

COVID-19, Mpox, and Other Infectious Diseases

Situational Report in the ASEAN Region

ASEAN BioDiaspora Virtual Center (ABVC)

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COVID-19: Highlights and Situation Overview

Global Update

- Worldwide, there have been over 658 million cases and over 6 million deaths attributed to COVID-19.
- **US CDC:** According to the latest data from the Centers for Disease Control and Prevention (CDC) XBB omicron subvariants are now causing over 80% of COVID-19 infections in New England. The XBB.1.5 variant, which accounted for only about 10% of COVID cases in the region as recently as last month, now makes up 81.7% of all cases, with another 1.3% attributed to XBB. The BQ.1.1 subvariant accounts for 9% of COVID cases in New England, 5.2% for BQ.1, and 1.2% for BA.5.
- Canada: In Ontario, Canada, cases of a new, highly-transmissible Omicron subvariant have increased. According to the latest COVID-19 genomic surveillance report from Public Health Ontario released on January 17 (Tuesday), the XBB.1.5 subvariant is expected to account for 22.2% of COVID-19 cases by the end of this week—a significant jump from weeks ago when only 0.7% of COVID-19 cases were that of the XBB.1.5 subvariant. As of last week, the Omicron BQ.1.1 subvariant was still the dominant variant in Ontario.

Regional Update

- **Brunei** saw a decrease in the number of new COVID-19 cases last week, with an average daily rate of 223 cases per day, down from 350 cases per day the previous week.² Within one week, 38,751 antigen rapid test (ART) results were submitted to the BruHealth program, with 4% of them being positive.² In the weekly press conference, Minister of Health Dato Seri Setia Dr Mohd Isham Jaafar reported the decreasing trend.² [Full article]
- **Philippines:** Current COVID-19 health precautions in the Philippines will be maintained if the World Health Organization (WHO) declares the coronavirus's global health emergency phase to be over shortly. Maria Rosario Vergeire, the officer in charge of the Department of Health (DOH), stated on January 17 that protections against further virus spread should be maintained to assure the population's protection. If the global emergency status on COVID-19 is lifted, it will mostly affect the country's border controls, which have already been "gradually loosened" in the last year, according to Vergeire. Despite the relaxed border restrictions, the country's healthcare system was able to "handle our COVID-19 cases," she said. [Full article]

Vaccine Update

• Philippines: The Department of Health (DOH) announced on Wednesday (Jan 18) that the process of obtaining COVID-19 bivalent vaccines has hit a "roadblock" because the government has decided not to extend the coronavirus-induced state of calamity edict. Bivalent vaccines are vaccines that target certain COVID-19 variations, such as the more transmissible Omicron. According to Vergeire, the failure to extend the state of calamity designation means that the DOH must now revert to the standard procurement process, which takes longer because the DOH is no longer entitled to perform emergency procurement. Nonetheless, Vergeire told the public that, although negotiations are ongoing, they are also searching for measures to expedite the country's acquisition of bivalent vaccines. She also reported that certain countries, like the World Health Organization's COVID-19 Vaccines Global Access or Covax facility, had already offered to contribute doses of the bivalent vaccines to the Philippines. [Full article]



• **Singapore:** The Ministry of Health (MOH) announced on Tuesday (Jan 17) that there has been no rise in demand for COVID-19 vaccines in its private vaccination program, which allows tourists to receive mRNA jabs at their own expense. The program was launched in April of last year to make immunizations more accessible to people who do not qualify for free doses under the national vaccination program, such as short-term visitors. Concerns have been raised about the demand and supply of COVID-19 vaccinations in Singapore, although the Health Ministry has said that sufficient stock is accessible for Singaporeans and residents through its national vaccination program. [Full article]

Research Update (Published and peer-reviewed studies)

In the study Long COVID: major findings, mechanisms and recommendations, the researchers explored existing literature on long COVID-19 and highlighted key immunological findings, similarities with other diseases, symptoms, associated pathophysiological mechanisms, and diagnostic and therapeutic options, including COVID-19 vaccinations.3 Studies' findings have reported persistently reduced exhausted Tlymphocytes, dendritic cells, cluster of differentiation 4+ (CD4+) lymphocyte and CD8+ lymphocyte counts, and greater PD1 (programmed cell death protein-1) expression.³ Elevated autoantibody titers have been reported among long COVID patients, such as autoantibodies against ACE2 (angiotensin-converting enzyme 2), angiotensin II receptor type I (AT1) receptors, \(\beta^2 \)-adrenoceptors, anaiotensin 1-7 Mas receptors, and muscarinic M2 receptors.³ Long COVID-associated organ damage reportedly results COVID-19-induced inflammation and associated immune responses.3 Cardiovascular long COVID symptoms such as chest pain and palpitations have been associated with endothelial dysfunction, micro-clotting, and lowered vascular density.3 Long COVID has been associated with an increased risk of renal damage and type 2 diabetes.³ Ophthalmic symptoms of long COVID, including altered pupillary responses to light, result from the loss of small nerve fibers in the cornea, increased dendritic cell density, and impaired retinal microvasculature.³ Respiratory symptoms such as persistent cough and breathlessness result from altered pulmonary perfusion, epithelial injury, and air entrapment in the airways.3 Cognitive and neurological long COVID symptoms include loss of memory, cognitive decline, sleep difficulties, paresthesia, balancing difficulties, noise and light sensitivity, tinnitus, and taste and/or smell loss.3 Underlying pathophysiological mechanisms include kynurenine pathway activation, endothelial injury, coagulopathy, lower cortisol levels, loss of myelin, microglial reactivation, oxidative stress, hypoxia, and tetrahydrobiopterin deficiency.3 Gastrointestinal symptoms such as pain in the abdomen, nausea, appetite loss, constipation, and heartburn have been associated with elevated Bacteroides vulgatus and Ruminococcus gnavus counts and lower Faecalibacterium prausnitzii counts.3 Neurological symptoms often have a delayed onset, worsen with time and persist longer than respiratory and gastrointestinal symptoms, and long COVID presents similarly in children and adults.3 [Full text]

Cases and Deaths as of 18 January 2023

- As of 18 January 2023 (1PM, GMT+7), worldwide, there were **658,850,903** confirmed cases, including **6,723,993** deaths. Globally, Case Fatality Rate (CFR) was **1.2%**.
- 35,551,254 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	17-Jan-23	272,646	-	225	-	62,925	450,404	445,929	338,987	99.3
REGION	Cambodia	27 Jan 20	17-Jan-23	138,665	1	3,056	-	841	15,241,969	14,607,080	10,424,952	87.1
	Indonesia	02 Mar 20	17-Jan-23	6,726,668	357	160,746	7	2,486	204,045,153	174,799,346	68,616,692	63.5
	Lao PDR	24 Mar 20	17-Jan-23	217,934	7	758	-	3,040	5,888,649	5,222,417		69.4
	Malaysia	25 Jan 20	17-Jan-23	5,033,254	350	36,919	5	15,754	28,124,169	27,535,601	17,017,823	81.1
	Myanmar	23 Mar 20	17-Jan-23	633,763	10	19,490	-	1,173	34,777,314	27,545,329	2,227,351	50.8
	Philippines	30 Jan 20	17-Jan-23	4,070,675	84	65,618	4	3,765	78,359,629	73,920,177	21,318,580	64.0
	Singapore	23 Jan 20	17-Jan-23	2,208,748	276	1,717	-	38,726	5,161,990	5,120,768	4,440,289	90.8
	Thailand	13 Jan 20	17-Jan-23	4,725,885	-	33,792	-	6,788	57,005,497	53,486,086	32,143,431	74.6
	Vietnam	23 Jan 20	17-Jan-23	11,526,213	46	43,186	-	11,949	90,427,458	85,705,657	57,435,666	87.3
		AN COUNTRIES	35,554,451	1,131	365,507	16	147,445	519,482,232	468,388,390	213,963,771		

^{*}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	17-Jan-23	208,009	16	7,859	2	547	11,533,150	10,825,004		26.3
PACIFIC	Australia	25-Jan-20	11-Jan-23	11,212,712	-	17,304	-	43,714	22,235,981	21,655,105	19,743,221	82.7
REGION	Bangladesh	08-Mar-20	17-Jan-23	2,037,377	9	29,441	-	1,250	150,584,398	130,405,812	65,634,610	76.2
	Bhutan	05-Mar-20	17-Jan-23	62,577	26	21	-	8,200	699,116	677,669	634,641	86.6
	People's Republic of China*		17-Jan-23	12,592,020	23,808	34,197	0	77,827	1,339,515,124	1,304,360,424	213,862,363	89.6
	Cook Islands	17-Feb-22	16-Jan-23	6,959	-	2	-	32,537	15,084	14,715	10,209	86.4
	Fiji	18-Mar-20	13-Jan-23	68,793	-	883	-	7,730	711,658	640,668	170,563	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	13-Jan-23	60,442	-	415	-	36,129	158,609	144,050		85.5
	India	30-Jan-20	17-Jan-23	44,681,233	79	530,726	-	3,270	1,027,249,529	951,337,907	223,094,923	67.1

Japan	16-Jan-20	19-Oct-22	21,858,528	_	46,014	_	17,312	104,594,997	103,200,700	167,558,946	83.3
Kiribati	25-Jan-22	13-Jan-23	4,921	-	17	-	4,184	96,184	73,888	23,419	56.3
Maldives	07-Mar-20	10-Jan-23	185,702	-	311	-	34,975	399,151	385,081	167,187	73.5
Marshall Islands	26-Oct-20	02-Jan-23	15,554	-	17	-	26,456	43,310	34,694		44.6
Micronesia	11-Jan-21	10-Jan-23	22,247	-	58	-	19,547	84,542	71,147		69.5
Mongolia	10-Mar-20	14-Jan-23	1,007,821	-	2,179	-	31,249	2,272,965	2,175,617	1,044,337	64.0
Nepal	24-Jan-20	17-Jan-23	1,001,059	3	12,020	-	3,499	27,588,121	24,082,373	8,732,721	78.8
New Caledonia	17-Mar-20	17-Jan-23	79,785	61	314	-	27,722	192,213	184,656	101,655	63.7
New Zealand	28-Feb-20	16-Jan-23	2,157,933	-	3,676	-	43,887	4,300,097	4,138,926	3,523,903	79.8
Niue	03-Sep-21	16-Jan-23	721	-	-	-	33,287	1,636	1,634	1,224	83.7
Northern Mariana Islands	28-Mar-20	13-Jan-23	13,430	-	41	-	23,472	46,502	43,853		84.6
Pakistan	26-Feb-20	17-Jan-23	1,576,086	5	30,640	-	728	154,665,740	131,368,973	49,551,181	55.7
Palau	31-May-21	15-Jan-23	5,980	-	9	-	33,207	20,735	18,483		85.8
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	10-Jan-23	16,008	-	29	-	8,122	191,163	177,721	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	17-Jan-23	29,880,958	36,894	33,041	43	57,787	44,866,936	44,447,840	41,325,954	85.8
Sri Lanka	27-Jan-20	17-Jan-23	671,968	2	16,824	1	3,082	17,143,761	14,752,827	8,220,002	67.6
Timor Leste	21-Mar-20	17-Jan-23	23,406	1	138	-	1,810	878,845	790,466	315,249	58.9
Tonga	05-Nov-21	12-Jan-23	16,590	-	13	-	15,877	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	7,136	6,794	3,742	58.6
		ASIA PACIFIC	146,674,770	60,904	869,168	46	675,338	2,969,179,091	2,800,154,277	845,452,470	

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

• 476,621,682 confirmed cases of COVID-19 have been reported in other 4 regions (other than ASEAN and Asia-Pacific

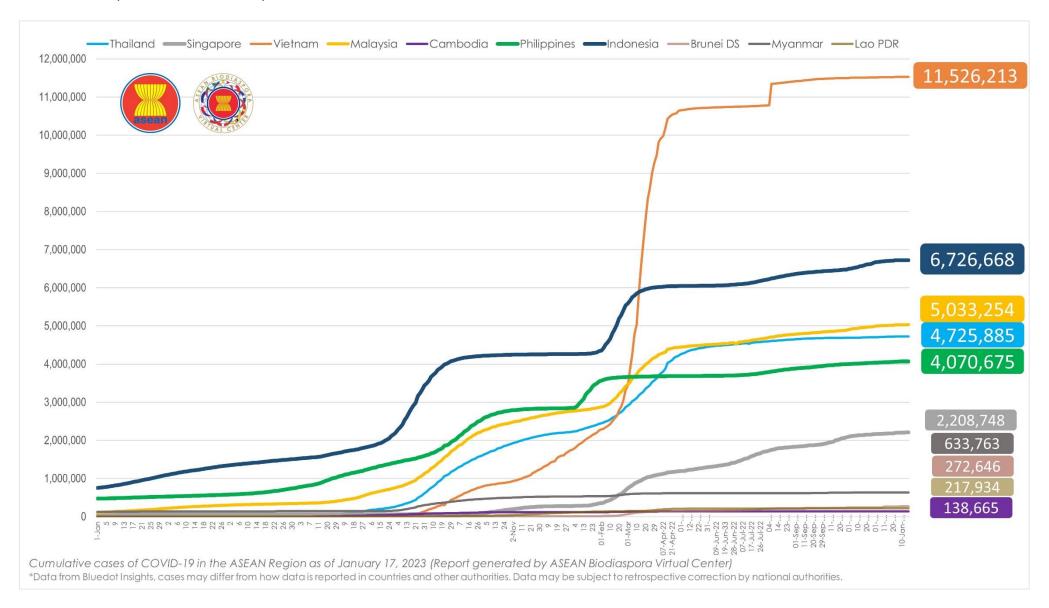
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REGION	TOTAL CONFIRMED CASES	NEW CASES	TOTAL DEATHS	NEW DEATHS	CUMULATIVE CASES/ 100,000	CUMULATIVE VACCINATED	CUMULATIVE FULLY VACCINATED	CUMULATIVE BOOSTERED
AFRICA	13,018,789	346	259,363	1	248,044	478,777,345	393,198,671	64,201,066
AMERICAS	191,117,869	6,740	2,938,049	44	1,234,903	835,022,280	734,309,886	494,416,561
EUROPE	249,805,385	9,930	2,052,811	104	2,099,894	569,300,904	540,819,334	381,529,031
MIDDLE EAST	22,679,639	469	239,095	4	215,628	144,675,344	129,968,507	60,061,782
TOTAL	476,621,682	17,485	5,489,318	153	3,798,469	2,027,775,873	1,798,296,398	1,000,208,440

^{**}Republic of Korea – South Korea

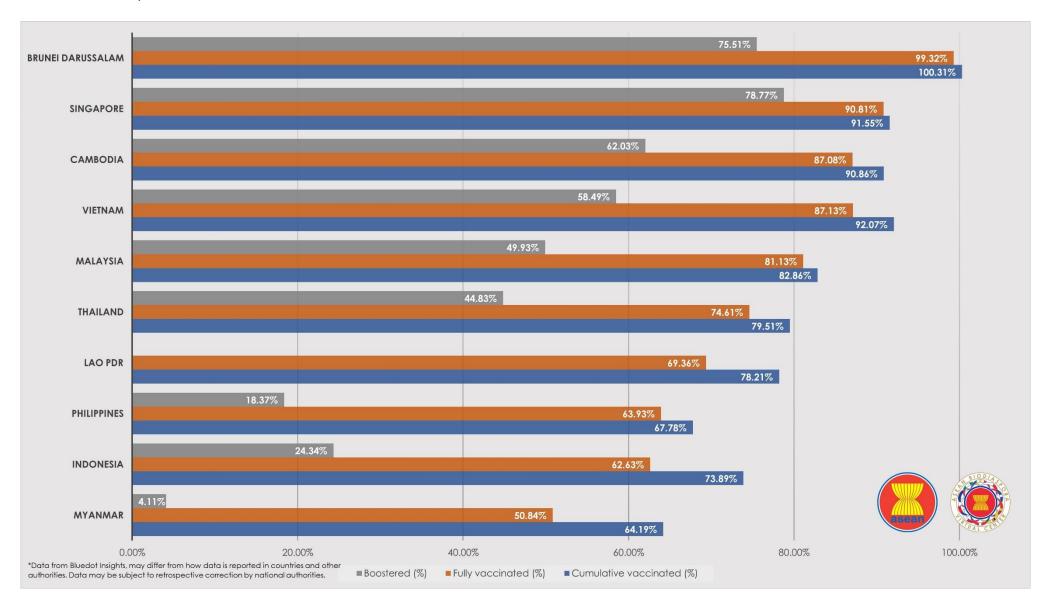
COVID-19 Epi curve among ASEAN Countries:

From January 1, 2021 to January 17, 2023



ASEAN COVID-19 Vaccination Status

as of 17 January 2023



ASEAN COVID-19 Outlook Assessment

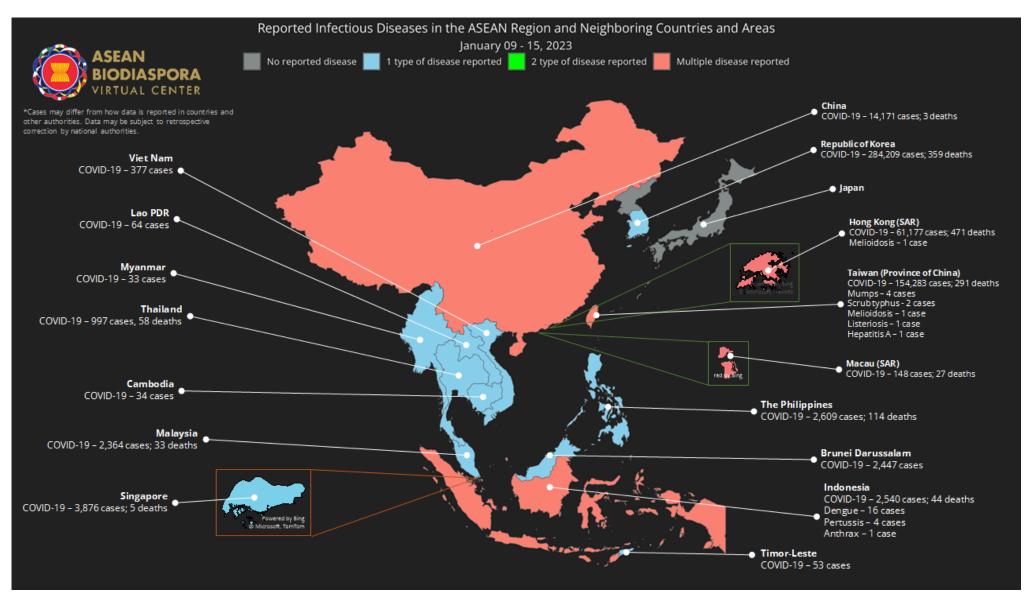
as of 15 January 2023

ASEAN MEMBER STATE	immunity to COVID-19; eith 19 or have been vaccinate	population has a level of 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%).	Government Policy on containment and health (strictness and comprehensiveness in COVID-19 related government policies)	
	% of Total population fully Population vaccinated/day vaccinated / boosted (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	288.79	31.0/100	
Cambodia	≥90.0/62.0	Unknown	0.03	31.5/100	
Indonesia	66.1/24.3	Unknown	0.18	54.2/100	
Lao PDR	77.3/ND	Unknown	0.13	61.6/100	
Malaysia	84.5/49.9	0%/day	1.44	51.8/100	
Myanmar	52.1/4.1	Unknown	0.08	69.1/100	
Philippines	71.5/18.4	Unknown	0.28	55.4/100	
Singapore	≥90.0/78.8	0%/day	15.75	58.9/100	
Thailand	77.7/44.8	Unknown	0.43	31.5/100	
Vietnam	≥90.0/58.5	Unknown	0.07	43.5/100	

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

Infectious Diseases in ASEAN Region and Neighboring Countries

From January 9-15, 2023



Infectious Diseases Other than COVID-19 and Mpox

January 9-15, 2023

Infectious Disease in ASEAN region and Neighboring Countries Updates

Anthrax

Indonesia. Solopos.com, GUNUNGKIDUL — A resident from Eromoko District, Wonogiri Regency, tested positive for anthrax during an examination at Karangmojo Health Center 2, Gunungkidul Regency, Yogyakarta Special Region.¹ The head of the Gununakidul Health Service, Dewi Irawaty, said the findings of the anthrax case began when the resident from Eromoko checked himself at the Karangmojo Health Center 2 in December 2022.1 At that time, the complaints were felt due to skin injuries.1 "When he was examined he was in the suspect category and after testing it turned out to be positive," said Dewi to reporters, Tuesday (10/1/2023).1 He said that the resident who tested positive for anthrax was a resident of Eromoko, Wonogiri and he was visiting his relative's house in Kapanewon Karangmojo. The Health Office together with the Gunungkidul Animal Husbandry and Animal Health Service had tests carried out, the result was that no one in the family was infected with this disease. Head of the Animal Health Division of the Gunungkidul Livestock and Animal Health Service, Retno Widiastuti, admitted that anthrax cases are nothing new in Gunungkidul.¹ At the beginning of last year, cases of livestock suddenly dying and residents testing positive for anthrax were found in Kapanewon Gedangsari and Ponjong. Retno confirmed that up to now there are three sub-districts that have entered the anthrax control program.¹ These three sub-districts cover Hargomulyo, Kapanewon Gedangsari; Bejiharjo, Kapanewon Karangmojo and Gombang in Kapanewon Ponjong.¹ "Control is still ongoing by giving an athrax vaccine for the next ten years," he said. [Full article]

Dengue Cases in ASEAN Region

From January 1 to 15, 2023



Dengue cases in ASEAN region

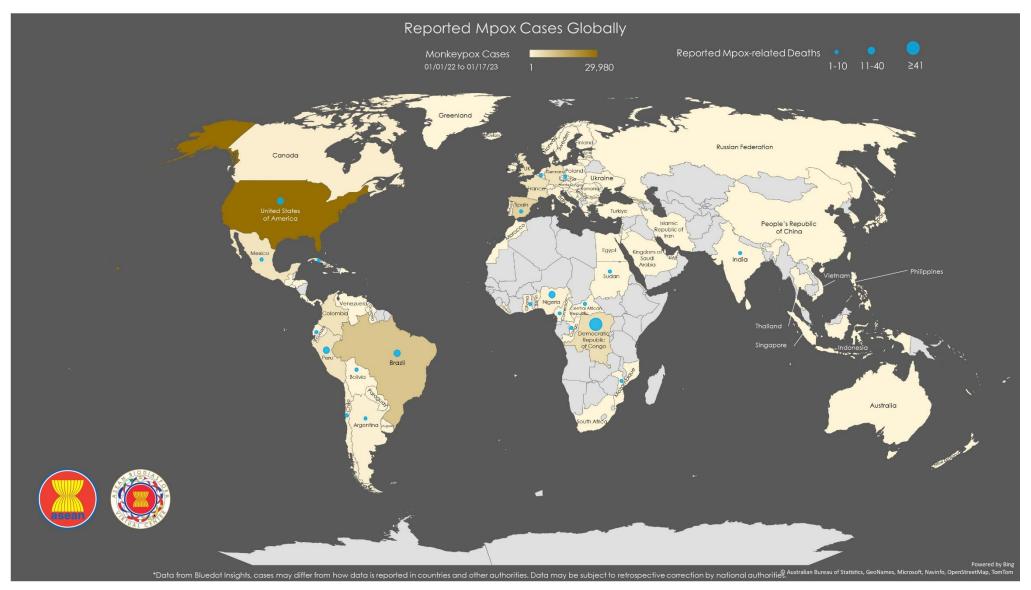
Country	Dengue Cases	New Cases in the Past Week	Deaths	Case Fatality Rate (CFR)
Brunei Darussalam	-	-	-	-
Cambodia	-	-	-	-
Indonesia	16	16	-	0.00%
Lao PDR	-	-	-	-
Malaysia	-	-	-	-
Myanmar	-	-	-	-
Philippines	-	-	-	-
Singapore	-	-	-	-
Thailand	-	-	-	-
Vietnam	-	-	-	-
Total	16	16	-	0.00%

^{*}Data from Bluedot Insights, cases may differ from how data is reported in countries and other authorities. Data may be subject to retrospective correction by national authorities.

ASEAN region reported 16 new dengue cases from January 9 to 15, 2023 from Indonesia.
 The region reported 16 total cases and 0 total deaths in 2023 with 0.00% CFR.

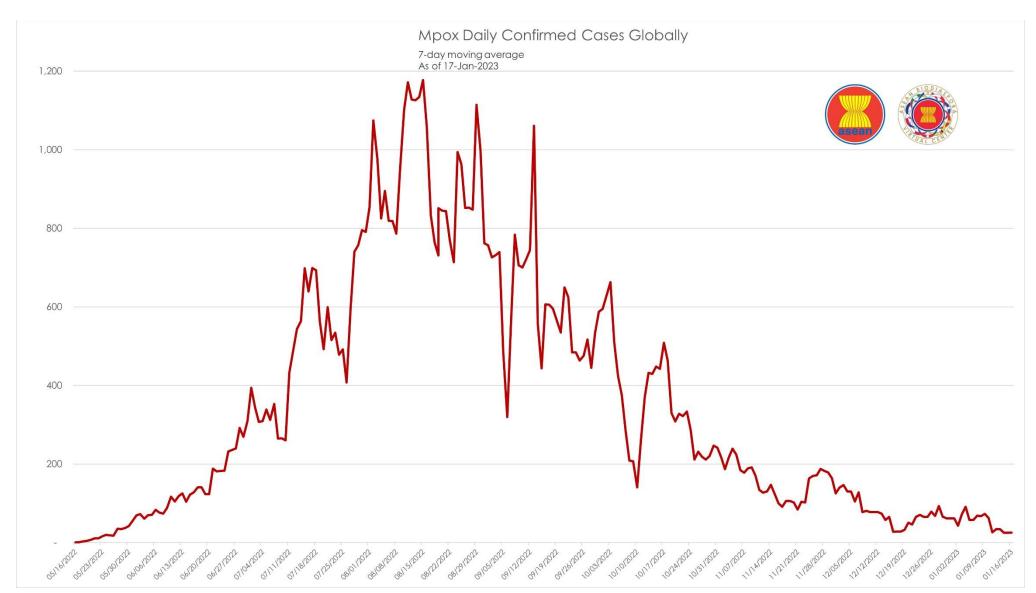
Mpox (Monkeypox) Cases Reported Globally

as of January 17, 2023



Mpox Daily Trend Globally

as of January 17, 2023



Mpox: Highlights and Situation Overview

- As of 18 January 2023 (1PM, GMT+7), worldwide, there were **91,143** confirmed cases, including **227** deaths. Globally, Case Fatality Rate (CFR) was **0.25%**.
- 40 confirmed cases in the ASEAN region, with CFR of 0%.
- 91,103 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	19	-	-	0.00%
Thailand	12	-	-	0.00%
Vietnam	4	-	-	0.00%
ASEAN Total	40	-	-	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	23	-	1	5.00%
Japan	8	-	-	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	0.45%

^{*}People's Republic of China – including Hongkong (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	29,980	-	21	0.07%
Brazil	10,599	-	14	0.13%
Spain	7,505	-	3	0.04%
Democratic Republic of Congo	5,114	-	120	2.35%
France	4,114	-	-	0.00%

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	57,624	-	60	0.10%
ASEAN	40	-	-	0.00%
ASIA PACIFIC	232	-	1	0.43%
EUROPE	26,145	1	5	0.02%
MIDDLE EAST	319	-	-	0.00%
TOTAL	91,143	1	227	0.25%

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