



COVID-19 and Mpox

Situational Report in the ASEAN Region

—— ASEAN BioDiaspora Virtual Center (ABVC)



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COVID-19: Highlights and Situation Overview

Global Update

- **Worldwide**, over 687 million cases and over 6 million deaths have been attributed to COVID-19.
- The **World Health Organization (WHO)** reported in its latest weekly update that COVID-19 cases and deaths continued to drop over the past 4 weeks, but levels are rising in three of the six world regions. In the Southeast Asia region, hot spots include India, Indonesia, and Thailand. In the Middle East, levels are on the rise in Iran, Qatar, and Saudi Arabia. And in the Western Pacific, numbers are up in Singapore, Japan, and South Korea. The proportion of the XBB.1.16 Omicron subvariant rose from 2% to 5.7% since the last report, with XBB, XBB.1.9.1, and XBB.1.9.2 as the only other subvariants showing increases. [[Full report](#)]
- The **Centers for Disease Control and Prevention (CDC)** reported in its latest weekly update that the proportion of XBB.1.16 subvariants rose from 8.4% to 12.5% over the past week. XBB.1.9.1 and XBB.1.9.2 proportions also rose. Over the past several weeks, US COVID-19 cases, hospitalizations, and deaths have remained on a downward trend. [[Full report](#)]
- **The Independent Panel for Pandemic Preparedness and Response** has been tracking capacities globally and released a roadmap for better protecting the world against pandemic threats. The panel said applying lessons learned during COVID-19 offers a once-in-a-lifetime opportunity to get pandemic preparedness right, adding that regional groups and large institutions are in an increasingly strong position to strengthen capacities. [[Full report](#)]

Research Update (Published and peer-reviewed studies)

- Beginning in 2020, the historic response to the COVID-19 pandemic necessitated rapid improvements in processing, reporting, and visualizing of timely and granular public health surveillance data on an unprecedented scale.⁴ This report, **COVID-19 Surveillance After Expiration of the Public Health Emergency Declaration – United States, May 11, 2023**, describes CDC activities during the transition of COVID-19 from emergency to routine public health program. CDC has established the Coronavirus and Other Respiratory Viruses Division, which is committed to working on the prevention of COVID-19 within a sustainable and integrated surveillance strategy that monitors other circulating respiratory viruses and prevention measures, including vaccination, to provide timely and comprehensive situational awareness.⁴ In the past year, CDC has developed several public dashboards displaying data on hospitalizations or ED visits for diagnosed or laboratory-confirmed COVID-19, influenza, and respiratory syncytial virus.⁴ Changes to the national COVID-19 monitoring strategy and COVID Data Tracker capitalize on marked improvements in multiple surveillance systems.⁴ Weekly COVID-19 hospital admission levels and the percentage of all COVID-19–associated deaths will be primary surveillance indicators.⁴ Emergency department visits and percentage of positive SARS-CoV-2 laboratory test results will help detect early changes in trends.⁴ Genomic surveillance will continue to help identify and monitor SARS-CoV-2 variants.⁴ Monitoring the impact of COVID-19 and the effectiveness of prevention and control strategies continues to be a public health priority during the transition from the emergency phase of the COVID-19 response to routine public health practice.⁴ Approximately 1,000 COVID-19–associated weekly deaths were reported in early April 2023; COVID-19–associated deaths are largely preventable through receipt of updated COVID-19 vaccine and timely administration of therapeutics.⁴ [[Full text](#)]



- COVID-19 monitoring will remain a public health priority after the U.S. public health emergency declaration expires on May 11, 2023.⁵ Assessment of available surveillance indicators found that COVID-19 hospital admission levels were concordant with COVID-19 Community Levels.⁵ COVID-19–associated hospital admission rates lagged 1 day behind case rates and 4 days behind percentages of COVID-19 emergency department visits and positive SARS-CoV-2 test results.⁵ National Vital Statistics System trends in the percentage of COVID-19 deaths strongly correlated with and were 13 days timelier, than aggregate death count data.⁵ Rates of COVID-19–associated hospital admission and the percentages of positive test results, COVID-19 emergency department visits, and COVID-19 deaths are suitable and timely indicators of trends in COVID-19 activity and severity.⁵ This evaluation of national COVID-19 surveillance data sources and indicators, ***Correlations and Timeliness of COVID-19 Surveillance Data Sources and Indicators – United States, October 1, 2020–March 22, 2023***, was performed in anticipation of the transition from the COVID-19 pandemic response to routine public health activities that require sustainable sources of surveillance data and reliable indicators after the end of the public health emergency declaration on May 11, 2023.⁵ The evaluation determined that hospital admission rates are a suitable and timely primary indicator for monitoring COVID-19 trends. Using COVID-19 mortality data from NVSS improves timeliness for monitoring disease severity by up to 13 days.⁵ Leading indicators such as the percentage of ED visits with a COVID-19 diagnosis and the percentage of positive SARS-CoV-2 test results can capture changes in trends approximately 4 days earlier than hospital admission rates and provide complementary monitoring information, albeit with more limited geographic coverage.⁵ COVID-19–associated hospital admission rates are available down to the level of the health service area, which is mapped to counties.⁵ The high concordance with COVID-19 Community Levels (CCLs) is not surprising, because COVID-19 hospital admissions are the primary driver of CCLs and apply identical threshold levels, ensuring continuity beyond the public health emergency.⁵ One limitation of the existing level thresholds is insufficient granularity to detect changes during periods of low incidence; further monitoring and analysis would be needed before adjusting thresholds.⁵ [\[Full text\]](#)



Cases and Deaths as of 08 May 2023

- As of 08 May 2023 (1PM, GMT+7), worldwide, there were **687,818,459** confirmed cases, including **6,871,089** deaths. Globally, Case Fatality Rate (CFR) was **1.0%**.
- 35,895,997 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 REGION	Brunei Darussalam	10 Mar 20	03-May-23	288,051	-	225	-	64,053	450,404	445,929	338,987	99.3
	Cambodia	27 Jan 20	07-May-23	138,733	-	3,056	-	841	15,244,858	14,609,937	10,433,215	87.1
	Indonesia	02 Mar 20	08-May-23	6,789,811	2,457	161,496	37	2,490	203,657,535	172,693,321	67,952,274	62.7
	Lao PDR	24 Mar 20	04-May-23	218,081	-	758	-	3,041	5,888,649	5,222,417		69.4
	Malaysia	25 Jan 20	30-May-23	5,071,840	-	37,020	-	15,788	28,125,245	27,536,657	17,056,957	81.1
	Myanmar	23 Mar 20	07-May-23	636,031	-	19,492	-	1,173	34,777,314	27,545,329	2,227,351	50.8
	Philippines	30 Jan 20	07-May-23	4,102,788	-	66,453	-	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	08-May-23	4,734,000	1,699	33,967	-	6,791	57,005,497	53,486,086	32,143,431	74.6
	Vietnam	23 Jan 20	07-May-23	11,575,883	-	43,196	-	11,950	90,450,881	85,848,363	57,452,750	87.4
ASEAN COUNTRIES				35,895,997	4,156	367,390	37	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.

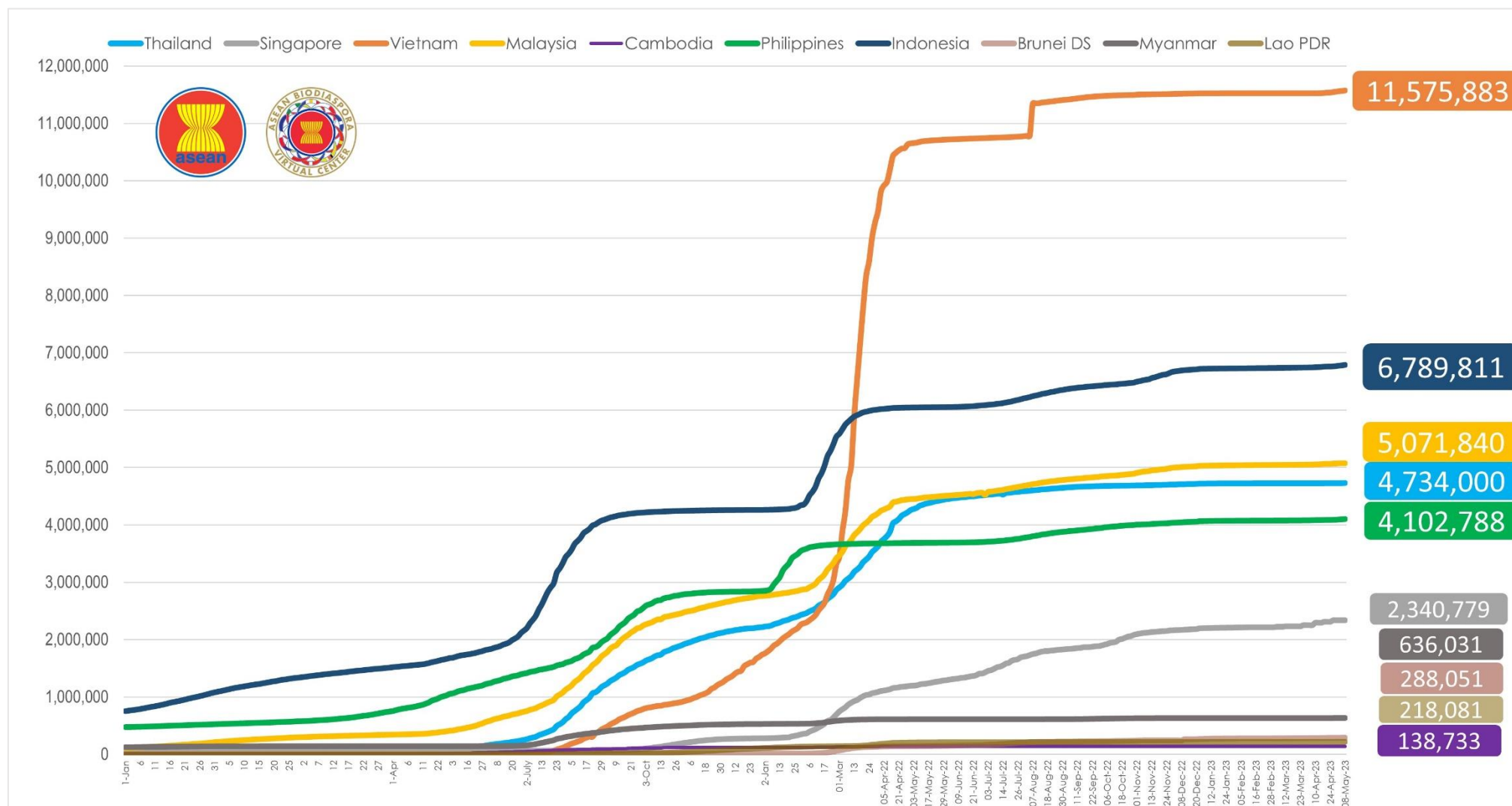
REGION	TOTAL CONFIRMED CASES	NEW CASES	TOTAL DEATHS	NEW DEATHS
ASIA	195,163,345	11,630	1,205,253	25
AFRICA	12,820,146	17	258,735	
AMERICAS	194,925,215	285	2,985,072	2
EUROPE	249,013,756		2,054,639	-
TOTAL	651,922,462	11,932	6,503,699	27

**Data References: [Andra Farm](#), [Worldometer](#), [DOH Philippines](#), and the [WHO](#)



COVID-19 Epi curve among ASEAN Countries:

From January 1, 2022 to May 8, 2023



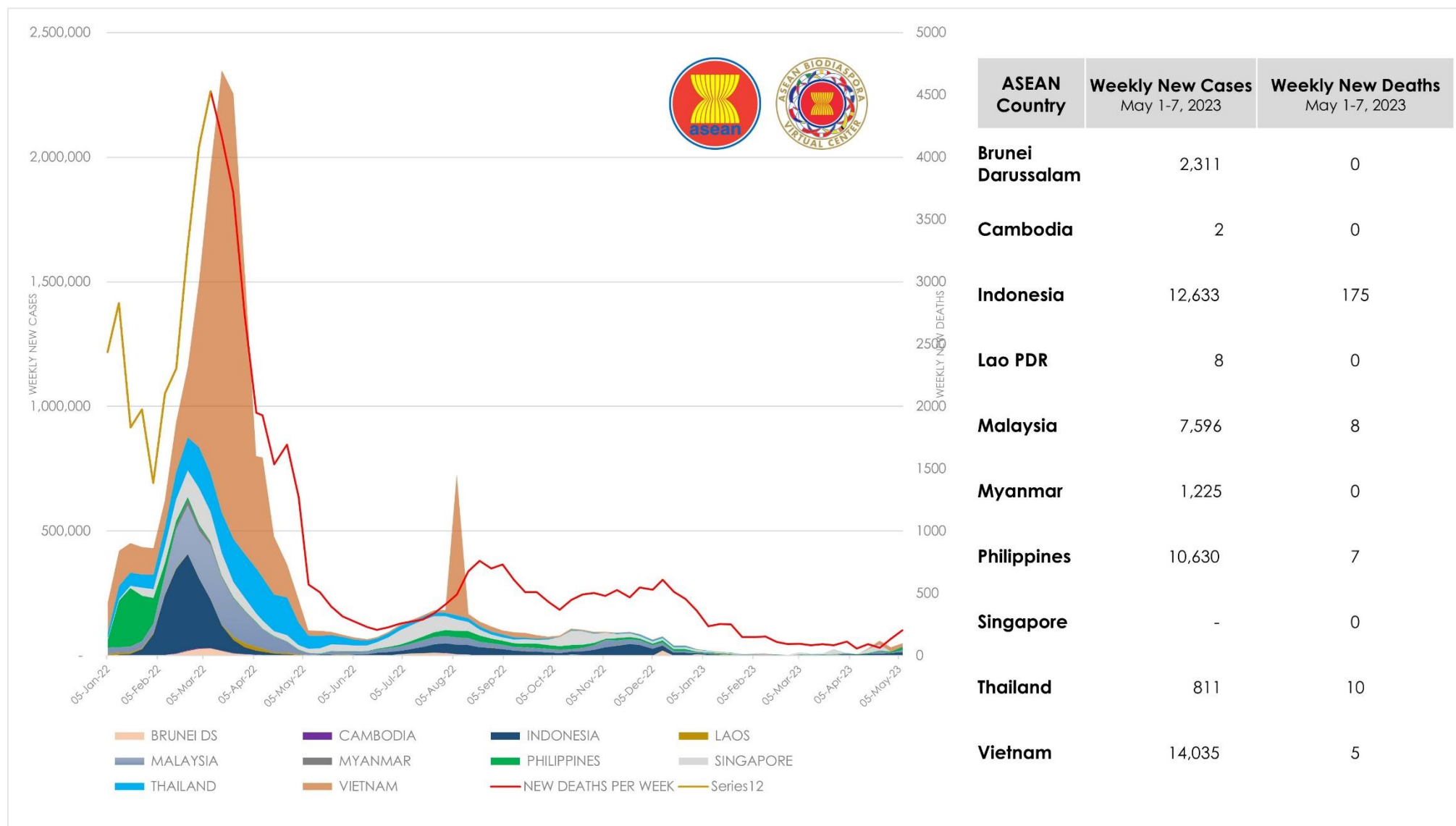
Cumulative cases of COVID-19 in the ASEAN Region as of May 8, 2023 (Report generated by ASEAN Biodiaspora Virtual Center)

*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.



ASEAN Weekly COVID-19 New Cases and New Deaths

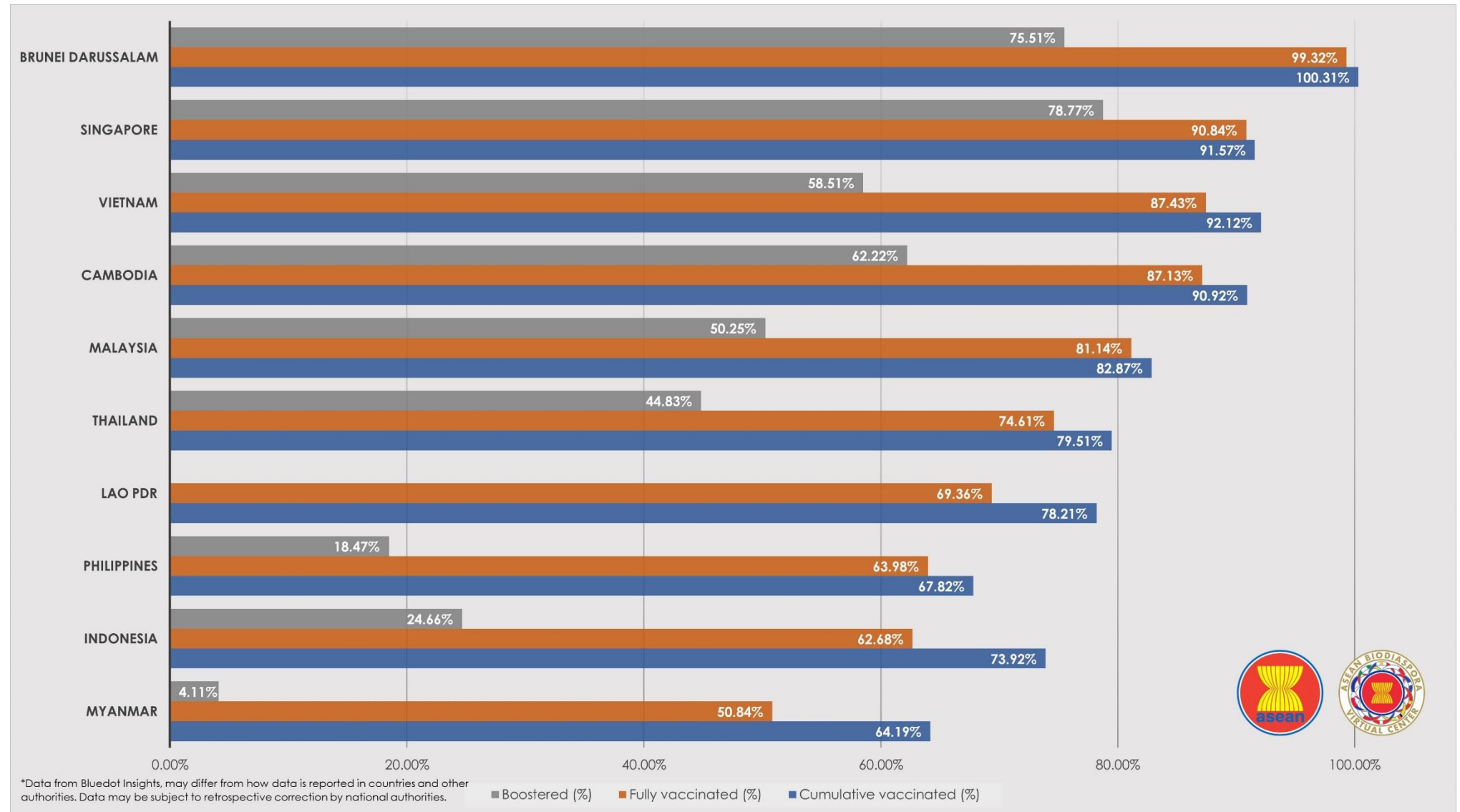
From January 1, 2022 to May 7, 2023





ASEAN COVID-19 Vaccination Status

as of 09 March 2023



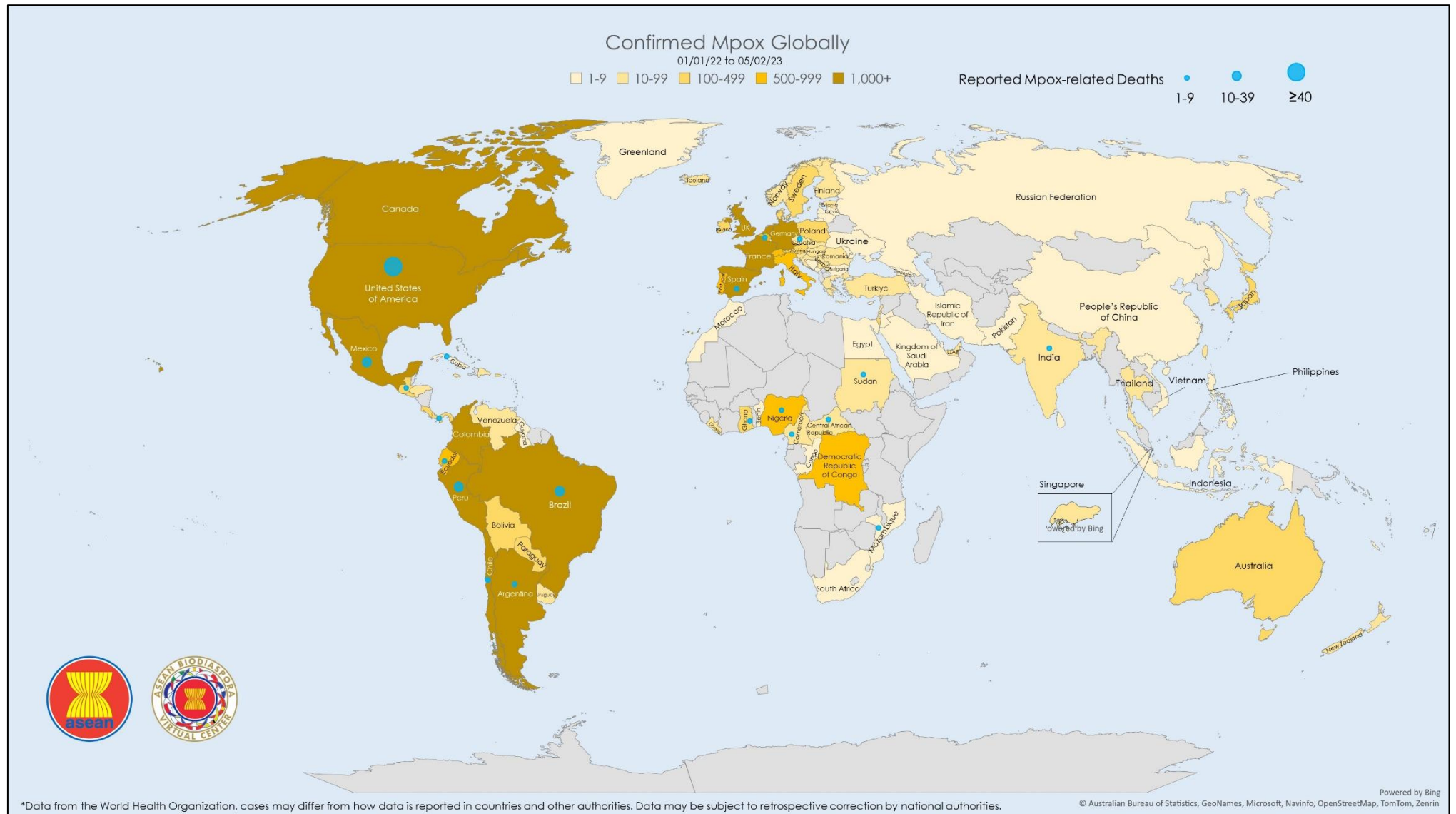
*Last update in COVID-19 vaccination status in ASEAN was on March 9, 2023.





Mpox (Monkeypox) Cases Reported Globally

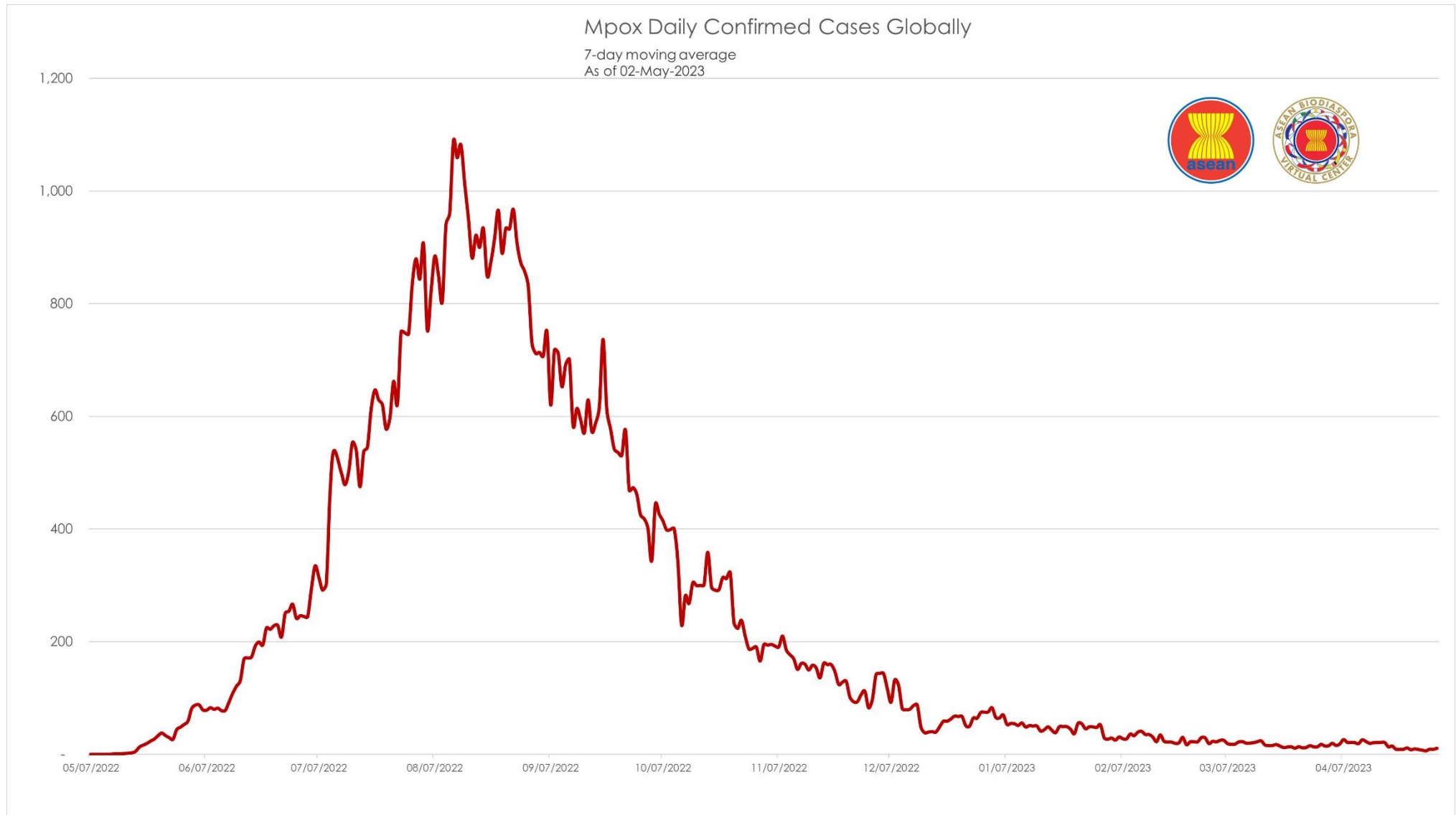
as of May 2, 2023





Mpox Daily Trend Globally

as of May 2, 2023





Mpox: Highlights and Situation Overview

- As of 02 May 2023 (1PM, GMT+7), worldwide, there were **87,300** confirmed cases, including **130** deaths. Globally, Case Fatality Rate (CFR) was **0.15%**.
- 51 confirmed cases** in the ASEAN region, with CFR of **0%**.
- 87,249 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	21	-	-	0.00%
Vietnam	2	-	-	0.00%
ASEAN Total	51	-	-	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	127	-	-	0.00%
New Caledonia	1	-	-	0.00%
New Zealand	41	-	-	0.00%
People's Republic of China*	71	-	-	0.00%
Republic of Korea	49	-	-	0.00%
Sri Lanka	2	-	-	0.00%
Asia-Pacific Total	457	-	1	0.22%

*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	30,154	-	44	0.15%
Brazil	10,915	-	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	1,619	-	19	1.17%
AMERICAS	59,240	-	104	0.18%
ASEAN	51	-	-	0.00%
ASIA PACIFIC	457	-	1	0.22%
EUROPE	25,610	-	6	0.02%
MIDDLE EAST	323	-	-	0.00%
TOTAL	87,300	0	130	0.15%

Research Update (Published and peer-reviewed studies)

- In response to a global shortage of modified vaccinia Ankara–Bavarian Nordic (MVA-BN) vaccines, Australia adopted a dose sparing schedule for the recent mpox outbreak, with 0.1-mL intradermal MVA-BN vaccine recommended for preexposure and 0.5-mL subcutaneous vaccine for postexposure prophylaxis, 2 doses given 4 weeks apart.¹ This post marketing study of adverse events, **Short-term Adverse Events Following Immunization with Modified Vaccinia Ankara-Bavarian Nordic (MVA-BN) Vaccine for Mpox**, analyzed data on adverse events after subcutaneous and intradermal MVA-BN collected by Australia's vaccine safety surveillance system, AusVaxSafety.¹ Individuals who received MVA-BN between August 8, 2022, and March 20, 2023, at sentinel AusVaxSafety surveillance sites were invited to participate in surveillance via QR code self-registration, as previously described.¹ Of 21,601 individuals who received an MVA-BN vaccine and registered for surveillance, 13,306 (62%) responded to the day 7 survey; the median (IQR) age was 41 (33-52) years, 97% identified as men, 1.7% were Aboriginal and/or Torres Strait Islander individuals, and 5643 had subcutaneous and 7663 had intradermal vaccination.¹ The adverse event rate was highest following dose 1 of intradermal vaccination (53%) and lowest following dose 2 of subcutaneous vaccination (31%).¹ The most common adverse events were local redness, itching, and swelling following intradermal vaccination and local pain, swelling, and redness following subcutaneous vaccination.¹ Cardiorespiratory symptoms were rare.¹ Local adverse events were highest following intradermal vaccination and following dose 1 for both administration routes (intradermal: 52% after dose 1 vs 34% after dose 2; subcutaneous: 44% after dose 1 vs 28% after dose 2). Systemic adverse events rates were similar between administration routes, but highest following dose 1 for both administration routes (intradermal: 21% after dose 1 vs 15% after dose 2; subcutaneous: 23% after dose 1 vs 14% after dose 2).¹ People with atopic dermatitis reported the highest adverse event rate by administration route and dose (47%- 81%).¹ People with immunodeficiency and/or HIV reported similar adverse event rates as individuals without any chronic medical condition.¹ This study also found a low percentage of people reporting medical reviews or missing daily activities, suggesting that the vaccine is generally well-tolerated.¹ [\[Full text\]](#)
- Case Reporting and Surveillance (CRS) are crucial to combat the global spread of the Monkeypox virus (Mpox).² To support CRS, the World Health Organization (WHO) has released standardized case definitions for suspected, probable, confirmed, and discarded cases.² However, these definitions are often subject to localized adaptations by countries leading to heterogeneity in the collected data.² Herein, this report, **Variations in national surveillance reporting for Mpox virus: A comparative analysis in 32 countries**, compared



the differences in Mpox case definitions in 32 countries that collectively reported 96% of the global Mpox caseload.² For confirmed cases, 18 countries (56%) followed WHO guidelines and tested for Mpox using species-specific PCR and/or sequencing.² For probable and suspected cases, seven and eight countries, respectively were found to have not released definitions in their national documentations. Furthermore, none of the countries completely matched WHO's criteria for probable and suspected cases.² Overlapping amalgamations of the criteria were frequently noticed.² Regarding discarded cases, only 13 countries (41%) reported definitions, with only two countries (6%) having definitions consistent with WHO guidelines.² For case reporting, 12 countries (38%) were found to report both probable and confirmed cases, in line with WHO requirements.² The heterogeneity in case definitions and reporting highlights the pressing need for homogenization in the implementation of these guidelines.² Homogenization would drastically improve data quality and aid data-scientists, epidemiologists, and clinicians to better understand and model the true disease burden in society, followed by formulation and implementation of targeted interventions to curb the virus spread.² [\[Full text\]](#)

- Following the current outbreak, the mpox virus (formerly: monkeypox virus) is a highly threatening pathogen with public health significance, although mpox is still considered a neglected disease.³ Previously confined mainly to Africa, the virus spread globally in 2022.³ However, knowledge about mpox is limited, causing a distorted perception of the disease.³ Thus, this study, **Global mpox research in the light of the current outbreak: demands, drivers, and obstacles**, aimed to collect all information on scientific mpox publishing and to analyze them according to their chronological, geographical, and epidemiological patterns.³ It was not until the global outbreak that the relatively small number of publications was replaced by the immense increase in annual publication numbers.³ Of the total database, $n = 1,399$ (91.02%) could be assigned to a country of origin and thus included in the analysis of publishing countries.³ The most frequently published country on mpox was the USA ($n = 781$), followed by Germany ($n = 119$), and the United Kingdom (UK, $n = 109$). Unusually compared to other scientific topics [30], the Democratic Republic of Congo (DRC, $n = 79$) ranked 4th, followed by Russia ($n = 64$).³ The second most frequently published African country was Nigeria (ranked 9th, $n = 50$). The distribution of citations more or less follows that of publication numbers (USA: $c = 20,896$; Germany: $c = 3165$, Switzerland: $c = 2741$).³ In terms of citation rate, Switzerland ranked first ($cr = 54.82$), followed by Canada ($cr = 41.52$), and Belgium ($cr = 41.23$).³ The most important player is the USA with a central role in international networking.³ They collaborated mainly with the Democratic Republic of Congo, a primary endemic country where the first viral clades were determined.³ Nigeria and other African countries were also represented, although mainly in the form of co-authorships.³ The fact that few of the first authors are from low- or middle-economic countries demonstrates the need to promote equitable networking at the global level and their support for surveillance and targeted immunization programs.³ [\[Full text\]](#)



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