup> Overall, 193 (51%) of 382 had undetectable viral load.<sup>7</sup> Severe complications were more common in people with a CD4 cell count of less than 100 cells per mm<sup>3</sup> than in those with more than 300 cells per mm<sup>3</sup>. including necrotising skin lesions (54% vs 7%), lung involvement (29% vs 0%) occasionally with nodules, and secondary infections and sepsis (44% vs 9%).7 Overall, 107 (28%) of 382 were hospitalised, of whom 27 (25%) died. All deaths occurred in people with CD4 counts of less than 200 cells per mm<sup>3</sup>.<sup>7</sup> Among people with CD4 counts of less than 200 cells per mm<sup>3</sup>, more deaths occurred in those with high HIV viral load.<sup>7</sup> An immune reconstitution inflammatory syndrome to mpox was suspected in 21 (25%) of 85 people initiated or reinitiated on ART, of whom 12 (57%) of 21 died. 62 (16%) of 382 received tecovirimat and seven (2%) received cidofovir or brincidofovir.<sup>7</sup> Three individuals had laboratory confirmation of tecovirimat resistance.<sup>7</sup> A severe necrotising form of mpox in the context of advanced immunosuppression appears to behave like an AIDS-defining condition, with a high prevalence of fulminant dermatological and systemic manifestations and death.<sup>7</sup> [Full text]
- Monkeypox (mpox) is a disease caused by an Orthopoxvirus.<sup>8</sup> The 2022 multinational outbreak, which began in May 2022, has spread primarily by close skin-to-skin contact, including through sexual contact.<sup>8</sup> Persons experiencing homelessness have been





disproportionately affected by severe mpox.<sup>8</sup> This paper, **Possible Undetected Mpox** Infection Among Persons Accessing Homeless Services and Staying in Encampments -San Francisco, California, October-November 2022 describes mpox prevalence and transmission pathways among persons experiencing homelessness.<sup>8</sup> The CDC field team recruited 284 participants from 16 unique sites (seven shelters, five service centers, two supportive housing locations, and two encampments): 240 (88%) consented to blood collection, and blood was successfully collected from 209 (77%).<sup>8</sup> Average participant age was 46 years; 69% reported male sex at birth, 59% reported male gender, and 9% were transgender and most (77%) were heterosexual.<sup>8</sup> The highest proportion of participants was non-Hispanic White (38%), followed by non-Hispanic Black or African American (32%); 70% were non-Hispanic.<sup>8</sup> A total of 207 participants were included in serologic analysis, after exclusion of two participants (1%) who reported both previous mpox infection and mpox vaccination.<sup>8</sup> Among 207 persons, three possible undetected mpox infections were detected.<sup>8</sup> Mpox infections might be undetected because of subclinical, atypical, or mild disease or because of barriers to seeking or accessing health care systems, which could have occurred among the participants in this survey.8 None of the participants with possible undetected mpox infections reported sexual contact during the preceding month, although some reported sharing utensils and smoking devices and spending time around or touching someone with a rash.<sup>8</sup> However, the timing of mpox exposure among these three persons is not known and could have preceded the survey period.<sup>8</sup> The transmission route for the three possible undetected mpox infections could not be determined; additional studies are needed to identify mpox transmission pathways among persons experiencing homelessness.<sup>8</sup> [Full text]

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