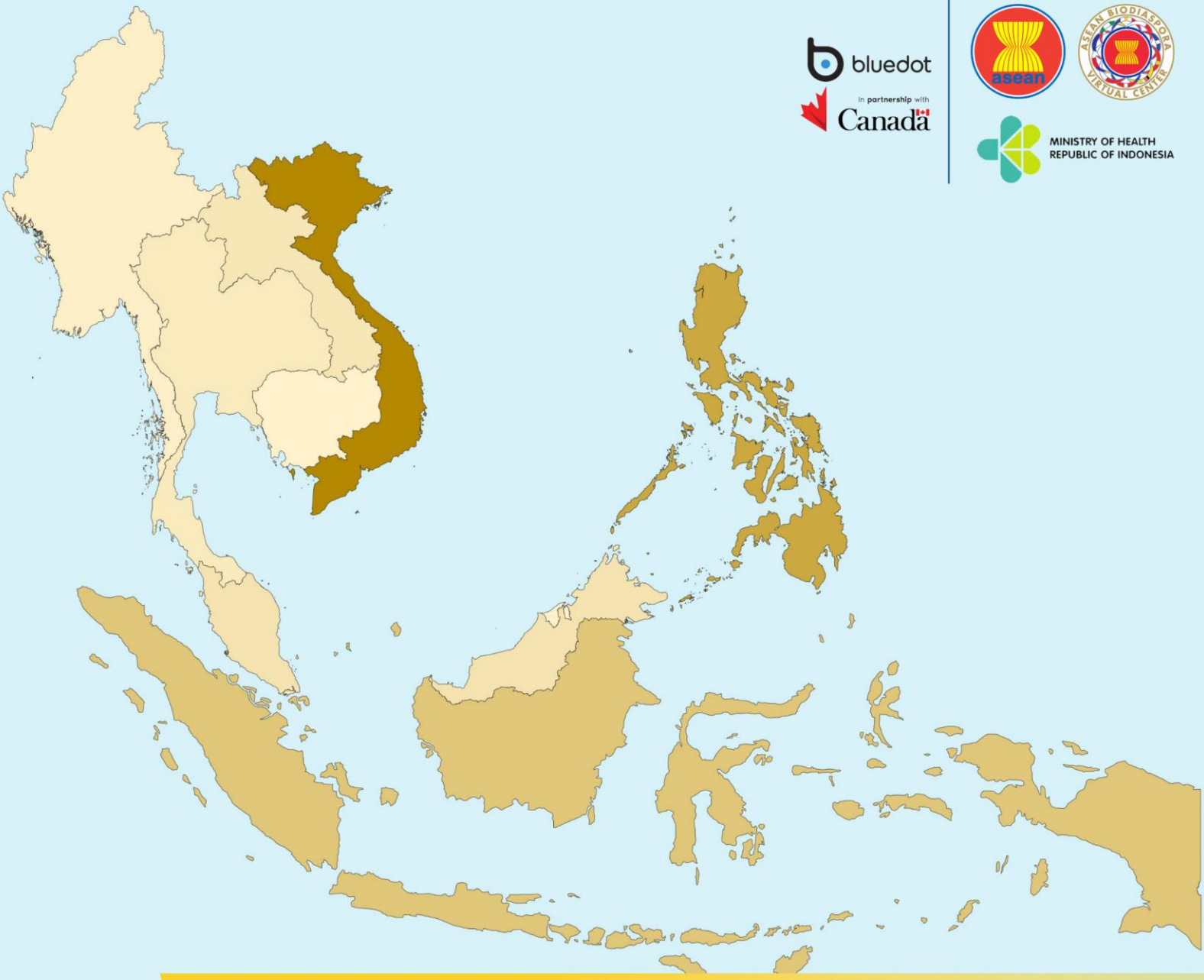

COVID-19, Mpox, and Travel Advisories

Situational Report in the ASEAN Region

ASEAN BioDiaspora Virtual Center (ABVC)

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ASSOCIATION OF SOUTHEAST ASIAN NATIONS

ASEAN BIODIASPORA VIRTUAL CENTER

MINISTRY OF HEALTH
REPUBLIC OF INDONESIA

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World Health Organization

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COVID-19: Highlights and Situation Overview

Global Update

- **Worldwide**, there have been over 686 million cases and over 6 million deaths attributed to COVID-19.
- **World Health Organization's (WHO)** Director-General Tedros Adhanom Ghebreyesus said during the media briefing on April 26 (Wednesday) that the WHO is encouraged by the sustained drop in deaths, which have dropped 95% since the beginning of the year.[2] However, he warned that some countries are seeing rises, and over the past 4 weeks, about 14,000 people died from their infections.[2] He also raised concerns about the large numbers of people with long COVID, estimated to affect 1 in 10 infected people, pointing to a substantial need for longer-term care.[2] He added that though officials look forward to the end of the public health emergency phase, it's clear that the virus is here to stay, and the emergence of XBB.1.16 is a reminder that the virus is still changing and is capable of causing illness and deaths.2 [Full transcript]
- **Taiwan** government said on April 27 (Thursday) that it will downgrade its classification of COVID-19 starting May 1 to a less severe category of communicable diseases as the local COVID-19 situation has remained stable and with infections remaining low.[3] COVID-19 will be designated as a Category 4 communicable disease instead of Category 5.[3] Other infectious diseases covered by Category 5 include yellow fever and the Ebola virus.[3] The Central Epidemic Command Center, which was established on Jan. 20, 2020, will also be dissolved on May 1 (Monday).[3] [Full article]

Research Update (Published and peer-reviewed studies)

- The study on the ***Changes in Brain Activation Pattern During Working Memory Tasks in People With Post-COVID Conditions and Persistent Neuropsychiatric Symptoms*** led by researchers from the University of Maryland School of Medicine (UMSOM) found that long-COVID patients with neuropsychiatric symptoms such as brain fog showed abnormal brain activity on magnetic resonance imaging (MRI) while completing memory tests, with a shift from activity in brain areas normally used for memory to other brain regions.[4] Researchers conducted functional MRI on 29 participants who had persistent symptoms after a COVID-19 diagnosis at least 6 weeks earlier and 21 never-infected matched controls.[4] Among the COVID-19 patients, the average interval between diagnosis and enrollment was 7 months.[4] Long-COVID participants reported a high rate of problems with concentration (92.9%) and memory (78.6%), confusion (64.3%), headaches (57.1%), visual disturbances (50%), gait disturbances (50%), burning sensations in the extremities (42.9%), and incoordination (39.3%).[4] Loss of taste or smell persisted in 28.6% of long-COVID-19 patients. This group also had a high rate of new-onset fatigue (85.7%), depression or anxiety (67.9%), impaired sleep (64.3%), muscle pain (60.7%), lightheadedness (46.4%), and urinary issues (27.6%).[4] While long-COVID patients' cognitive test scores were similar to those of never-infected participants, those with persistently compromised memory and concentration and lingering fatigue had greater brain activation on MRI while completing working-memory tests.[4] Long-COVID patients also had lower scores on tests for dexterity and motor endurance than controls and reported more anger, sadness, stress, depression, anxiety, fatigue, and pain and lower life satisfaction, meaning, and purpose.[4] Those in the long-COVID group who had more brain activity changes were more likely to have lower test scores.[4] The authors also emphasized that the findings don't prove that SARS-CoV-2 caused brain changes but rather only an association.[4] [Full text]

- Monovalent mRNA COVID-19 vaccination has been shown to prevent hospitalization and critical outcomes, including IMV and death, during SARS-CoV-2 Alpha, Delta, and early Omicron variant periods.[6] Data on the durability of protection provided by monovalent mRNA COVID-19 vaccination against critical outcomes of COVID-19 are limited beyond the Omicron BA.1 lineage period (December 26, 2021–March 26, 2022).[6] This case-control study, ***Effectiveness of Monovalent mRNA COVID-19 Vaccination in Preventing COVID-19–Associated Invasive Mechanical Ventilation and Death Among Immunocompetent Adults During the Omicron Variant Period — IVY Network, 19 U.S. States, February 1, 2022–January 31, 2023***, evaluated the effectiveness of 2–4 monovalent mRNA COVID-19 vaccine doses against COVID-19–associated invasive mechanical ventilation (IMV) and in-hospital death among immunocompetent adults aged ≥18 years.[6] Data from the Investigating Respiratory Viruses in the Acutely Ill (IVY) Network were used to conduct this case-control analysis.[6] During February 1, 2022–January 31, 2023, adults aged ≥18 years admitted to 24 hospitals in 19 U.S. states who met a COVID-19–like illness case definition and received SARS-CoV-2 testing were enrolled.[6] Control patients were those who received negative SARS-CoV-2 and influenza test results by RT-PCR within 10 days of illness onset and within 3 days of hospital admission.[6] Patients who received positive influenza test results were excluded from the analysis.[6] A total of 6,354 immunocompetent control patients and COVID-19 case-patients with IMV or in-hospital death were enrolled in the IVY Network.[6] After exclusion of 1,933 patients, 4,421 (70%) were included in the analysis (362 case-patients and 4,059 control patients).[6] Vaccine effectiveness (VE) against IMV and in-hospital death was 62% among adults aged ≥18 years and 69% among those aged ≥65 years.[6] When stratified by time since last dose, VE was 76% at 7–179 days, 54% at 180–364 days, and 56% at ≥365 days.[6] Monovalent mRNA COVID-19 vaccination provided substantial, durable protection against IMV and in-hospital death among adults during the Omicron variant period.[6] [Full text]

- This study, ***Post-intensive care syndrome and pulmonary fibrosis in patients surviving ARDS-pneumonia of COVID-19 and non-COVID-19 etiologies***, examined the occurrence of lung fibrotic changes on Chest computed tomography (CT) imaging and functional outcome following pneumonia-related acute respiratory distress syndrome (ARDS), whether COVID19 related or non-COVID19 related.[7] A retrospective analysis of the medical records of adult patients surviving acute respiratory distress syndrome (ARDS) and receiving follow-up care in the ICU Recovery Clinic at the University of Kentucky, was performed in adult patients surviving ARDS due to COVID-19 and non-COVID etiologies.[7] Ninety-four patients with mean age 53 ± 13 and 51% male were included (n= 64 COVID-19 and n= 30 non-COVID groups).[7] There were no differences for age, sex, hospital length of stay, ICU length of stay, mechanical ventilation duration, or sequential organ failure assessment (SOFA) scores between the two groups.[7] Fibrotic changes visualized on CT imaging occurred in a higher proportion of COVID-19 survivors (70%) compared to the non-COVID group (43%, $p< 0.001$).[7] Across both groups, patients with fibrotic changes (n= 58) were older, had a lower BMI, longer hospital and ICU LOS, lower mean RASS scores, longer total duration of supplemental oxygen.[7] While not statistically different, patients with fibrotic changes did have reduced respiratory function, worse performance on the six-minute walk test, and had high occurrences of anxiety, depression, emotional distress, and mild cognitive impairment regardless of initial presenting diagnosis.[7] Of clinical importance, pulmonary fibrotic changes on chest CT occurred in a higher proportion in COVID-ARDS group; however, no functional differences were measured in spirometry or physical assessments at ICU follow-up.[7] [Full text]

- SARS-CoV-2 RNA has been detected in indoor air samples in various settings.[8] Well-defined methods to monitor indoor air remain essential to inform on the risks of acquisition in the community and occupational environments and to evaluate

mitigation methods.[8] The quantity and infectivity of viral particles collected from air is strongly influenced by the samples, the environmental context, the time of sampling and sample storage before cell culture.[8] This study, ***Detection of viable SARS-CoV-2 in retrospective analysis of aerosol samples collected from hospital rooms of patients with COVID-19***, assessed the possibility of isolating infectious SARS-CoV-2 virus particles in a retrospective analysis of aerosol samples.[8] We collected air samples in individual airborne isolation hospital rooms with negative pressure and >12 air changes/hour occupied by patients with acute COVID-19 in fall 2020 in Quebec, Canada when the Alpha variant was circulating but not yet detected in Quebec and before vaccines were available.[8] Thirty samples were collected in 10 different rooms using two types of samplers selected based on previous reports, namely 37mm closed-face cassettes with 0.8mm polycarbonate filters (SKC, Eighty Four) with a flow rate of 10L air/min or a condensation growth tube (CGT) air sampler (Series 110A Liquid Spot Sampler, Aerosol Devices) with a nominal flow rate of 1.5L air/min, located at 2-3m from the patient's bed with sampling duration of 4.75-20h to cover sporadic events generating viral aerosols.[8] The samples had been stored 14 months before carrying out the cell culture experiments.[8] The cell culture design clearly differentiated between replicating and non-replicating virus.[8] The only sample from which virus capable of replicating in cell culture was collected using the Spot Sampler.[8] This is consistent with previous reports suggesting that CGT samplers allow collection of airborne SARS-CoV-2 and at least partially preserve virion infectivity.[8] Patient's (45-year-old female known only for diabetes) characteristics that may have influenced aerosolization of SARS-CoV-2 were no immunization against COVID-19, symptomatic for 7 days including severe cough, and requirement of oxygen administration by nasal canula (2L/min) on the day of air sampling.[8] No aerosol generating procedure occurred during air sampling.[8] A nasopharyngeal swab collected 48h prior to the air sampling was positive for SARS-CoV-2.[8] In conclusion, there is evidence for the presence of replicating SARS-CoV-2 virions in bioaerosols.[8] [Full text]

Travel Update

- **Japan:** Passengers arriving in Japan will no longer be required to submit proof of vaccination or negative test results starting April 29 (Saturday).[5] Currently, all incoming passengers — including Japanese nationals and foreign residents — are required to present proof that they have received at least three COVID-19 vaccine shots or have tested negative for the virus within 72 hours before departure.[5] Arrivals who have COVID-like symptoms may reportedly be asked to undergo voluntary testing at some airports.[5] [Full article]

ASEAN Travel Advisories (new update/s)

as of 28 April 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	March 6, 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 an RT-PCR test upon arrival	No	No	Traveler is required to download and register at the SatuSehat app (Android/ iOS) 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	April 3, 2023	Yes	Yes – fully vaccinated* certificate for 12 years old and above.	Passengers are subject to medical screening and could be subject to a test upon arrival.	Foreign travelers who are not fully vaccinated are not allowed to enter or transit Myanmar.	No	Required to obtain Myanmar Insurance	Passengers must present a Health Declaration Form upon arrival.
Philippines	March 30, 2022	Yes	Yes – fully vaccinated* with booster dose certificate for 15 years old and above.	No	Yes – COVID-19 rapid antigen test upon arrival.	No	No	Traveler is required to download and register an E-arrival card at most 3 days before departure for those without a 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: IATA Travel Centre
- *Fully vaccinated – at least 14 or 15 days from 2nd dose for a two-dose vaccine or 14 or 15 days from a single-dose vaccine upon arrival.

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Cases and Deaths as of 28 April 2023

- As of 28 April 2023 (1 PM, GMT+7), worldwide, there were **686,867,702** confirmed cases, including **6,862,543** deaths. Globally, the Case Fatality Rate (CFR) was **1.0%.**
- **35,830,439 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 BOOSTED	FULLY VACCINATED/ 100
ASEAN REGION	**Brunei Darussalam**	10 Mar 20	18-Apr-23	285,740	-	225	-	64,053	450,404	445,929	338,987	99.3
	Cambodia	27 Jan 20	27-Apr-23	138,732	-	3,056	-	841	15,244,858	14,609,937	10,433,215	87.1
	Indonesia	02 Mar 20	28-Apr-23	6,769,280	275	161,224	3	2,490	203,657,535	172,693,321	67,952,274	62.7
	Lao PDR	24 Mar 20	27-Apr-23	218,071	-	758	-	3,041	5,888,649	5,222,417		69.4
	Malaysia	25 Jan 20	22-Apr-23	5,066,877	-	37,011	-	15,788	28,125,245	27,536,657	17,056,957	81.1
	Myanmar	23 Mar 20	27-Apr-23	634,599	-	19,490	-	1,173	34,777,314	27,545,329	2,227,351	50.8
	Philippines	30 Jan 20	27-Apr-23	4,090,996	-	66,444	-	3,771	78,369,243	73,937,435	21,341,197	64.0
	Singapore	23 Jan 20	21-Apr-23	2,340,779	-	1,727	-	39,049	5,161,990	5,120,768	4,440,289	90.8
	Thailand	13 Jan 20	24-Apr-23	4,730,490	-	33,947	-	6,791	57,005,497	53,486,086	32,143,431	74.6
	Vietnam	23 Jan 20	27-Apr-23	11,554,875	-	43,188	-	11,950	90,450,881	85,848,363	57,452,750	87.4
	ASEAN COUNTRIES			**35,830,439**	**275**	**367,070**	**3**	**148,946**	**519,131,616**	**466,446,242**	**213,386,451**	

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

REGION	TOTAL CONFIRMED CASES	NEW CASES	TOTAL DEATHS	NEW DEATHS
ASIA	194,739,908	33,356	1,204,194	69
AFRICA	12,818,424	37	258,717	
AMERICAS	194,707,893	5,909	2,981,758	83
EUROPE	248,771,038	16,862	2,050,804	117
TOTAL	**651,037,263**	**56,164**	**6,495,473**	**269**

**Data Reference: Worldometer

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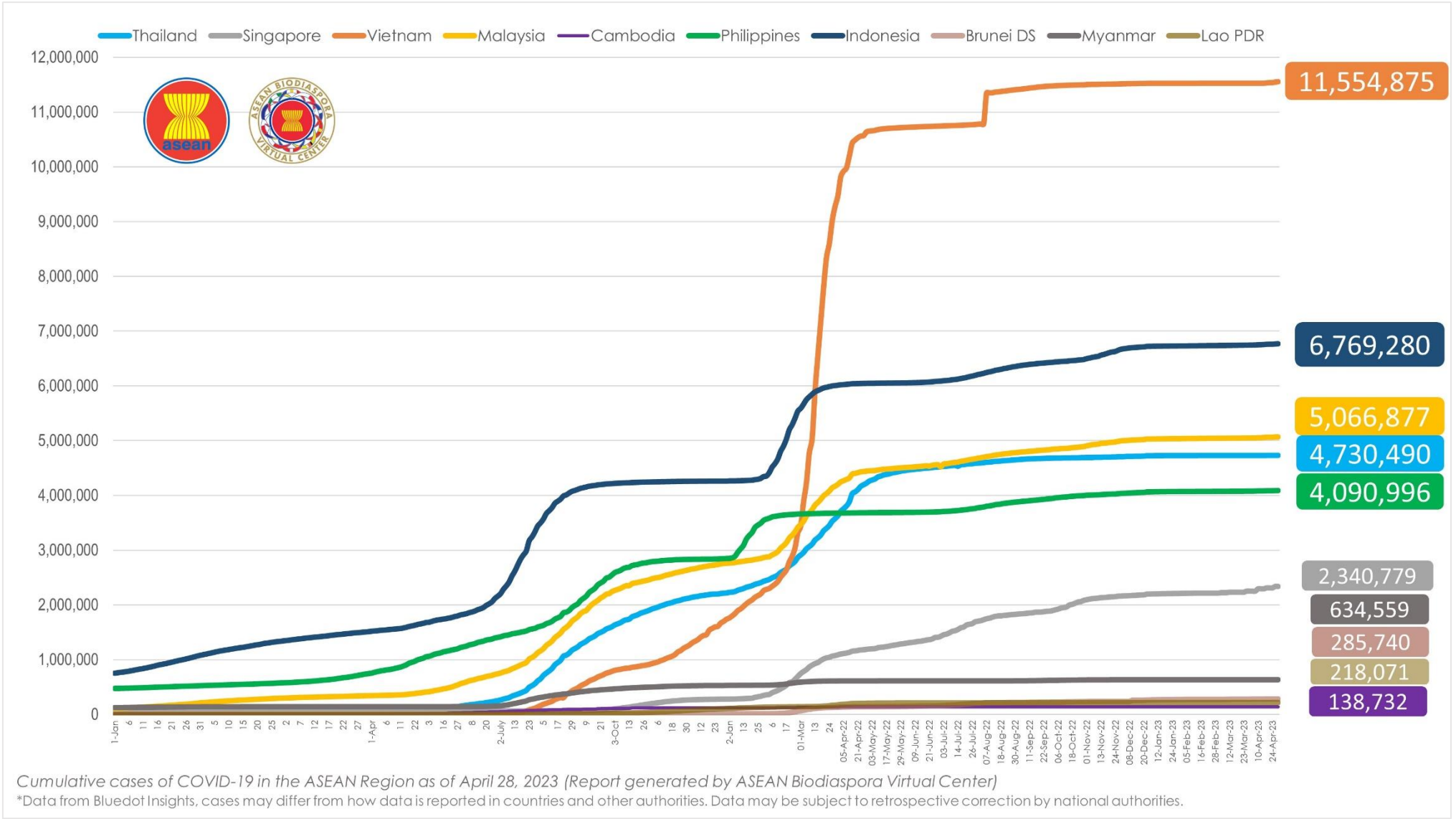
COVID-19 Epi curve among ASEAN Countries

From January 1, 2022 to April 28, 2023



Cumulative cases of COVID-19 in the ASEAN Region as of April 28, 2023 (Report generated by ASEAN Biodiaspora Virtual Center)

*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.

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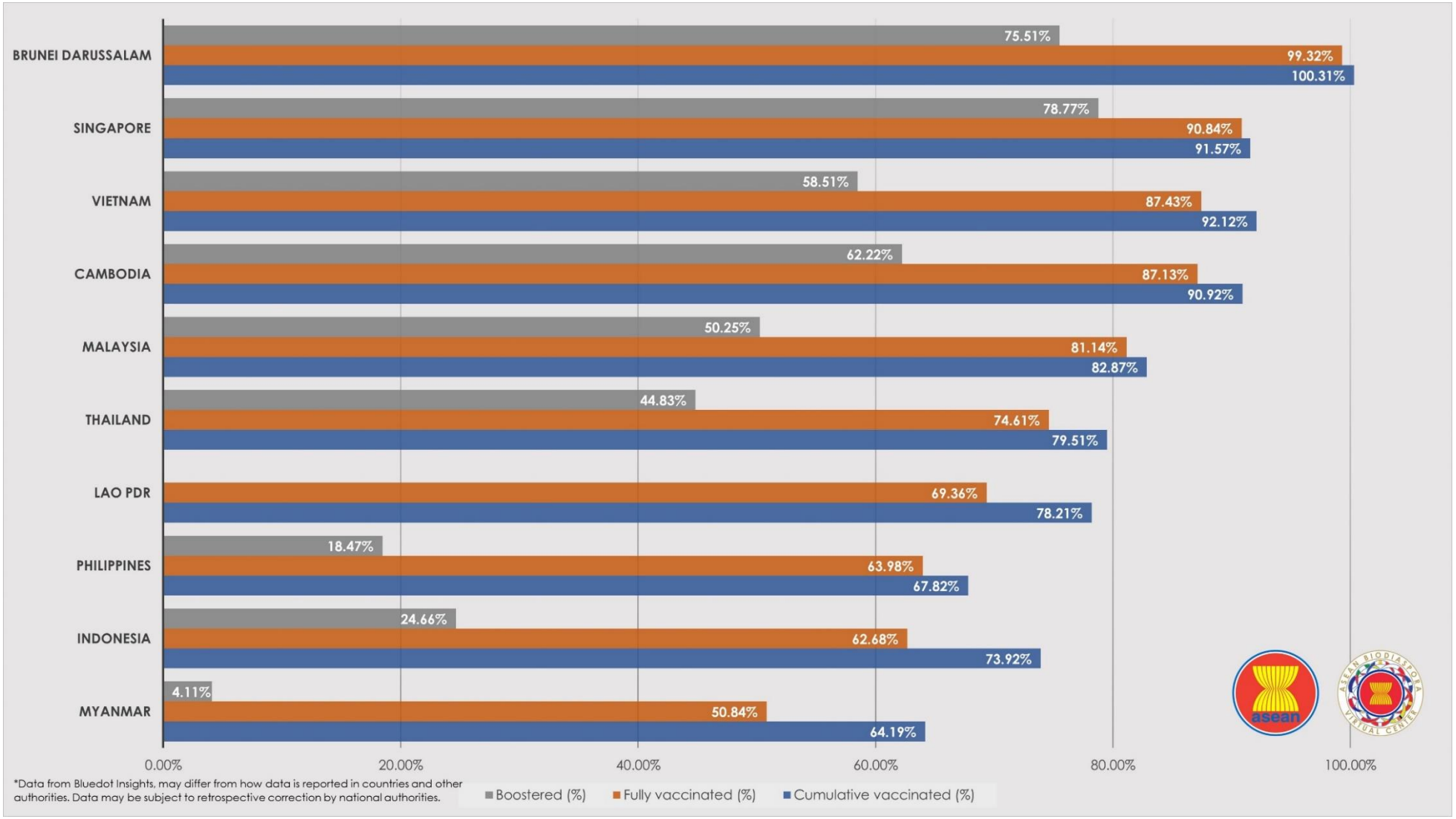
COVID-19 Vaccination Status in ASEAN

as of 09 March 2023



*Last update in COVID-19 vaccination status in ASEAN was on March 9, 2023.

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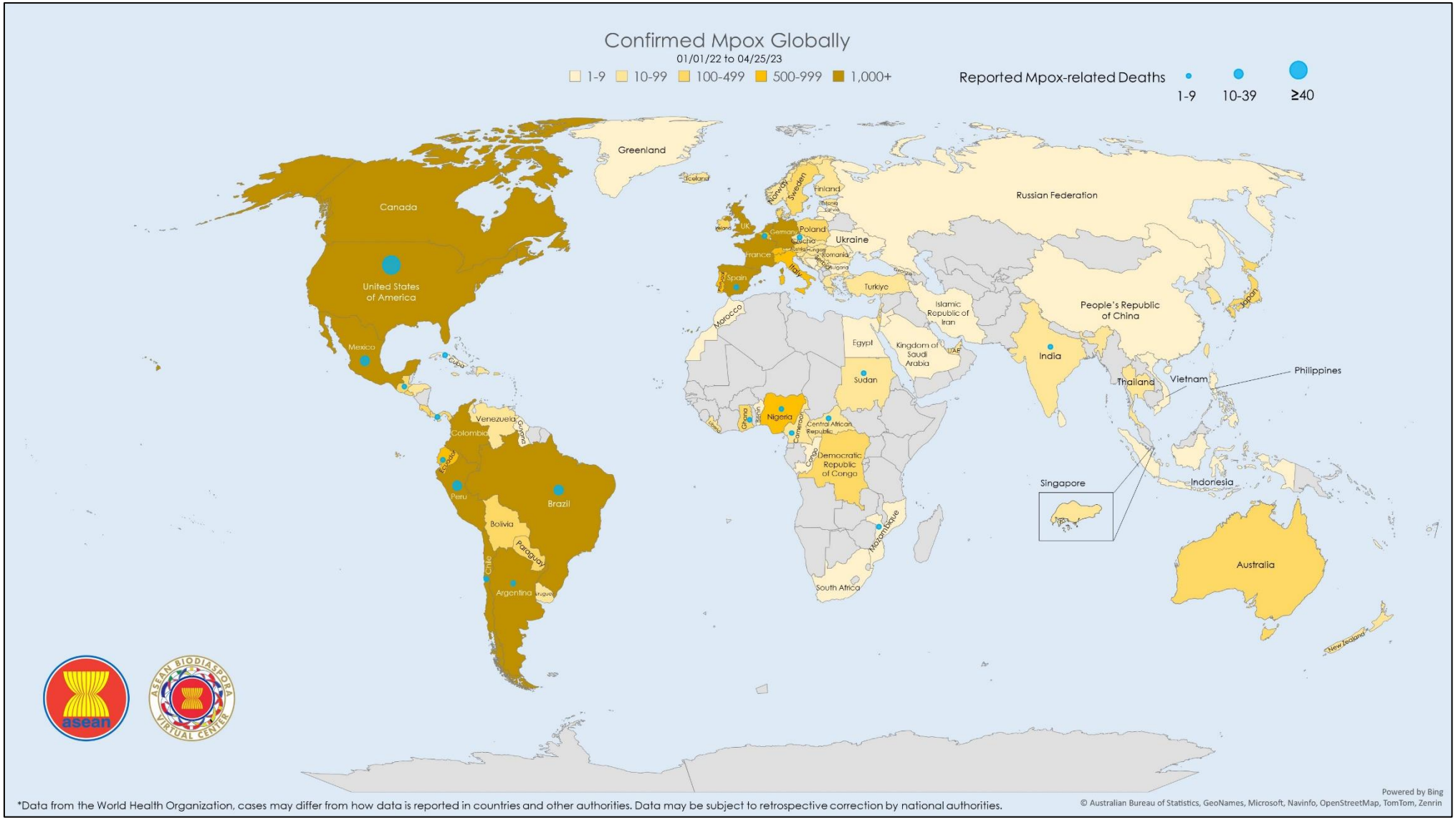
Mpox (Monkeypox) Cases Reported Globally

as of April 25, 2023



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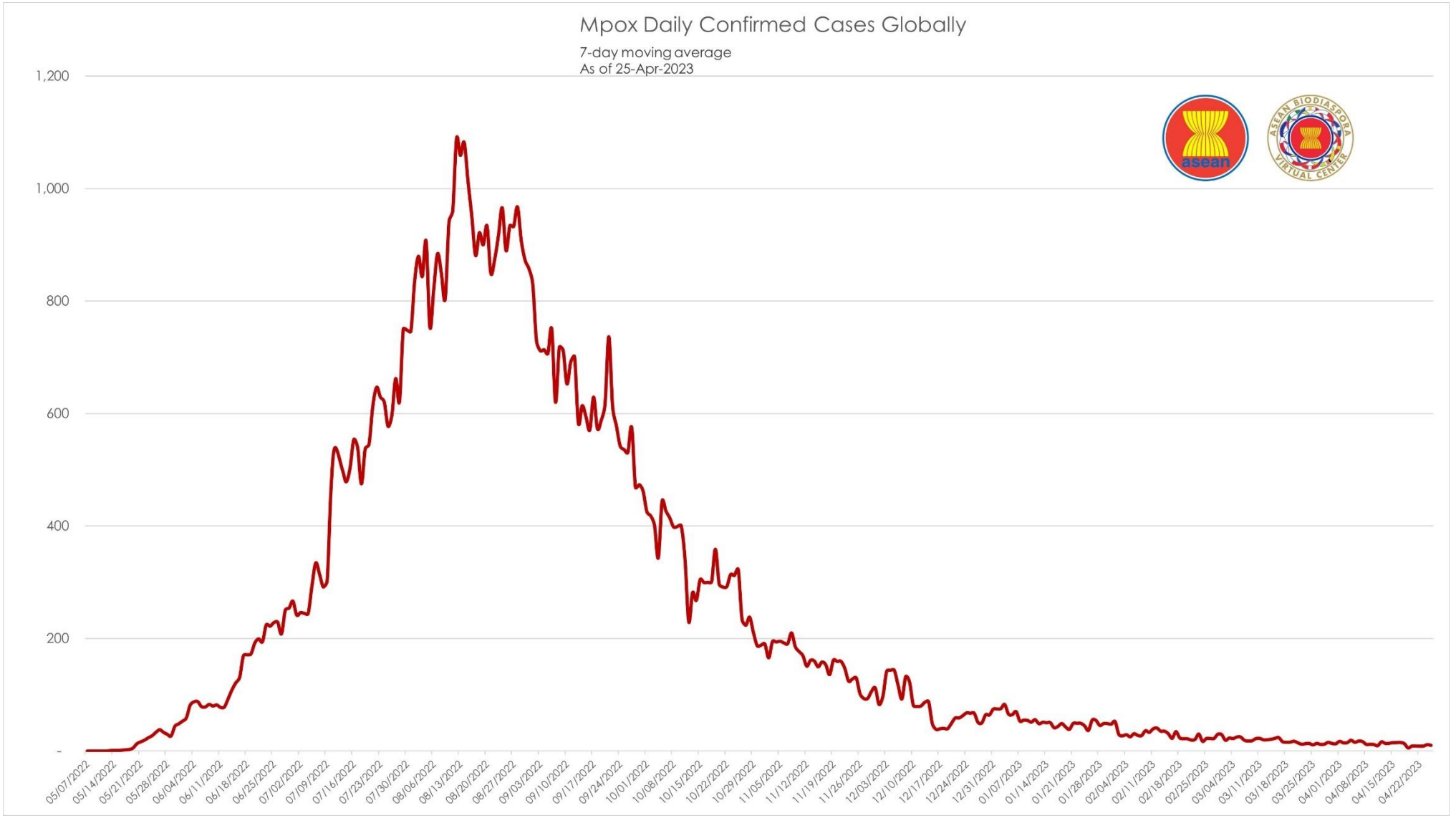
Mpox Daily Trend Globally

as of April 25, 2023



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Mpox: Highlights and Situation Overview

- As of 25 April 2023 (1PM, GMT+7), worldwide, there were **87,112** confirmed cases, including **130** deaths. Globally, Case Fatality Rate (CFR) was **0.15%.**
- **49 confirmed cases** in the ASEAN region, with CFR of **0%.**
- **87,063 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	23	-	-	0.00%
Thailand	19	-	-	0.00%
Vietnam	2	-	-	0.00%
ASEAN Total	**49**	**-**	**-**	**0.00%**

Mpox cases in Asia-Pacific region

Country/Territory	Total Cases	New Cases	Deaths	Case Fatality Rate (CFR)
Australia	144	-	-	0.00%
India	22	-	1	4.55%
Japan	120	-	-	0.00%
New Caledonia	1	-	-	0.00%
New Zealand	41	-	-	0.00%
People's Republic of China*	40	-	-	0.00%
Republic of Korea	30	-	-	0.00%
Sri Lanka	2	-	-	0.00%
Asia-Pacific Total	**400**	**-**	**1**	**0.25%**

*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	30,140	12	44	0.15%
Brazil	10,904	4	16	0.15%
Spain	7,549	-	3	0.04%
France	4,144	-	-	0.00%
Colombia	4,090	-	-	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	1,511	14	19	1.26%
AMERICAS	59,197	24	104	0.18%
ASEAN	49	-	-	0.00%
ASIA PACIFIC	400	-	1	0.30%
EUROPE	25,610	-	6	0.02%
MIDDLE EAST	321	-	-	0.00%
TOTAL	**87,112**	**38**	**130**	**0.15%**

Research Update (Published and peer-reviewed studies)

- During the 2022 multinational Monkeypox (mpox) outbreak, tecovirimat, an antiviral medication approved for the treatment of smallpox, was used as an investigational treatment for severe mpox.[1] This report, ***Posttreatment Lesions After Tecovirimat Treatment for Mpox — New York City, August– September 2022***, describes a series of patients in New York City (NYC) with mpox who also developed new lesions after completing tecovirimat treatment, suggesting that posttreatment lesions might occur more commonly than previously reported.[1] A case of posttreatment mpox lesions was defined as the occurrence of new skin or mucosal lesions with probable or confirmed mpox, emerging ≤30 days after completing the recommended 14-day tecovirimat treatment course, after improvement or resolution of initial mpox lesions.[1] During August–September 2022, health care providers voluntarily reported 10 such cases to the NYC Department of Health and Mental Hygiene (DOHMH).[1] Providers were asked to complete a survey detailing patient demographic and clinical characteristics and illness course. Descriptive analyses were performed on the nine surveys submitted.[1] The median patient age was 33 years (range = 23–46 years); eight were men, and one was a transgender woman.[1] Among eight patients with race reported, four were Black or African American, and four were White.[1] Five had HIV, including four who were taking antiretrovirals at the time of mpox diagnosis (CD4 count >350 cells/mm3 and viral load < 200 copies/mL), and one who was not taking antiretrovirals (CD4 count< 200 cells/mm3 and viral load unknown).[1] No patient received JYNNEOS vaccine before experiencing mpox.[1] Six patients were tested for sexually transmitted infections (STIs) and one had a positive gonorrhea test result and was treated. New lesions appeared a median of 13 days after completion of tecovirimat treatment (range = 2–30 days).[1] Among six patients for whom orthopoxvirus testing of posttreatment lesions was conducted, one had a positive result.[1] Two patients received repeat STI testing; one had a positive syphilis test result.[1] The immunocompromised patient with untreated HIV received both the positive posttreatment orthopoxvirus and the positive syphilis test results.[1] Further research is needed to understand the etiology of new lesions in patients with mpox after completion of tecovirimat therapy.[1] One possibility is that the recurrent viral load might be too low for test detection.[1] The proportions of patients not tested for STIs, at initial mpox diagnosis and at the assessment of posttreatment lesions, represent missed opportunities to identify potential coinfections or alternative diagnoses.[1] [Full text]

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