

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 685 million cases and over 6 million deaths attributed to COVID-19.
- **India** reported a single-day rise of 7,830 new COVID-19 on April 12 (Wednesday), the highest in 223 days.⁶ The active caseload across the country has increased to 40,215.⁶ According to the Indian SARS-CoV-2 Genomics Consortium (INSACOG) data, 234 cases of XBB1.16.1 mutated sub-variant have been found in the country.⁶ XBB1.16.1 is a mutation of Omicron's infectious XBB1.16 variant.⁶ According to INSACOG's data, XBB1.16.1 has been found across 13 states and Union Territories, including Delhi, Gujarat, and Haryana.⁶ Meanwhile, 1,774 cases of the XBB1.16 variant have been found across 22 states and Union Territories.⁶ [\[Full article\]](#)

Regional Update

- **Singapore:** COVID-19 infections are on the rise again. Recent weekly official figures showed the highest surge so far this year, with cases climbing since the beginning of last month.⁷ In the final week of March, 28,410 cases were recorded, almost double of the previous week's figure of 14,467.⁷ Doctors, however, said that most cases are mild, adding that this is part of living with the virus as Singapore shifts into the endemic phase.⁷ According to the Ministry of Health, the current COVID-19 infection wave is driven by a mix of XBB subvariants including XBB.1.5, XBB.1.9 and XBB.1.16, adding that there is currently no evidence of increased severity in the cases.⁷ The ministry and doctors are reminding the public to get their COVID-19 booster shots when due, and to continue good personal habits, such as wearing masks in crowded areas, and seeking prompt medical attention if unwell.⁷ [\[Full article\]](#)

Research Update (Published and peer-reviewed studies)

- The study **Risk factors for psychiatric symptoms in patients with long COVID: A systematic review** found that the psychiatric symptoms of long COVID were, from most to least prevalent, anxiety, depression, post-traumatic stress disorder (PTSD), poor sleep, hyperfocus on symptoms (somatic disorder), impaired cognition, and obsessive-compulsive disorder (OCD).⁸ Women and those with a history of psychiatric diagnoses were at greater risk for these symptoms.⁸ Padjadjaran University researchers in Indonesia analyzed the results of 23 studies published from January 2020 to October 2021 involving adult COVID-19 patients with psychiatric symptoms lasting more than 4 weeks after infection.⁸ Of the 23 studies, 15 were cohort, 5 were cross-sectional, and 3 were case-control.⁸ They were conducted in 13 countries in Europe, Asia, and North and South America.⁸ Nineteen studies reported anxiety prevalence rates of 6.8% to 47.8%, 17 studies identified depression rates of 4.4% to 35.9%, 7 found PTSD rates of 13.0% to 42.8%, and 13 showed rates of poor sleep, sleep disturbances, and insomnia in 4.4% to 50.0%.⁸ One article found a 35.2% cognitive-deficit rate, one showed a 73.2% rate of impaired cognition, and one identified an OCD rate of 26.0%.⁸ According to the researchers, physical and psychiatric symptoms may have a reciprocal relationship, adding that mental health issues in Long COVID patients were known to be associated with persistent physical symptoms, such as myalgia and shortness of breath.⁸ [\[Full text\]](#)
- The study **Health Care Access and Affordability Among US Adults Aged 18 to 64 Years With Self-reported Post-COVID-19 Condition** found that adult long-COVID patients, compared to COVID-19 patients without persistent symptoms and uninfected adults, were more likely to report unmet healthcare needs in the past year due to factors such



as cost, difficulty finding providers accepting new patients, and getting a timely appointment and insurance authorization.⁹ Researchers at the Urban Institute in Washington, DC analyzed data from the online Health Reform Monitoring Survey from June 17 to July 5, 2022 among 9,484 US adults aged 18 to 64 years.⁹ Among the 9,484 respondents, 3,382 reported ever being infected with SARS-CoV-2 (36.4%), and 833 (22.5%) said their symptoms lingered for at least 4 weeks.⁹ A total of 54.1% and 16.1% of these patients said their symptoms reduced their ability to perform daily activities a little or a lot, respectively.⁹ Among all respondents, 610 (16.2%) reported symptoms persisting for 3 months or more.⁹ Long-COVID participants were more likely than ever- and never-infected patients to attribute a lack of access to costs, problems finding clinicians accepting new patients, securing a timely appointment, getting to a clinic when it was open, getting a telehealth visit, receiving health insurance authorization, finding a doctor accepting their insurance, and getting information from their plan about healthcare networks, covered services, or cost of care.⁹ The researchers called for policies designed to improve healthcare access and affordability focused on accelerating the development of therapies and clinical guidelines, training providers, and reducing insurance and cost barriers, adding that the consequences associated with unmet medical needs may include exacerbated risk of disability and reduced health-related quality of life.⁹ [\[Full text\]](#)



Cases and Deaths as of 11 April 2023

- As of 11 April 2023 (1PM, GMT+7), worldwide, there were **685,101,320** confirmed cases, including **6,838,591** deaths. Globally, Case Fatality Rate (CFR) was **1.0%**.
- 35,718,880 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	30-Mar-23	283,345	-	225	-	64,053	450,404	445,929	338,987	99.3
	Cambodia	27 Jan 20	04-Apr-23	138,726	-	3,056	-	841	15,244,858	14,609,937	10,433,215	87.1
	Indonesia	02 Mar 20	11-Apr-23	6,752,606	-	161,052	-	2,490	203,657,535	172,693,321	67,952,274	62.7
	Lao PDR	24 Mar 20	01-Apr-23	218,037	-	758	-	3,041	5,888,649	5,222,417		69.4
	Malaysia	25 Jan 20	03-Apr-23	5,052,337	-	36,982	-	15,788	28,125,245	27,536,657	17,056,957	81.1
	Myanmar	23 Mar 20	10-Apr-23	634,101	-	19,490	-	1,173	34,777,314	27,545,329	2,227,351	50.8
	Philippines	30 Jan 20	11-Apr-23	4,084,030	-	66,429	-	3,771	78,369,243	73,937,435	21,341,197	64.0
	Singapore	23 Jan 20	31-Mar-23	2,298,689	-	1,727	-	39,049	5,161,990	5,120,768	4,440,289	90.8
	Thailand	13 Jan 20	10-Apr-23	4,728,967	-	33,940	-	6,791	57,005,497	53,486,086	32,143,431	74.6
	Vietnam	23 Jan 20	11-Apr-23	11,528,042	-	43,186	-	11,950	90,450,881	85,848,363	57,452,750	87.4
ASEAN COUNTRIES				35,718,880	-	366,845	-	148,946	519,131,616	466,446,242	213,386,451	

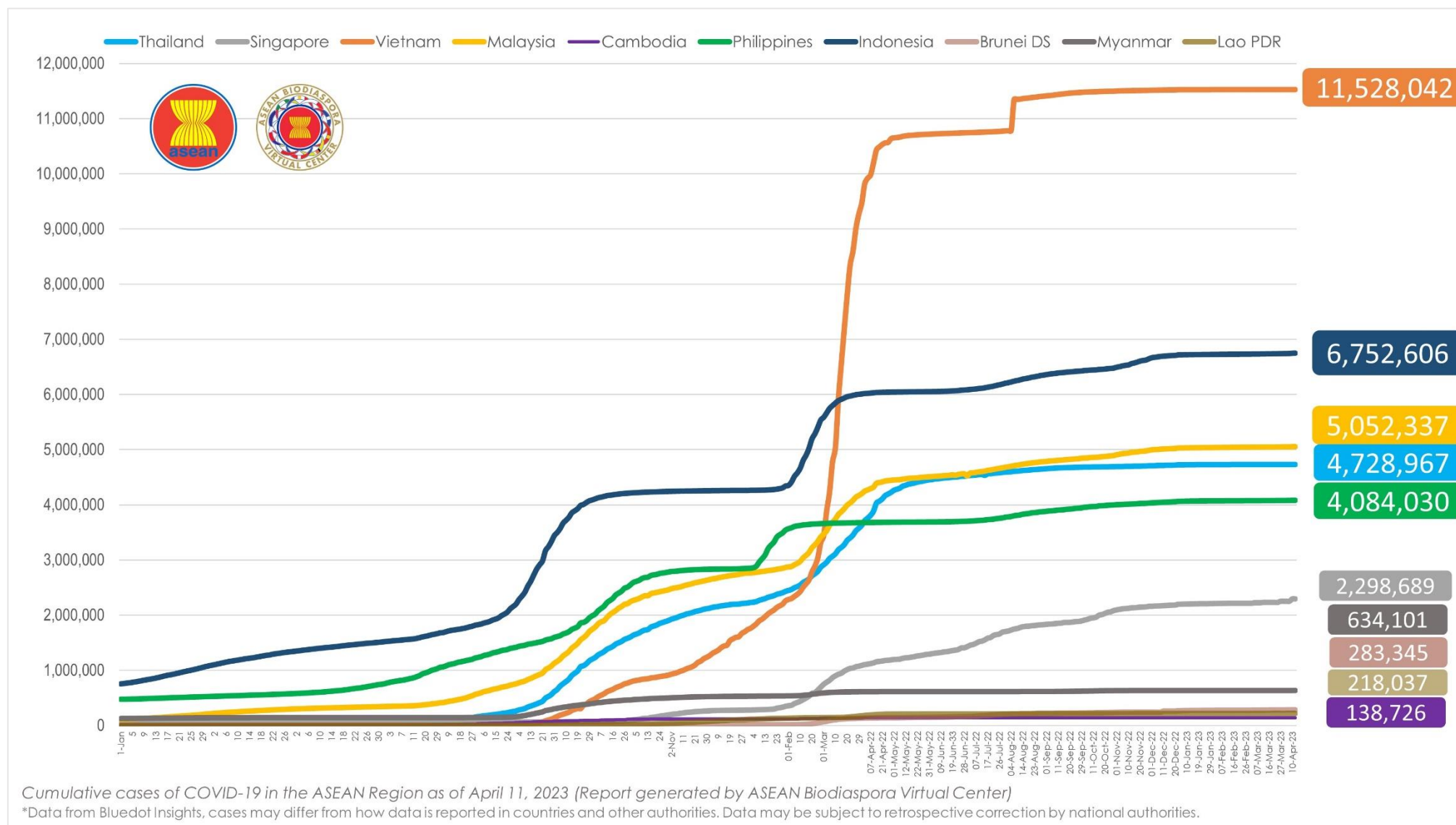
*There have been no tests reported in the last 14 days in the ASEAN Region.

REGION	TOTAL CONFIRMED CASES	NEW CASES	TOTAL DEATHS	NEW DEATHS
ASIA	194,119,570	13,966	1,202,232	16
AFRICA	12,814,077	-	258,672	
AMERICAS	194,287,257	237	2,977,642	1
EUROPE	248,161,536	-	2,033,200	-
TOTAL	649,382,440	14,203	6,471,746	17



COVID-19 Epi curve among ASEAN Countries:

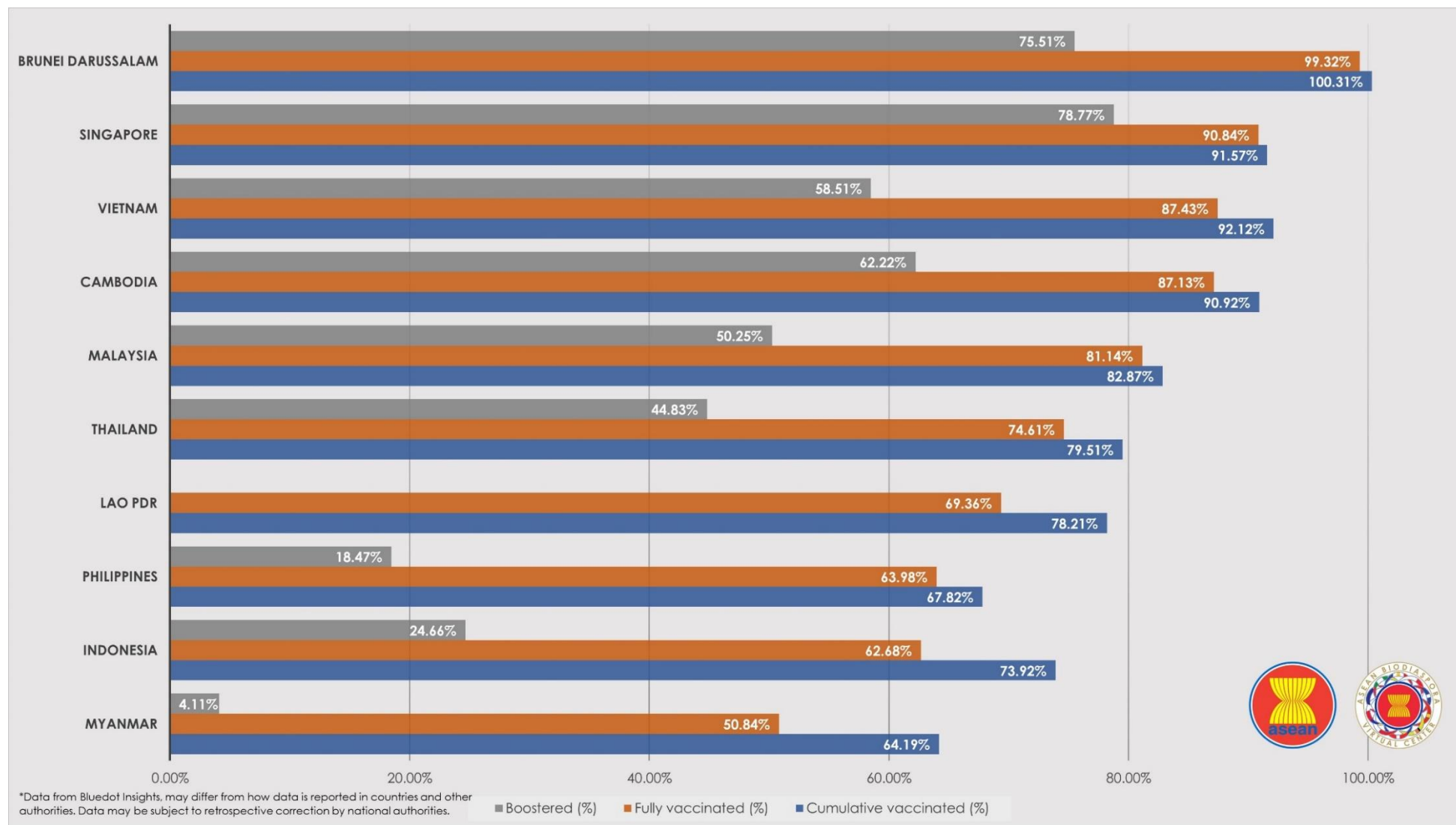
From January 1, 2021 to April 11, 2023





ASEAN COVID-19 Vaccination Status

as of 09 March 2023

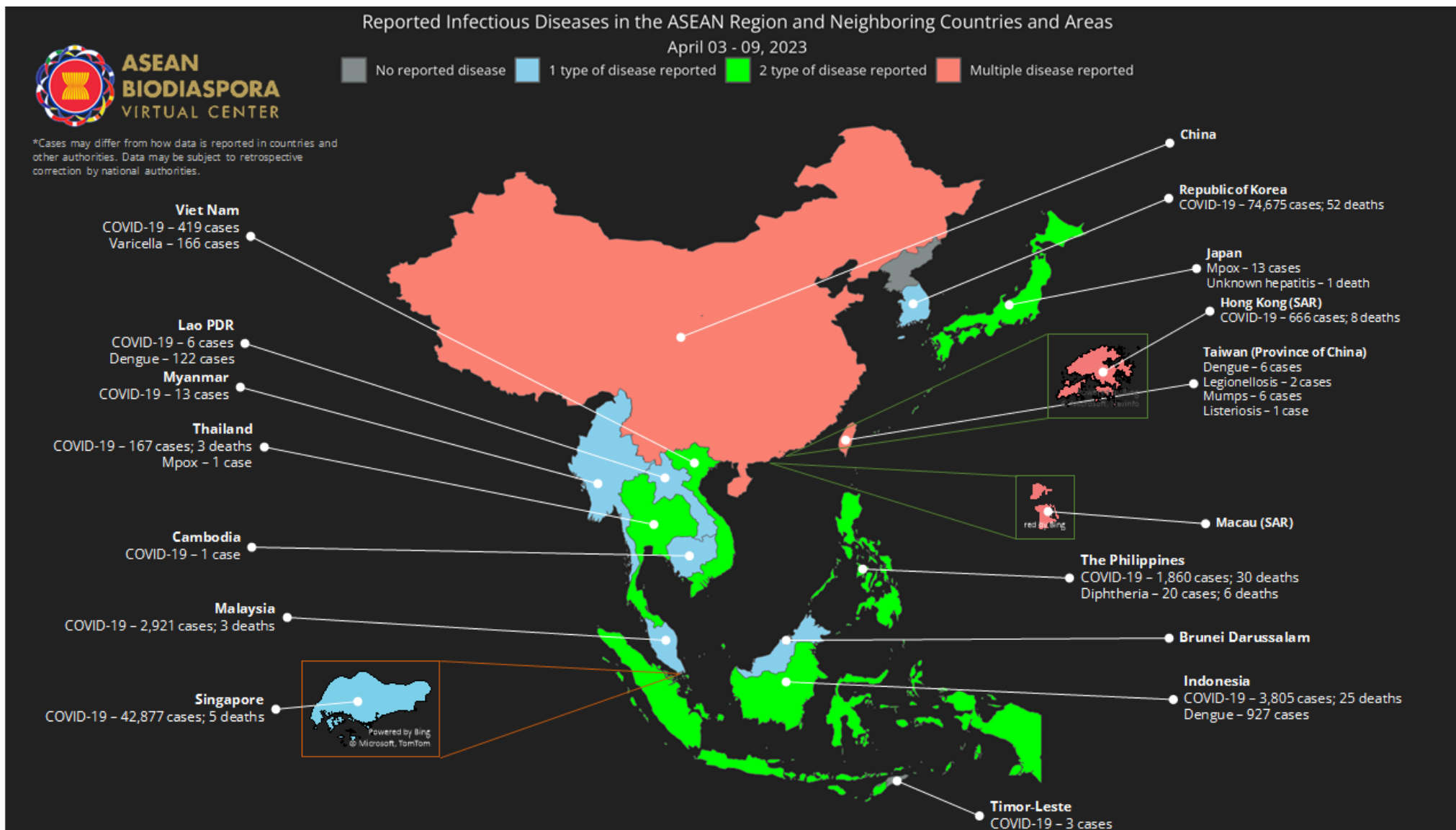


*Last update in COVID-19 vaccination status in ASEAN was on March 9, 2023.



Reported Infectious Diseases in ASEAN Region and Neighboring Countries

From April 3-9, 2023





Reported Infectious Diseases Other than COVID-19, Mpox, Measles, and Dengue

April 3-9, 2023

Infectious Disease Global Updates

Marburg Disease

- **Equatorial Guinea:** The Equatorial Guinea Ministry of Health and Social Welfare (MINSABS) reported a newly confirmed case and death in Nsork, Wele-Nzas Province, which is located in the eastern portion of Equatorial Guinea (EG). It borders the provinces of Centro Sur to the west and Kié-Ntem to the north with Gabon's Woleu-Ntem Province to the east and south. As of 02 April 2023, overall reported cases (confirmed and probable): 35 human cases including 30 deaths, CFR=85.7%. Previously known affected locations: Kié-Ntem Province (Ebibeyin), Centro Sur Province (Evinayong), Litoral Province (Bata). Bata currently has the largest number of confirmed cases and deaths (8 cases and 5 deaths). The city is a major economic center for EG, has the largest commercial port, and has the second-largest population in the country. Therefore, outbreaks in this region increase the risk of cases being exported to other densely populated areas both domestically and internationally. On 29-Mar-2023, the WHO released a statement that clinical trials for three vaccine candidates for the Marburg disease are ready for Phase 3 with the agreement and cooperation of Tanzania and Equatorial Guinea. The vaccine distributors are Sabin Vaccine Institute - 750 doses, The University of Oxford - 1000 doses and Public Health Vaccines - 250 doses.

Unknown Hemorrhagic Fever

- **Burundi:** Local media reports are raising concerns over an unknown hemorrhagic illness that has been affecting individuals across different communities of at least two different provinces within Burundi, nearby areas to the Kagera region in northwestern Tanzania where there is an ongoing outbreak of Marburg virus. Cases presented with abdominal pain, nasal bleeding, headache, high fever, vomiting, and dizziness. As of 28 March 2023, cases and deaths have been reported in Kirundo Province, northern Burundi: Gitobe commune (3 deaths), Ntega commune (unspecified number of symptomatic individuals brought to a local hospital), Giteranyi commune (1 death), and Musinga Province, northeastern Burundi: Butihinda commune (2 cases admitted to a local hospital). This event is poorly described and still awaiting confirmation of likely cause. There are other ongoing high concern hemorrhagic disease outbreaks in Africa that may be linked.

Highly Pathogenic Avian Influenza A(H5N1)

- **Chile:** On 29-March-2023, one laboratory-confirmed case (index case) by the Institute of Public Health of Chile (ISP) was reported. On 5-April-2023, one of the nine close contacts of Chile's first confirmed human avian influenza A(H5N1) developed symptoms of ILI. Laboratory testing at ISP is ongoing and the period of monitoring has been extended for seven more days for this close contact (until at least 11-April-2023).

Infectious Disease in ASEAN region and Neighboring Countries Updates

Diphtheria

- **Philippines:** Health authorities in the Philippines have reported 20 total diphtheria cases through March 18, a 567% increase compared to the three cases reported during the same period in 2022.¹ Eight cases have been reported in the Metro Manila area, followed by Calabarzon with 5 and 3 cases in Central Luzon.¹ Six fatalities have been



reported to date for a 30% case fatality rate. This compares with zero deaths reported last year through March 18.¹ [\[Full article\]](#)

Unknown Hepatitis

- Japan:** Japanese health authorities have confirmed what appears to be Japan's first death from an unexplained case of acute hepatitis that has reportedly been affecting children.² Since April of last year, more than 1,000 cases of acute hepatitis of unknown cause have been reported, mainly in Europe and the United States.² Some patients have required liver transplants, and some have reportedly died.² The National Institute of Infectious Diseases has disclosed the death of a child from the disease.² The NIID says that as of February, 156 cases of acute hepatitis have been reported.² Three required liver transplants.² The patients were aged between 16 months and nine years and two months, and averaged four years and six months.² Many of the symptoms are digestive in nature, including fevers, stomach pains, diarrhea and vomiting.² The Japan Society of Pediatric Hepatology says about ten severe acute hepatitis cases of unexplained origin are reported among children every year.² The JSPH says it has set up a team of experts to determine what symptoms the deceased patient developed, and the cause of the case.² Overseas studies have pointed to the possibility that acute hepatitis may be linked to a type of adenovirus known to cause diarrhea and vomiting.² [\[Full article\]](#)

Severe Fever with Thrombocytopenia Syndrome (SFTS)

- South Korea:** The Korea Centers for Disease Control and Prevention urges people to follow preventive measures to avoid being bitten by ticks during outdoor activities such as farming, as the first death from severe fever with thrombocytopenia syndrome (SFTS) this year [2023] occurred in Haenam-gun, Jeollanam-do.³ The patient, an 88 year old woman from Haenam-gun, Jeollanam-do, did agricultural work in the field in front of her house before the onset of symptoms.³ On 27 Mar 2023, she visited a medical institution with fever symptoms and was hospitalized and discharged.³ She subsequently tested positive for SFTS on 5 Apr 2023 during her rehospitalization as her condition worsened, and she died on 6 Apr 2023.³ A total of 1697 patients with SFTS have occurred between 2013 when the first patient was reported in Korea until 2022, and 317 of them died, equating to a case fatality rate of 18.7%.³ Severe fever with thrombocytopenia syndrome (SFTS) is a newly emerging infectious disease.³ Symptoms and laboratory abnormalities are fever, thrombocytopenia, leukocytopenia, and elevated serum enzyme levels.³ Multi-organ failure occurs in severe cases, and 6%-30% of case-patients die. The syndrome is caused by the SFTS virus (SFTSV) (genus *_Phlebovirus_*, family *Bunyaviridae*).³ SFTS is an infectious disease that begins to occur in the spring when opportunities for tick exposure increase due to increased outdoor activities such as agricultural work, forest product collection, and mountain climbing.³ It has a high case fatality rate. There is no preventive vaccine or treatment.³ Although SFTS virus infections may be serious, there is evidence for subclinical or mild infections as well.³ There is also some evidence for person-to-person direct transmission of the virus, and a previous report provides more objective evidence that aerosol transmission may occur.³ [\[Full article\]](#)

Avian Influenza A(H3N8)

- China:** Human infection with avian influenza A(H3N8) virus Between 31 March to 6 April 2023, one new case of human infection with avian influenza A(H3N8) virus was reported to WHO in the Western Pacific Region. The case was a 56-year-old female from Guangdong province with an onset of illness on 22 February 2023. The case was detected through severe acute respiratory infection (SARI) surveillance systems. She was hospitalized for severe pneumonia on 3 March 2023 and subsequently died on 16 March

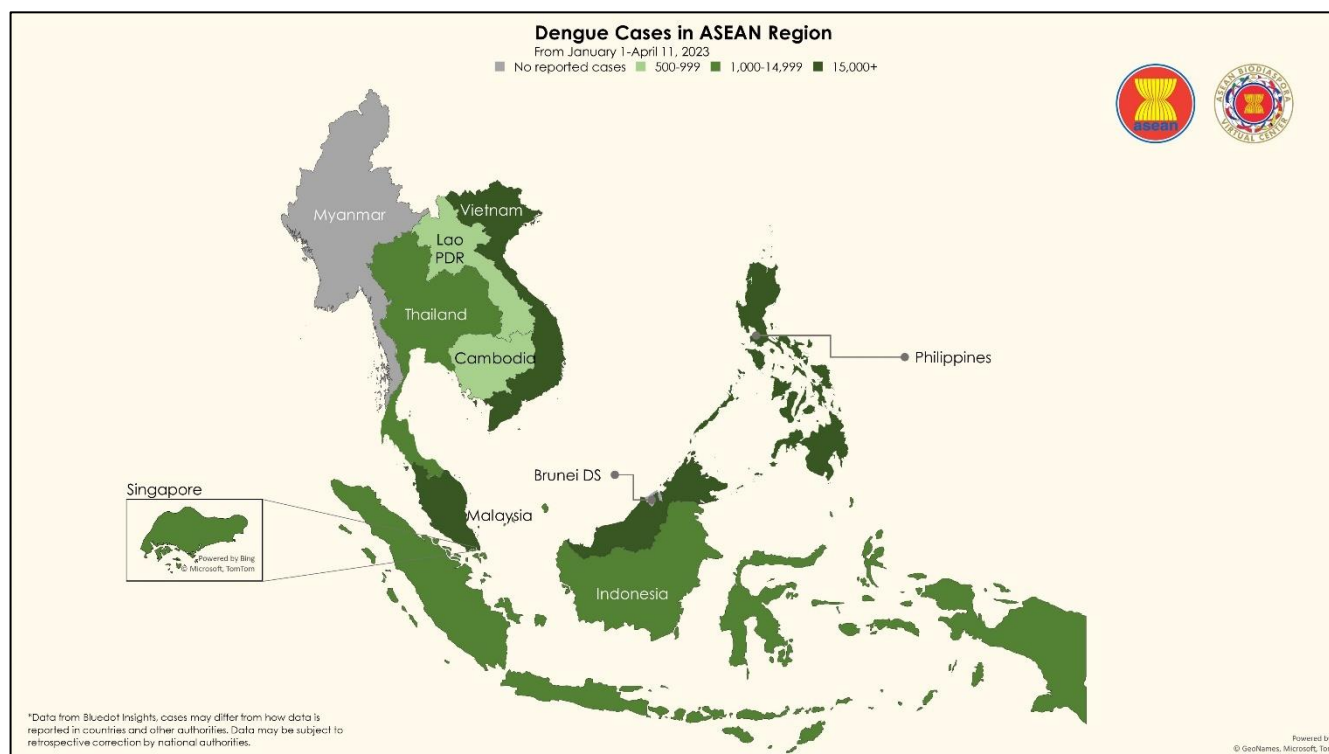


2023. The patient had multiple underlying conditions. She had a history of exposure to live poultry before the onset of the disease. No close contacts of the case developed an infection or symptoms of illness at the time of reporting. The environmental samples were collected from the patient's residence and the wet market where the patient was exposed before the onset of illness. The results of testing showed that the samples collected from the wet market were positive for H3. To date, a total of 3 laboratory-confirmed cases of human infection with influenza A(H3N8) virus with one death have been reported to WHO in the Western Pacific Region. [\[Full report\]](#)



Dengue Cases in ASEAN Region

From January 1 to April 11, 2023



Dengue cases in ASEAN region

Country	Dengue Cases	New Cases since the previous report	Deaths	Case Fatality Rate (CFR)
Brunei Darussalam	-	-	-	-
Cambodia	750	0	2	0.27%
Indonesia	3,857	927	24	0.62%
Lao PDR	670	0	0	0.00%
Malaysia	29,143	2,921	18	0.06%
Myanmar	-	-	-	-
Philippines	27,670	5,729	55	0.20%
Singapore	1,974	0	0	0.00%
Thailand	3,855	0	1	0.03%
Vietnam	20,537	7,537	0	0.00%
Total	88,456	17,114	100	0.11%

*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 **17,114** new dengue cases since previous report in Indonesia, Malaysia, the Philippines, and Vietnam. The region reported **88,456** total cases and **100** total deaths in 2023 with **0.11%** CFR.



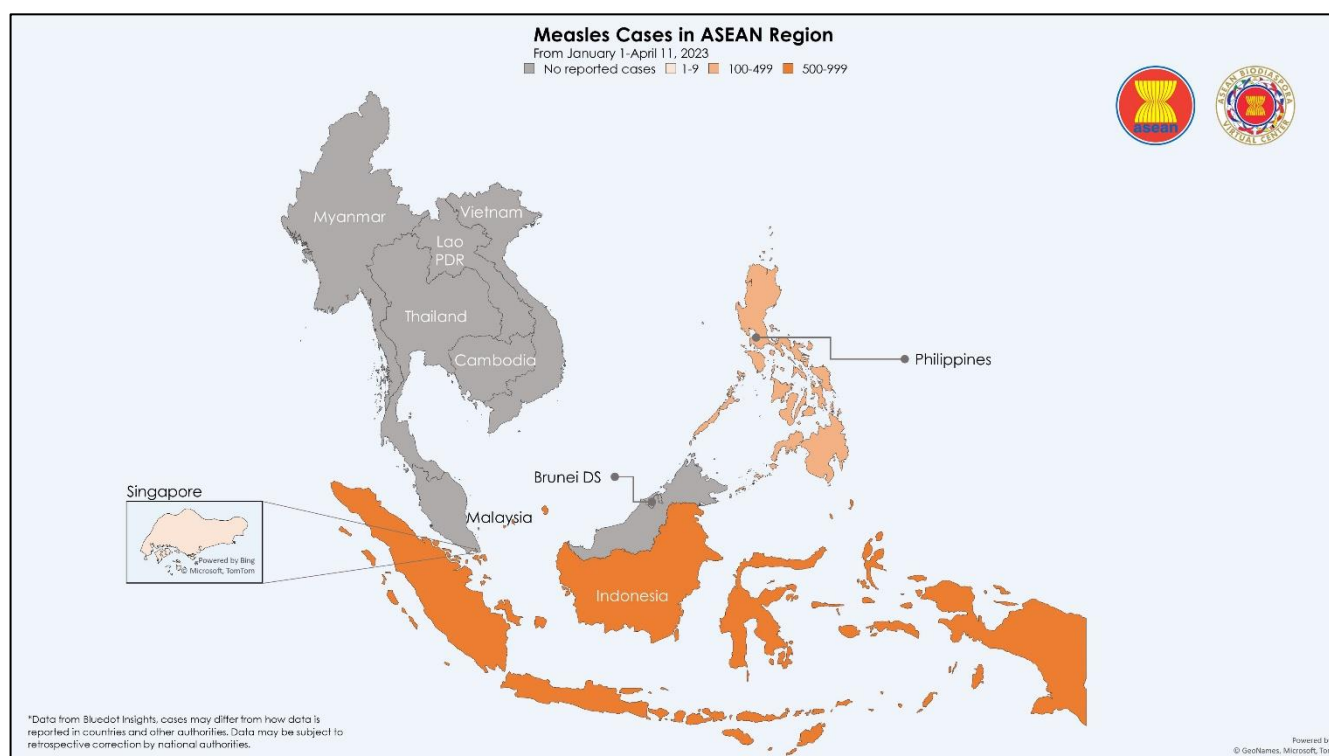
Dengue in ASEAN Region

- Indonesia:** The Bali Provincial Health Office (Dinkes) recorded 2,469 cases of dengue hemorrhagic fever (DHF) during the first three months of 2023, where the number shows a decreasing trend.⁴ "If we look at it in general, this means that from January to March there has actually been a decline, but indeed in some districts there has been an increase," said Head of Disease Management Section of the Bali Health Office I Nyoman Sudiyasa in Denpasar, Friday.⁴ The decrease in cases of dengue fever that has occurred can be seen from the overall figures, where in January there were 939 cases with three deaths, February 820 cases with one death, and March 710 cases with one death.⁴ Based on data compiled by the Bali Health Office, most patients during the first three months of 2023 came from Denpasar City, namely 781 cases, followed by Buleleng with 369 cases, Badung 305 cases, Klungkung 231 cases, Jembrana 210 cases, Gianyar 196 cases, Karangasem 156 cases, Tabanan 154 cases, and Bangli 67 cases.⁴ Even though Denpasar is the region with the highest number of cases, a decrease occurred there, namely from January 296 cases to 255 cases in February and 230 cases in March 2023.⁴ Meanwhile, Bangli with the smallest cases actually experienced an increase, from 17 cases in January, 17 cases in February and 33 cases in March.⁴ Sudiyasa said that this condition was heavily influenced by the season, apart from that public awareness of the mosquito nest eradication movement (PSN) was also considered important.⁴ [\[Full article\]](#)
- Malaysia:** According to the iDengue site, a total of 29,143 dengue cases were recorded in the country from Jan 1 to April 3.⁵ Selangor led all states and territories with 14,933 cases, followed by Sabah (2,916), Kuala Lumpur (2,669), Penang (2,450), Johor (1,949) and Kedah (1,058).⁵ At present there are 2,936 active outbreaks in localities throughout the country.⁵ The Health Ministry said the dengue virus serotype surveillance system reported a shift in predominant circulating dengue serotype from DEN-3 to DEN-4 in mid-2021 until the end of last year.⁵ At the moment, another switch has been observed from DEN-4 to DEN-2 which has contributed to the rise in cases, the ministry said.⁵ In terms of contributing factors, it said prolonged rainy seasons alternating with hot weather also provide abundant breeding places for Aedes mosquitoes.⁵ Furthermore, the Aedes mosquito emerges faster from the egg and becomes more aggressive in biting and breeding behaviour, it added.⁵ "The frequent population movement from a dengue-prone area to a non-endemic dengue area will introduce the dengue virus to a 'dengue-naive' population," the ministry said.⁵ On March 30, Health director-general Tan Sri Dr. Noor Hisham Abdullah said the rising dengue cases were part of its cyclical trend and expected to peak this year.⁵ The dengue trend follows a cyclical pattern with an epidemic being reported every four to five years, Dr. Noor Hisham added.⁵ On March 28, Deputy Prime Minister Datuk Seri Dr. Ahmad Zahid Hamidi announced that dengue cases in the country saw a massive 223% spike this year up to March compared to the same period last year.⁵ He also noted that the number of deaths from dengue complications had risen by over 300% to 17 this year from four last year.⁵ [\[Full article\]](#)



Measles Cases in ASEAN Region

From January 1 to April 11, 2023



Measles cases in ASEAN region

Country	Measles Cases	New Cases since the previous report	Deaths	Case Fatality Rate (CFR)
Brunei Darussalam	-	-	-	-
Cambodia	-	-	-	-
Indonesia	947	163	17	1.80%
Lao PDR	-	-	-	-
Malaysia	-	-	-	-
Myanmar	-	-	-	-
Philippines	208	67	-	0.00%
Singapore	3	0	-	0.00%
Thailand	-	-	-	-
Vietnam	-	-	-	-
Total	1,158	230	17	1.47%

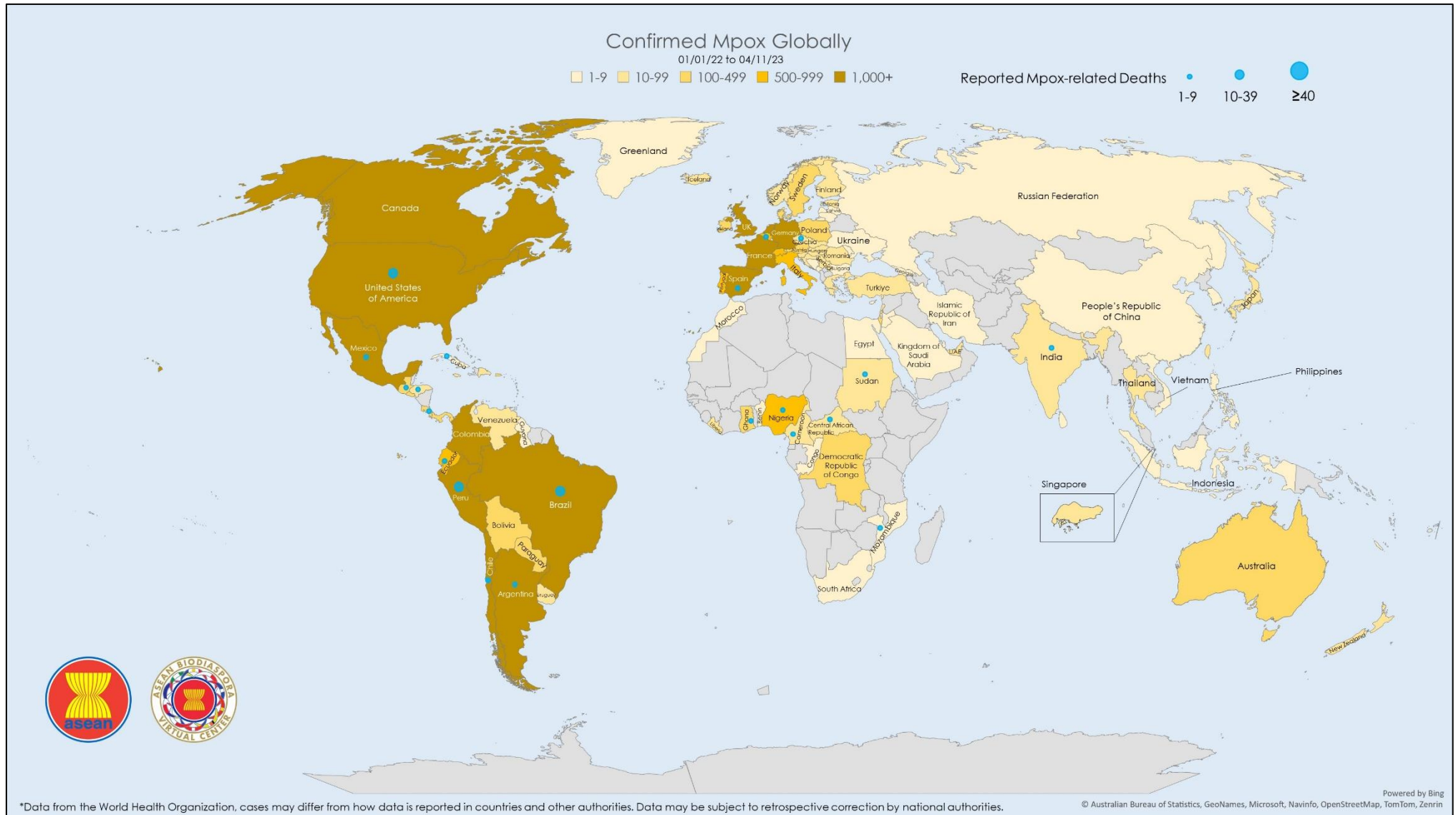
*Data from Bluedot Insights, cases may differ from how data is reported in countries and other authorities. Data may be subject to retrospective correction by national authorities.

- ASEAN region reported **230** new measles cases in since past report in Indonesia and the Philippines. The region reported **1,158** total cases and **17** total deaths in 2023 with **1.47%** CFR.



Mpox (Monkeypox) Cases Reported Globally

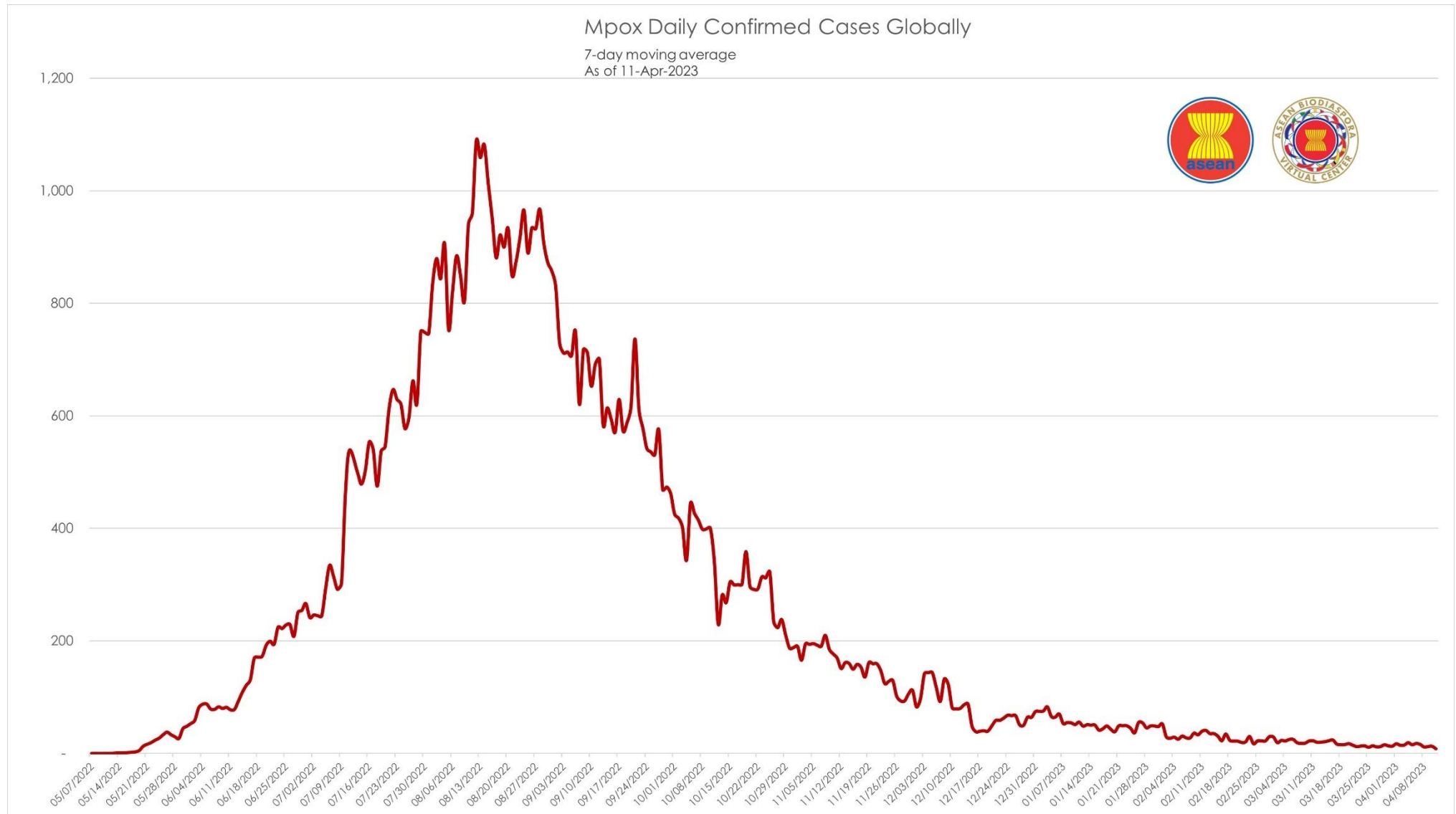
as of April 11, 2023





Mpox Daily Trend Globally

as of April 11, 2023





Mpox: Highlights and Situation Overview

- As of 11 April 2023 (1PM, GMT+7), worldwide, there were **86,930** confirmed cases, including **116** deaths. Globally, Case Fatality Rate (CFR) was **0.13%**.
- 48 confirmed cases** in the ASEAN region, with CFR of **0%**.
- 86,882 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	22	-	-	0.00%
Thailand	19	-	-	0.00%
Vietnam	2	-	-	0.00%
ASEAN Total	48	-	-	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	95	-	-	0.00%
New Caledonia	1	-	-	0.00%
New Zealand	41	-	-	0.00%
People's Republic of China*	24	-	-	0.00%
Republic of Korea*	5	-	-	0.00%
Sri Lanka	2	-	-	0.00%
Asia-Pacific Total	334	-	1	0.30%

*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	30,091	4	39	0.13%
Brazil	10,897	4	15	0.14%
Spain	7,549	-	3	0.04%
France	4,144	-	-	0.00%
Colombia	4,089	-	-	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	1,497	-	19	1.27%
AMERICAS	59,127	30	90	0.15%
ASEAN	48	-	-	0.00%
ASIA PACIFIC	334	-	1	0.30%
EUROPE	25,603	-	6	0.02%
MIDDLE EAST	321	-	-	0.00%
TOTAL	86,930	30	116	0.13%



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