

# COVID-19 and Monkeypox Situational Report in the ASEAN Region

- ASEAN BioDiaspora Virtual Center (ABVC)

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## Global Update

- Worldwide, there have been over 638 million cases and over 6 million deaths attributed to COVID-19.
- Paxlovid: According to a recent study by researchers at the US Department of Veterans Affairs, Paxlovid, an antiviral medication that lowers the risk of hospitalization and mortality from COVID-19, also lowers the chance of long-term COVID.<sup>5</sup> The study, which was published online as a preprint on November 5, examined electronic records for over 56,000 veterans who had COVID-19, including over 9,000 who had Paxlovid treatment during the first five days of their infection.<sup>5</sup> A number of long-term diseases, such as heart disease, blood disorders, fatigue, liver disease, renal disease, muscle discomfort, neurocognitive impairment, and shortness of breath were found to be 26% less likely to develop in those on Paxlovid, according to the review.<sup>5</sup> Three months after their diagnosis, there were 2.3 fewer cases of long-term COVID problems per 100 persons.<sup>5</sup> Additionally, paxlovid decreased the likelihood of hospitalization or death after acute COVID-19.<sup>5</sup> In the investigation, there was no statistically significant correlation between taking Paxlovid and the incidence of cough and a new diagnosis of diabetes, two long-standing diseases.<sup>5</sup> The study wasn't peer-reviewed or published in a medical journal; instead, it was uploaded to the preprint server medRxiv.<sup>5</sup> [Full Article]
- **People's Republic of China:** A day after health officials declared they would maintain tough coronavirus bans, China yesterday revealed the greatest number of new COVID-19 infections in six months, shattering hopes for a relaxation.<sup>7</sup> The Chinese National Health Commission reported that 4,420 new locally transmitted COVID-19 infections were reported in China on November 5, which is a rise from the 3,659 new local cases reported the previous day and the largest since May 6.<sup>7</sup> China has maintained a "zero COVID-19" strategy for almost three years, encompassing lockdowns, quarantines, frequent testing, and a sharp decline in inbound travel, despite the fact that case numbers are incredibly low by worldwide standards.<sup>7</sup> [Full Article]
- **Republic of China:** The Central Epidemic Command Center (CECC) said on November 6 that confirmed COVID-19 cases must isolate at home for seven days starting on November 7.8 After that, individuals may engage in up to seven days of self-health care, which can stop when they test negative with a fast test.8 The "7+7" guideline, which called for confirmed cases to isolate at home for seven days before engaging in seven days of self-health management, is being replaced by the new "7+n" policy.8 On November 14 of next week, the "7+n" isolation rule would be further condensed to "5+n," according to the CECC.8 [Full Article]

## **Regional Update**

- Brunei Darussalam continued to have no COVID-19 instances in categories 4 and 5, which call for critical care unit treatment and respiratory support, respectively. In the previous 24 hours, no COVID-19 fatalities were reported. On November 5 in the evening, the Ministry of Health (MoH) daily bulletins included the encouraging development. [Full Article]
- Indonesia: In spite of a recent increase in COVID-19 cases and local transmissions of the
  novel XBB strain of the Omicron variant, the government will maintain the four-tiered
  public activity restrictions (PPKM) level.<sup>6</sup> On November 4, Coordinating Maritime Affairs
  and Investment Minister Luhut Pandjaitan said on Instagram, "I emphasize that the
  government will keep utilizing the PPKM level as the foundation for activity limitations for



- citizens, which we will also keep evaluating.<sup>6</sup>" The minister, who is in charge of the government's pandemic responses in Java and Bali, stated that earlier on November 4, he recommended caution and reevaluation at the PPKM evaluation conference due to the recent increase in new daily cases that exceeded the 5,000 threshold.<sup>6</sup>
- The **Singapore** government will provide residents with 12 antigen rapid test (ART) kits from November 21 as part of efforts to encourage people to test themselves for COVID-19 if they are unwell. This is the fourth national distribution of ART kits to households, adding that regular self-testing is a key line of defense in Singapore's approach towards COVID-19 to enable early detection and isolation. The Ministry of Health (MOH) stated that as reinfections become more common, those who experience symptoms like cough, sore throat, runny nose, or fever, after 28 days from their previous infection, should also test themselves for COVID-19. It added that those who test negative but feel unwell should also reduce social interactions as they may have other respiratory viruses such as influenza. MOH said that it will also work with the Ministry of Education and the Early Childhood Development Agency to provide additional test kits to students from lower-income households.

## **Vaccine Update**

• Japan: Since the COVID-19 vaccines were first used in Japan in late September, the number of persons receiving the vaccines has been slowly declining.<sup>4</sup> This is probably because the country's sense of crisis is fading.<sup>4</sup> The vaccines target the omicron forms of the virus.<sup>4</sup> The change occurs after the so-called seventh wave of infections for the summer has passed.<sup>4</sup> The omicron-specific vaccines, which can lessen the severity of a potential eighth wave that is predicted to hit Japan this winter, are being encouraged by experts to be given early.<sup>4</sup> Only 5.9% of Japan's overall population has received the new immunizations, according to official figures released on November 4.<sup>4</sup> A total of approximately 7.38 million doses had been given.<sup>4</sup> To complete the immunization of all those wanting to receive the new vaccines by the end of this year, the government has stated that it plans to deliver more than 1 million doses every day.<sup>4</sup> However, the number of daily doses is now less than 500,000.<sup>4</sup> [Full Article]

## Research Update

- A study on Twice daily oral zinc in the treatment of patients with Coronavirus Disease-19 A randomized double-blind controlled trial published in Clinical Infectious Diseases found that Tunisian COVID-19 patients given who were given oral zinc twice daily had a nearly 40% lower rate of death and intensive care unit (ICU) admission. The double-blind, multicenter trial involved 190 adult COVID-19 outpatients and 280 hospitalized patients randomly assigned to receive oral zinc (231 patients) or a placebo (239) for 15 days, from February 15 to May 4, 2022. The 30-day death rate was 6.5% among zinc recipients and 9.2% in the placebo group and 5.2% and 11.3%, respectively, were admitted to an ICU. The zinc group was also less likely to experience the combined outcome of death or ICU admission. Hospital stays were shorter among zinc recipients than among those given a placebo, as was the duration of symptoms among outpatients. The results were similar in patients older than 65 years and those with underlying medical conditions or the need for supplemental oxygen at baseline. [Full Text]
- In the study on the Effectiveness of mRNA COVID-19 vaccine booster doses against
  Omicron severe outcomes, researchers estimated the effectiveness of monovalent
  messenger ribonucleic acid (mRNA) COVID-19 vaccines against severe acute
  respiratory syndrome coronavirus 2 (SARS-CoV-2) Omicron variant of concern (VOC)
  infection severity outcomes among adults.<sup>11</sup> The study included community residents



aged 50 years and above with ≥1 RT-PCR report for SARS-CoV-2 between January 2, 2022, and October 1, 2022.<sup>11</sup> The participants were also stratified by time elapsed since COVID-19 vaccination and age.<sup>11</sup> Omicron was detected in almost all SARS-CoV-2-positive samples by late January 2022. A total of 11,160 and 62,880 individuals with Omicron infection-associated severity outcomes and test-negative (TN) symptomatic control individuals, respectively, were considered for the analysis.<sup>11</sup> Compared to non-vaccinated individuals, the vaccine effectiveness (VE) estimates ranged between 91% and 98% in 7 to 59 days post 3<sup>rd</sup> dose but reduced to 76% to 87% after ≥8.0 months.<sup>11</sup> In 7 to 59 days post 4<sup>th</sup> dose, VE restored between 92% and 97% but reduced to 86% to 89% after ≥4.0 months.<sup>11</sup> The VE estimates were lower during Omicron BA.4/5 predominance compared to those observed during Omicron BA.1 and BA.2 predominance based on a similar number of days elapsed since COVID-19 vaccination.<sup>11</sup> [Full Text]

- The study Complexity and Challenges of the Clinical Diagnosis and Management of Long COVID, shows the implications of SARS-CoV-2 infection on long-term health are becoming more well acknowledged (sometimes called long COVID). The clinical diagnosis and management of extended COVID within health systems, however, are still poorly understood. Data from the electronic health records (EHRs) of 200 patients in the Department of Veterans Affairs (VA) were used for this qualitative analysis. The patients had to have documentation of a positive PCR test result for SARS-CoV-2 between February 27, 2020, and December 31, 2021, as well as an ICD-10 diagnostic code for long COVID between October 1, 2021, the date the code was implemented, and March 1, 2022. Between February 5 and May 31, 2022, data were evaluated. Two main themes emerged from this qualitative study: (1) clinical uncertainty regarding the contribution of specific symptoms to long COVID; and (2) care fragmentation because post-COVID-19 care processes were frequently compartmentalized from other forms of care and could be burdensome for patients. These results demonstrate how challenging it can be to diagnose and treat long COVID in clinical settings.
- The experiment in the study **A novel deep learning-based method for COVID-19 pneumonia detection from CT images**, pitted AI against radiologists. <sup>14</sup> The findings demonstrated that the AI model had a high accuracy of 93.84% and sensitivity of 92.15% in detecting COVID-19, which was superior to inexperienced radiologists and comparable to professional radiologists. <sup>14</sup> This suggests that the AI model may help beginner radiologists perform much better. <sup>14</sup> This study discovered that, compared to all radiologists, the AI technique demonstrated a significant time savings in addition to diagnostic sensitivity and accuracy. <sup>14</sup> Therefore, COVID-19 may be detected fast and precisely with the aid of the AI model. <sup>14</sup> The medical system will receive considerable support from the AI model, particularly in regions with a deficient medical infrastructure. <sup>14</sup> [Full Text]
- Due to immune system activation, cytokine storm brought on by COVID-19 can result in high morbidity and death and may be more frequent in cancer patients receiving immunotherapy according to the study *Interplay of Immunosuppression and Immunotherapy Among Patients with Cancer and COVID-19*. 15 12 046 patients reported to the COVID-19 and Cancer Consortium (CCC19) registry between March 2020 and May 2022 were included in this registry-based retrospective cohort analysis. 15 Patients with active or past cancer who had a laboratory-confirmed infection with SARS-CoV-2 by PCR and/or serologic results were included in the records examined. 15 The main result was a COVID-19 severity score on a 5-level ordinal scale: no complications, hospitalization without needing oxygen, hospitalization with needing oxygen, admission to an intensive care unit and/or mechanical ventilation, and death. 15 The occurrence of a cytokine storm was the secondary result. 15 This cohort study discovered that the delivery of systemic anticancer medicines, particularly immunotherapy, in the context of baseline immunosuppression, was associated with serious clinical outcomes and the emergence of cytokine storm in patients with cancer and COVID-19. 15 [Full Text]



- Prior to Infection with Risk of Post–COVID-19 Conditions, participants were chosen from three sizable ongoing longitudinal studies: the Growing Up Today Study, Nurses' Health Study III, and Nurses' Health Study II (GUTS). 16 105 662 people were asked to respond to an online COVID-19 survey from April to May 2020. 16 The analysis was restricted to 54,960 people who had completed at least 1 follow-up questionnaire and had not previously reported a positive test for SARS-CoV-2. 16 A 1.3- to 1.5-fold increased risk of self-reported post-COVID-19 conditions, as well as an increased risk of daily life impairment due to post-COVID-19 conditions, were prospectively associated with depression, anxiety, perceived stress, loneliness, and worry about COVID-19 in 3,193 people who reported a positive SARS-CoV-2 test result over a year of follow-up. 16 [Full Text]
- Lessons discovered in the study **A reinvigorated multilateralism in health: lessons and innovations from the COVID-19 pandemic**: Pandemics are occurring more frequently.<sup>17</sup> The false choice between public health and economic objectives must be overcome.<sup>17</sup> Social injustices have become more pronounced. In order to effectively address a global public health concern, national leadership is essential. Health security is promoted via regional cooperation.<sup>17</sup> Without global answers, no local response to a pandemic can be effective.<sup>17</sup> To put these lessons into reality, a number of improvements have been suggested, including (1) the creation of an international sentinel network of healthcare facilities that can quickly gather and share data about any developing disease and so prevent any national cover-up of outbreaks.<sup>17</sup> (2) flexible technical platforms that allow the scientific community to move quickly in determining the characteristics of emerging infections and creating the drugs, vaccines, and other instruments needed to stop the spread of infectious illnesses in the future.<sup>17</sup> (3) establishing a global quick deployment force with the capability to employ cuttingedge equipment on demand.<sup>17</sup> [Full Text]



- As of 07 November 2022 (2PM, GMT+8), worldwide, there were **638,164,561** confirmed cases, including **6,613,553** deaths. Globally, Case Fatality Rate (CFR) was **1.2%.**
- 35,001,236 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%

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	03-Nov-22	241,044	-	225	-	55,632	450,060	445,424	337,552	99.2
REGION	Cambodia	27 Jan 20	03-Nov-22	137,995	-	3,056	-	837	18,317,500	14,578,628	10,272,280	86.9
	Indonesia	02 Mar 20	03-Nov-22	6,521,292	3,662	158,829	22	2,410	204,315,646	170,975,417	64,363,636	62.1
	Lao PDR	24 Mar 20	03-Nov-22	216,281	4	758	-	3,017	5,888,649	5,222,417		69.4
	Malaysia	25 Jan 20	03-Nov-22	4,927,451	3,913	36,487	5	15,422	28,110,058	27,520,406	16,781,416	81.1
	Myanmar	23 Mar 20	03-Nov-22	632,274	135	19,485	1	1,170	34,777,314	27,545,329	2,227,351	50.8
	Philippines	30 Jan 20	03-Nov-22	4,008,550	1,232	64,240	29	3,708	77,994,168	73,449,131	20,425,579	63.6
	Singapore	23 Jan 20	03-Nov-22	2,118,052	2,686	1,686	1	37,136	5,163,385	5,123,895	4,440,289	90.9
	Thailand	13 Jan 20	03-Nov-22	4,692,448	-	32,955	-	6,740	57,005,497	53,486,086	32,143,431	74.6
	Vietnam	23 Jan 20	03-Nov-22	11,505,849	241	43,166	1	11,928	90,044,496	84,433,722	69,805,302	86.0
		ASEAN C	OUNTRIES	35,001,236	11,873	360,887	59	137,998	522,066,773	462,780,455	220,796,836	

<sup>\*</sup>There have been no tests reported in the last 14 days in the ASEAN 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	06-Nov-22	203,681	107	7,826	-	535	11,165,700	10,458,947		25.4
PACIFIC	Australia	25-Jan-20	02-Nov-22	10,379,850		15,662	-	40,467	22,443,557	21,784,904	14,265,648	83.2
REGION	Bangladesh	08-Mar-20	06-Nov-22	2,035,828	46	29,426	1	1,249	141,806,551	124,236,745	58,036,158	72.6
	Bhutan	05-Mar-20	01-Nov-22	62,380	1	21	-	8,175	699,116	677,669	634,641	86.6
	People's Republic of China*		06-Nov-22	10,094,596	24,933	28,887	47	59,653	1,333,125,065	1,300,052,001	836,792,258	87.8
	Cook Islands	17-Feb-22	14-Sep-22	6,389	-	1	-	29,872	15,084	14,708	10,206	86.4
	DPR Korea	24-Jul-20	29-Jul-22	4,772,814	-	74	-	18,596				
	Fiji	18-Mar-20	04-Nov-22	68,270	-	878	-	7,671	710,660	639,273	167,983	68.8
	French Polynesia	12-Mar-20	26-Oct-22	76,758	-	649	-	27,484	190,155	185,643	111,840	60.6
	Guam	15-Mar-20	04-Nov-22	58,907	-	404	-	35,212	157,402	142,956		84.9
	India	30-Jan-20	06-Nov-22	44,659,356	1,132	530,500	14	3,268	1,026,901,188	950,251,445	219,986,173	67.1
	Japan	16-Jan-20	06-Nov-22	21,858,528	-	46,014	-	17,312	104,284,269	102,932,703	125,178,078	83.0
	Kiribati	25-Jan-22	25-Jul-22	3,430	-	13	-	2,917	93,685	70,464	14,233	53.7
	Maldives	07-Mar-20	01-Nov-22	185,364	-	308	-	34,912	399,126	385,014	167,059	73.5

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Marshall Islands	26-Oct-20	19-Oct-22	15,389	-	17	-	26,176	42,916	34,305		44.1
Micronesia	11-Jan-21	31-Oct-22	22,203	-	55	-	19,508	82,137	69,096		67.5
Mongolia	10-Mar-20	05-Nov-22	985,445	-	2,179	-	30,555	2,272,965	2,175,617	1,044,337	64.0
Nepal	24-Jan-20	06-Nov-22	1,000,734	26	12,019	-	3,498	27,290,944	23,389,561	8,437,701	76.6
New Caledonia	17-Mar-20	04-Nov-22	74,440	-	314	-	25,865	191,613	184,081	93,822	63.5
New Zealand	28-Feb-20	31-Oct-22	1,851,689	-	3,103	_	37,659	4,298,557	4,135,113	3,409,421	79.8
Niue	03-Sep-21	23-Oct-22	85	-	-	-	3,924	1,650	1,436	1,094	73.6
Northern Mariana Islands	28-Mar-20	01-Nov-22	13,212	-	41	-	23,091	46,252	43,726		84.3
Pakistan	26-Feb-20	06-Nov-22	1,574,359	38	30,627	-	727	139,549,436	132,077,329	47,041,086	56.0
Palau	31-May-21	30-Oct-22	5,513	-	7	-	30,614	20,668	18,426		85.6
Papua New Guinea	21-Mar-20	02-Nov-22	45,465	-	668	-	518	356,545	296,607	28,261	2.9
Republic of Korea	20-Jan-20	06-Nov-22	25,838,239	36,675	29,372	18	49,968	45,121,967	44,691,950	41,216,030	86.3
Samoa	18-Nov-20	19-Oct-22	15,946	-	29	-	8,090	191,108	177,605	78,912	79.9
Solomon Islands	03-Oct-20	11-Jun-22	21,544	-	153	-	3,216	343,821	254,352	27,783	35.1
Sri Lanka	27-Jan-20	06-Nov-22	671,328	8	16,782	-	3,079	17,143,761	14,752,827	8,220,002	67.6
Timor Leste	21-Mar-20	03-Nov-22	23,303	-	138	-	1,802	859,542	758,817	238,208	56.6
Tonga	05-Nov-21	06-Sep-22	16,182	-	12	-	15,486	90,881	76,800	38,082	71.9
Turkey	10-Mar-20	12-Oct-22	16,918,231	-	101,198	-	20,278	57,936,783	53,171,790	41,366,484	62.3
Vanuatu	11-Nov-20	02-Nov-22	11,952	-	14	-	3,986	176,038	161,288	27,697	49.4
Wallis et Futuna	17-Oct-20	28-Jul-22	761	-	7	-	4,749	7,136	6,794	3,742	58.6
		ASIA PACIFIC	143,572,171	62,965	857,398	80	600,112	2,938,016,278	2,788,309,992	1,406,636,939	

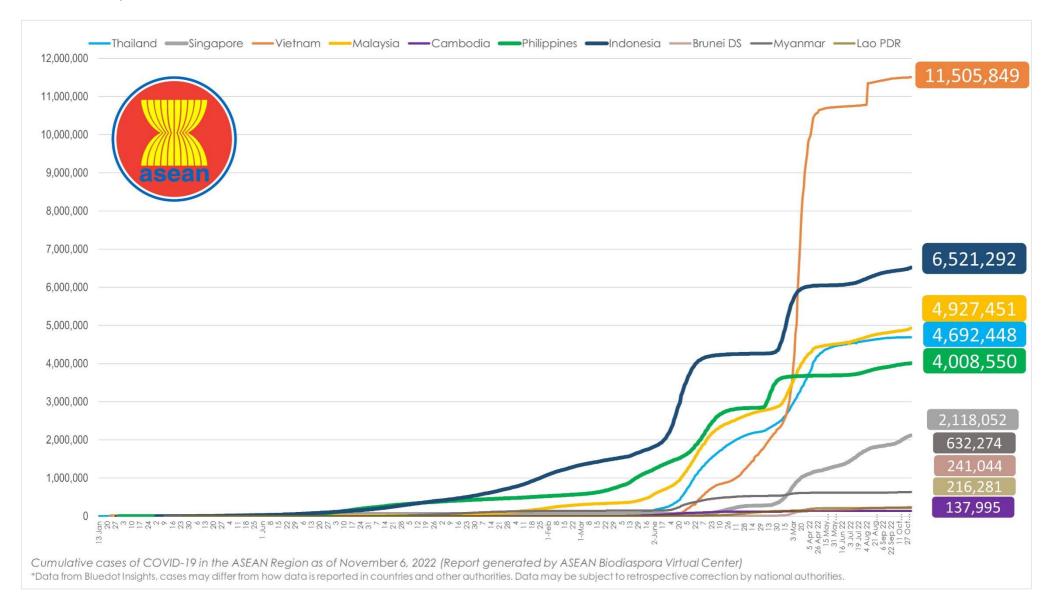
<sup>\*</sup>Includes cases from Hong Kong (SAR), Macau (SAR), and Taiwan (Province of China).

• 459,591,154 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	12,938,571	58	258,900	1	244,006	433,722,510	347,868,587	55,015,093
AMERICAS	183,574,642	12,091	2,894,337	31	1,207,194	828,137,368	727,446,651	487,460,093
EUROPE	240,543,886	9,698	2,003,642	91	2,038,997	566,890,345	538,461,319	367,324,601
MIDDLE EAST	22,534,055	1,638	238,389	7	213,216	144,279,738	129,621,742	59,470,941
TOTAL	459,591,154	23,485	5,395,268	130	3,703,412	1,973,029,961	1,743,398,299	969,270,728

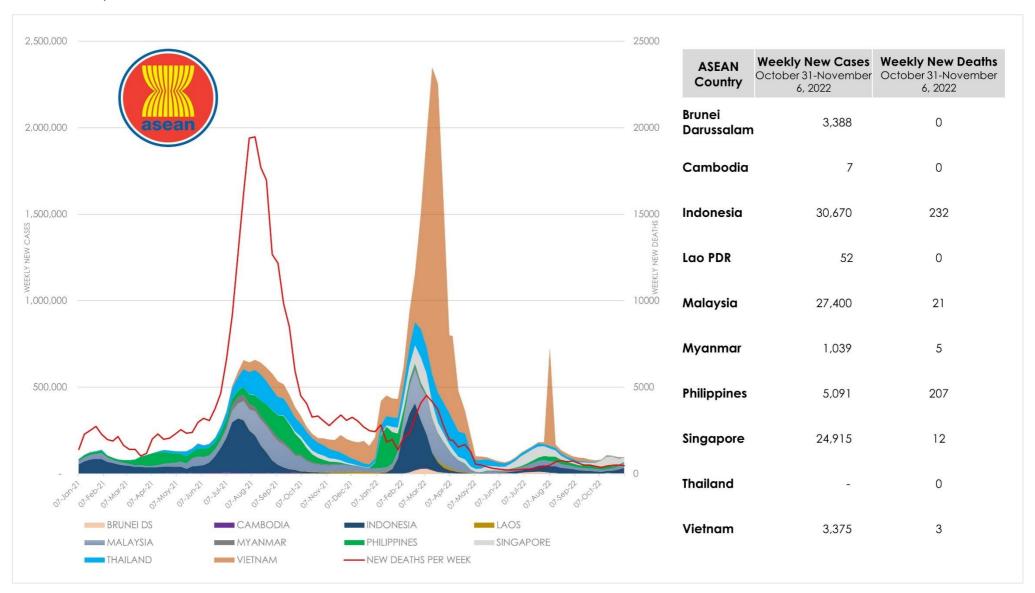
# **COVID-19 Epi curve among ASEAN Countries:**

From January 1, 2021 to November 6, 2022



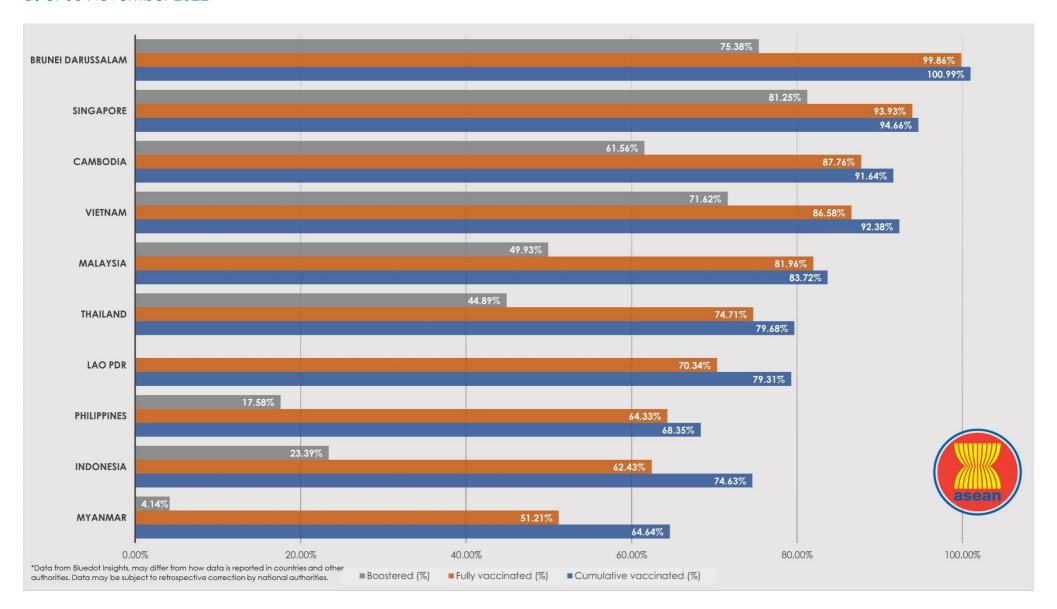
# **ASEAN Weekly COVID-19 New Cases and New Deaths**

From January 1, 2021 to November 6, 2022



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

as of 06 November 2022



# **ASEAN COVID-19 Outlook Assessment**

as of 04 November 2022

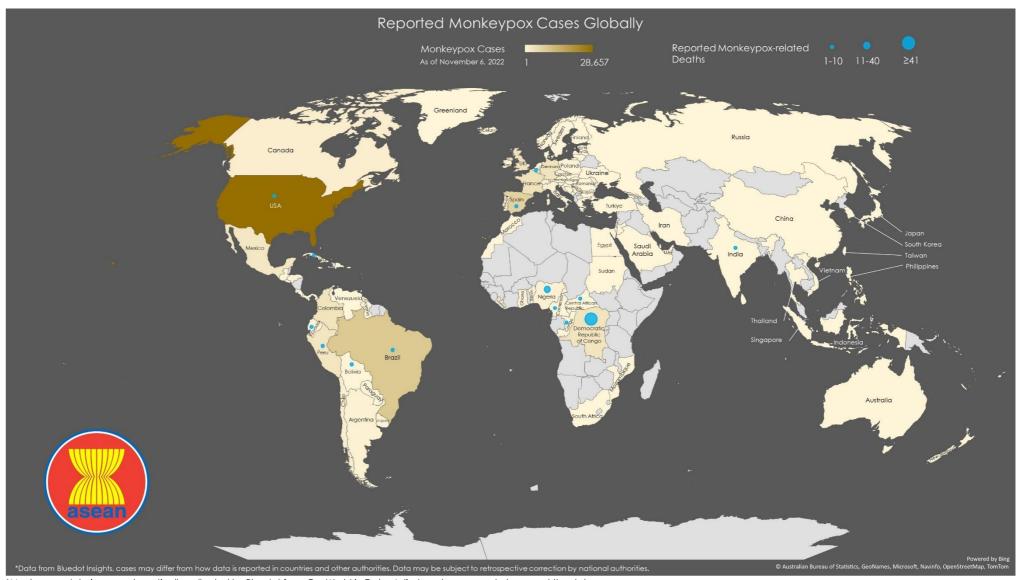
ASEAN MEMBER STATE	immunity to COVID-19; eit 19 or have been vaccinat	population has a level of her recovered from COVID- ed with at least one dose of 19 vaccine.	Case levels are generally low (a 7-day rolling average number of daily new cases that is <10 cases per 100,000, with each day's past-14-day test positivity is consistently <5%).	Government Policy on containment and health (strictness and comprehensiveness in COVID-19 related government policies)
	% of Total population fully vaccinated / boostered	Population vaccinated/ day (7-day average)	Daily cases/ 100,000	Containment and health index score - Oxford COVID-19 Government Response Tracker (OxCGRT)
Brunei Darussalam	≥90.0/75.2	Unknown	101.35	31.0/100
Cambodia	≥90.0/61.1	Unknown	0.01	31.5/100
Indonesia	65.5/23.3	Unknown	1.26	54.2/100
Lao PDR	77.3/ND	Unknown	0.10	61.6/100
Malaysia	84.5/49.4	0%/day	9.91	51.8/100
Myanmar	52.1/4.1	Unknown	0.27	69.1/100
Philippines	71.0/17.5	Unknown	1.04	55.4/100
Singapore	≥90.0/78.8	0.01%/day	93.27	58.9/100
Thailand	77.7/44.8	0.01%/day	0.52	31.5/100
Vietnam	≥90.0/71.1	Unknown	0.77	43.5/100

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

\*Removed column for positivity rate as all AMS have unknown report.

# **Monkeypox Cases Reported Globally**

as of November 6, 2022



<sup>\*</sup>Monkeypox data is now automatically collected by Bluedot from Our World in Data. Adjustments were made to correct the data.

## Monkeypox: Highlights and Situation Overview

- As of 07 November 2022 (2PM, GMT+8), worldwide, there were **82,993** confirmed cases, including **189** deaths. Globally, Case Fatality Rate (CFR) was **0.23%**.
- 40 confirmed cases in the ASEAN region, with CFR of 0%.
- **82,953 confirmed cases** of Monkeypox have been reported in other **5 regions** (other than ASEAN region):

## Monkeypox 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%

## Monkeypox cases in Asia-Pacific region

Country/Territory	Total Cases	New Cases	Deaths	Case Fatality Rate (CFR)
Australia	140	-	-	0.00%
Hong Kong (SAR)	1	-	-	0.00%
India	19	-	1	5.26%
Japan	7	-	-	0.00%
New Caledonia	1	-	-	0.00%
New Zealand	33	-	-	0.00%
People's Republic of China	9	-	-	0.00%
Republic of Korea	3	-	-	0.00%
Sri Lanka	1	1	-	0.00%
Asia-Pacific Total	214	-	1	0.47%

## Top 5 countries with most monkeypox cases globally

Country	Total Cases	New Cases	Deaths	Case Fatality Rate (CFR)
USA	28,657	38	9	0.03%
Brazil	9,273	13	11	0.12%
Spain	7,336	19	2	0.03%
France	4,097	3	-	0.00%
United Kingdom	3,701	-	-	0.00%



REGION	TOTAL CONFIRMED CASES SINCE JANUARY 1, 2022	NEW CASES SINCE THE PREVIOUS REPORT	TOTAL DEATHS	CASE FATALITY RATE
AFRICA	4,796	-	160	3.34%
AMERICAS	51,876	216	24	0.05%
ASEAN	40	-	-	0.00%
ASIA PACIFIC	214	1	1	0.47%
EUROPE	25,754	29	4	0.02%
MIDDLE EAST	313	-	-	0.00%
TOTAL	82,993	246	189	0.23%

## Global Update

- The World Health Organization (WHO) continues to have the highest level of worry on the multi-continental monkeypox outbreak that has recently caused significant concern among U.S. health officials. The virus outbreak has been classified by WHO as a global health emergency, the highest level of notice. The Emergency Committee of the UN agency has deemed it a "public health emergency of international concern (PHEIC)". Since at least July, when the WHO became aware that the virus was rapidly spreading, the warning has been at a high level. [Full Article]
- **Sri Lanka:** According to Daily Excelsior, the country's health ministry reported that a 20-yearold visitor from Dubai, United Arab Emirates (UAE), had been found to have the virus.<sup>3</sup> Nov. 1 saw the youth's return to Sri Lanka.<sup>3</sup> According to UNI, he is currently being treated at the Infectious Disease Hospital (IDH) on the outskirts of the country's capital, Colombo.<sup>3</sup> The ministry announced that it would intensify its efforts to find any potential infected cases while continuing to monitor the entrance of tourists and locals from other countries.<sup>3</sup>

## **Vaccine Update**

• Australia: The Australian Government has been collaborating closely with the states, territories, and other important partners to ensure a coordinated national response and is dedicated to safeguarding the safety of individuals who are at risk of monkeypox (MPX).<sup>2</sup> The MPX vaccination JYNNEOS' second shipment, consisting of around 40,000 vials, has arrived in Australia and will be distributed through the states and territories. There will be further doses delivered this year and throughout 2023.<sup>2</sup> One case was diagnosed during October thanks to the efforts of peak organizations Australian Federation of AIDS Organizations (AFAO), state-based LGBTQ+ health organization ACON in NSW, and Thorne Harbour Health in Victoria.<sup>2</sup> Nevertheless, vaccination is still crucial, especially as summer and World Pride events approach and bring a large number of foreign visitors to Australia.<sup>2</sup> New vaccines are being distributed at the same time as a new nationwide campaign that is being supported by the Australian government.<sup>2</sup> [Full Report]

## Research Update

• A recent study on Transmission dynamics of monkeypox in the United Kingdom: contact tracing study suggests that a substantial proportion of monkeypox cases in the ongoing global outbreak are transmitted 1 to 4 days before symptoms appear.<sup>12</sup> Sexual activity between men who have sex with men (MSM) has driven the outbreak, and the study



authors say these new findings have important implications for infection control. <sup>12</sup> The study is based on the contact tracing and surveillance findings of 2,746 UK residents who tested positive for the monkeypox virus between May 6 and Aug 1, 2022. <sup>12</sup> 95% were MSM, and the average age was 37.8 years old. <sup>12</sup> The mean incubation period (time from exposure to onset of symptoms) was estimated to be 7.6 days. <sup>12</sup> The median serial interval was 0.8 to 1.6 days shorter than the median incubation period, which means transmission occurred before any case patient was aware of symptoms. <sup>12</sup> In addition, 10 out of 13 linked patients had documented pre-symptomatic transmission. <sup>12</sup> Overall, short serial intervals were more common than short incubation periods for case patients. <sup>12</sup> The authors noted that assuming statistical independence between the serial interval and incubation period, it was found that 53% of transmission occurs in the pre-symptomatic phase, however, since serial intervals depend on the incubation period this finding is an approximation of the proportion of infections due to pre-symptomatic transmission. <sup>12</sup> The authors added that an isolation period of 16 to 23 days would be required to detect 95% of people with a potential infection. <sup>12</sup> [Full Text]

The study Electron microscopy images of monkeypox virus infection in 24-year-old man, demonstrates the value of the electron microscope in clarifying the degree of monkeypox infection.<sup>18</sup> Our clinic was visited by a 24-year-old male who complained of excruciating anal pain and a pustular rash across his body, arms, penis, and fingers. 18 The patient said that 3 days after engaging in condom-free penetrative and receptive anal sex with a male, he first experienced pain, which was followed by fever, chills, and inquinal lymphadenopathy.<sup>18</sup> About 8 days after the sexual activity, or 2 days before he visited our clinic, skin lesions started to develop. 18 The patient has no prior medical history and was previously healthy. 18 Anorectoscopy revealed ulcerating lesions close to the anal canal's pectinate border. 18 By using PCR, anorectal and oropharyngeal swabs were found to contain monkeypox virus.<sup>18</sup> Anal lesions' tissue samples underwent histopathological investigation, which revealed pronounced inflammation and localized disruption of the crypt epithelium, notably loss of columnar cell form. 18 Herpes simplex virus types 1 and 2, cytomegalovirus, and nucleic acid amplification tests for Chlamydia trachomatis and Neisseria gonorrhoea were all negative. 18 Thin-section electron microscopy (EM) was used to examine paraffin-embedded biopsy samples in order to determine whether or not cells were infected with the monkeypox virus and whether those cells might spread the infection.<sup>18</sup> Using EM, it was possible to identify mature and immature virus particles that were organized in particular cytoplasmic regions of colonic crypt epithelial cells and interstitial cells, indicating viral replication.<sup>18</sup> [Full Text]

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