

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**, over 686 million cases and over 6 million deaths have been attributed to COVID-19.
- The **World Health Organization (WHO)** recently published its initial risk assessment of the Omicron XBB.1.16 subvariant, which followed a meeting last week of its technical advisory group on virus evolution (TAG-VE). According to the report, XBB.1.16 has a similar genetic profile as XBB.1.5. XBB.1.16 has now been detected in 33 countries since the first reported case in January, with most sequences from India, the United States, Singapore, Australia, Canada, Brunei, Japan, and the United Kingdom. There were no changes in severity have been reported and XBB.1.16 doesn't seem to come with additional health risks compared to XBB.1.5, but it may become dominant in some countries owing to its growth advantage and immune escape properties. India and Indonesia have reported slight increases in hospital bed occupancy, but at levels much lower than in previous waves. Information from India points to no differences in hospitalization or the need for supplemental oxygen compared to other circulating lineages. According to the WHO, the overall risk is low and the level of confidence in the data showing an increased growth advantage is high, but it is low for the antibody escape data. The WHO said its confidence in the data pointing to no increased severity is moderate. [\[Full report\]](#)

Research Update (Published and peer-reviewed studies)

- The study **Molnupiravir and risk of post-acute sequelae of COVID-19: cohort study** by the US Department of Veterans Affairs (VA) found that the use of the antiviral molnupiravir (Lagevrio) within 5 days of infection was linked to reduced odds of persistent symptoms and related hospitalization and death among COVID-19 patients at risk for severe illness regardless of vaccination status or previous infections.¹ The study involved 229,286 veterans who tested positive for COVID-19 from January 5, 2022, to January 15, 2023 and had at least one risk factor for severe disease.¹ The data were collected from 171 VA medical centers and 1,112 outpatient sites.¹ A total of 11,472 patients received a prescription for molnupiravir within 5 days of diagnosis, and 217,814 received no COVID-19 treatment.¹ Long COVID was diagnosed at 6 months in 18.58% of the molnupiravir group and 21.55% in the no-treatment group.¹ Molnupiravir was associated with a lower risk of abnormal heart rhythms, blood clots in the lungs, deep vein thrombosis, fatigue and malaise, liver disease, acute kidney injury, muscle pain, and impaired thinking or reasoning.¹ However, according to the researchers, whether a higher dose or more prolonged duration of treatment results in higher risk reduction is also not clear.¹ [\[Full text\]](#)
- The study **Neutralizing Monoclonal Antibody Use and COVID-19 Infection Outcomes** offers insight into how and why scientists should continue looking at neutralizing monoclonal antibodies (nMAbs) to treat current and future variants.² The study was based on results seen in 14 months' use of nMAbs among 167,183 non-hospitalized COVID-19 patients from a group of four healthcare systems based in California, Minnesota, Texas, and Utah.² A total of 25,241 patients (15.1%) were treated with nMAbs; of those, 16,640 (65.9%) received casirivimab-imdevimab, 4,735 (18.8%) received bamlanivimab, 1,948 (7.7%) received bamlanivimab-etesevimab, and 1,918 (7.6%) received sotrovimab.² During the study period, treatment with nMAbs was safe, with potential adverse drug events identified in 38 treated patients (0.2%).² Outcomes measured by the study included emergency department (ED) visits, hospitalization, death, and a composite of hospitalization or death within 14 days and 30 days of the first positive COVID-19 test.² Treatment with nMAbs was associated with 24% lower odds



of ED visits within 14 days, 48% less risk of hospitalization within 14 days, and an 86% lower death rate within 30 days.² However, the ability of nMAbs to prevent hospitalizations weakened. The association of nMAb treatment with reduced risk of hospitalizations within 14 days was strongest during the Delta variant epoch but not during the Omicron BA.1 period.² According to the researchers, the findings of this study suggest that targeted risk stratification strategies may help optimize future nMAb treatment decisions.² [\[Full text\]](#)



Cases and Deaths as of 26 April 2023

- As of 26 April 2023 (1PM, GMT+7), worldwide, there were **686,646,653** confirmed cases, including **6,860,618** deaths. Globally, Case Fatality Rate (CFR) was **1.0%**.
- 35,820,028 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	18-Apr-23	285,740	-	225	-	64,053	450,404	445,929	338,987	99.3
	Cambodia	27 Jan 20	23-Apr-23	138,731	-	3,056	-	841	15,244,858	14,609,937	10,433,215	87.1
	Indonesia	02 Mar 20	26-Apr-23	6,765,975	248	161,190	-	2,490	203,657,535	172,693,321	67,952,274	62.7
	Lao PDR	24 Mar 20	25-Apr-23	218,070	-	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	25-Apr-23	634,471	-	19,490	-	1,173	34,777,314	27,545,329	2,227,351	50.8
	Philippines	30 Jan 20	25-Apr-23	4,089,709	-	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	25-Apr-23	11,549,186	-	43,188	-	11,950	90,450,881	85,848,363	57,452,750	87.4
ASEAN COUNTRIES				35,820,028	248	367,036	-	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.

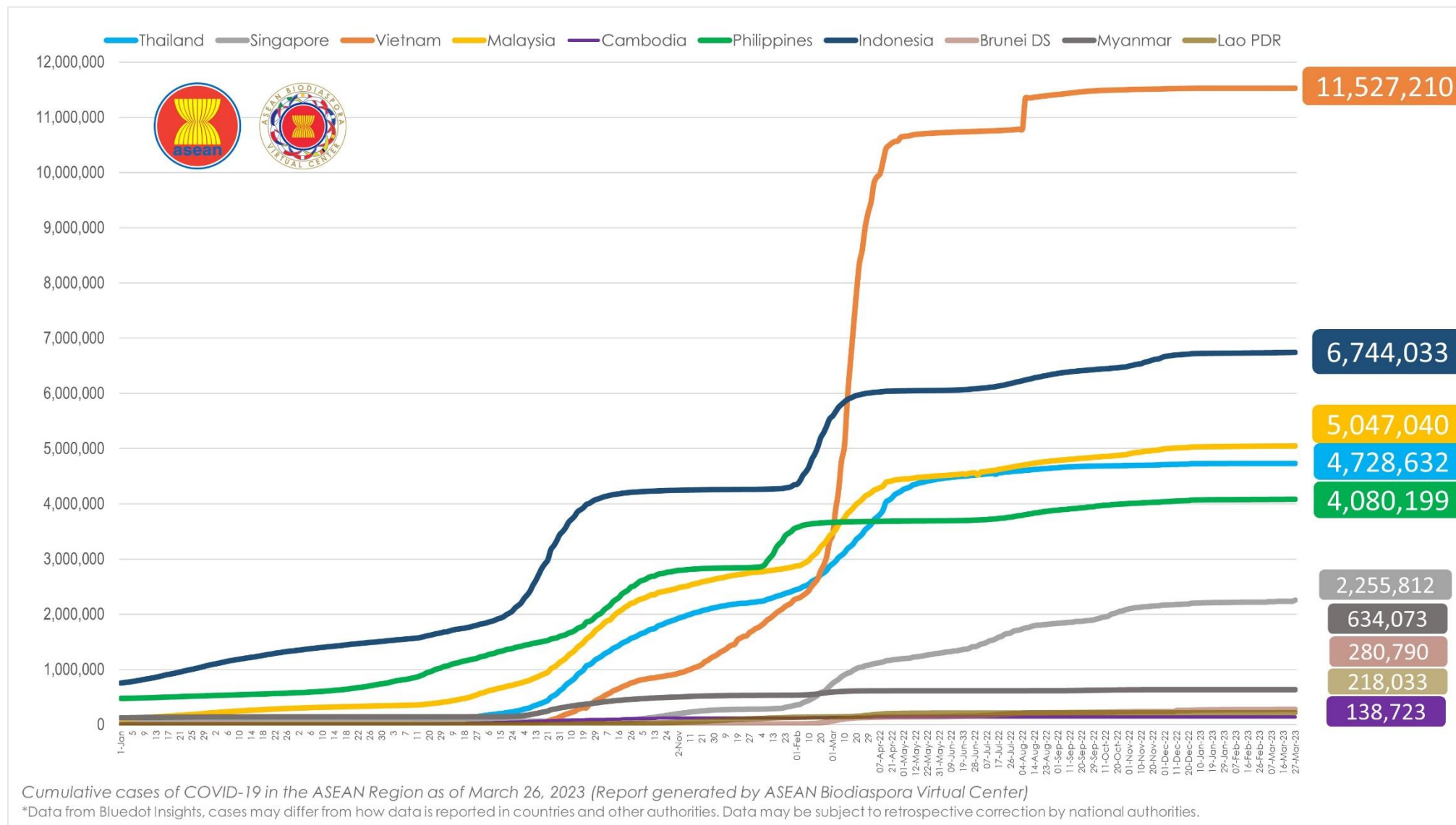
REGION	TOTAL CONFIRMED CASES	NEW CASES	TOTAL DEATHS	NEW DEATHS
ASIA	194,675,364	16,383	1,203,724	15
AFRICA	12,817,960	-	258,714	
AMERICAS	194,627,674	-	2,981,081	-
EUROPE	248,705,627	-	2,050,063	-
TOTAL	650,826,625	16,383	6,493,582	15

**Data Reference: [Worldometer](https://www.worldometers.info/coronavirus/)



COVID-19 Epi curve among ASEAN Countries:

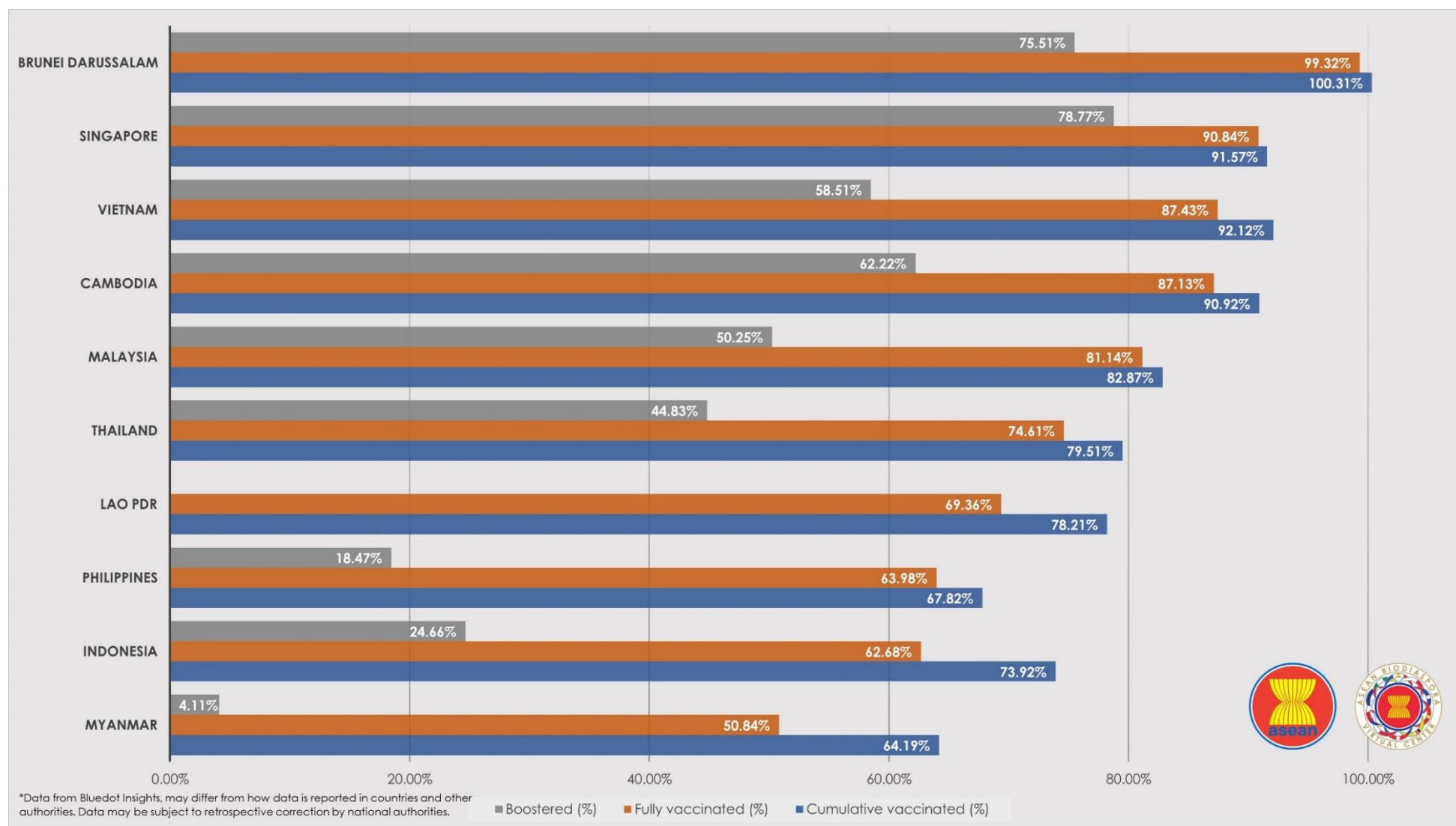
From January 1, 2021 to April 26, 2023





ASEAN COVID-19 Vaccination Status

as of 09 March 2023

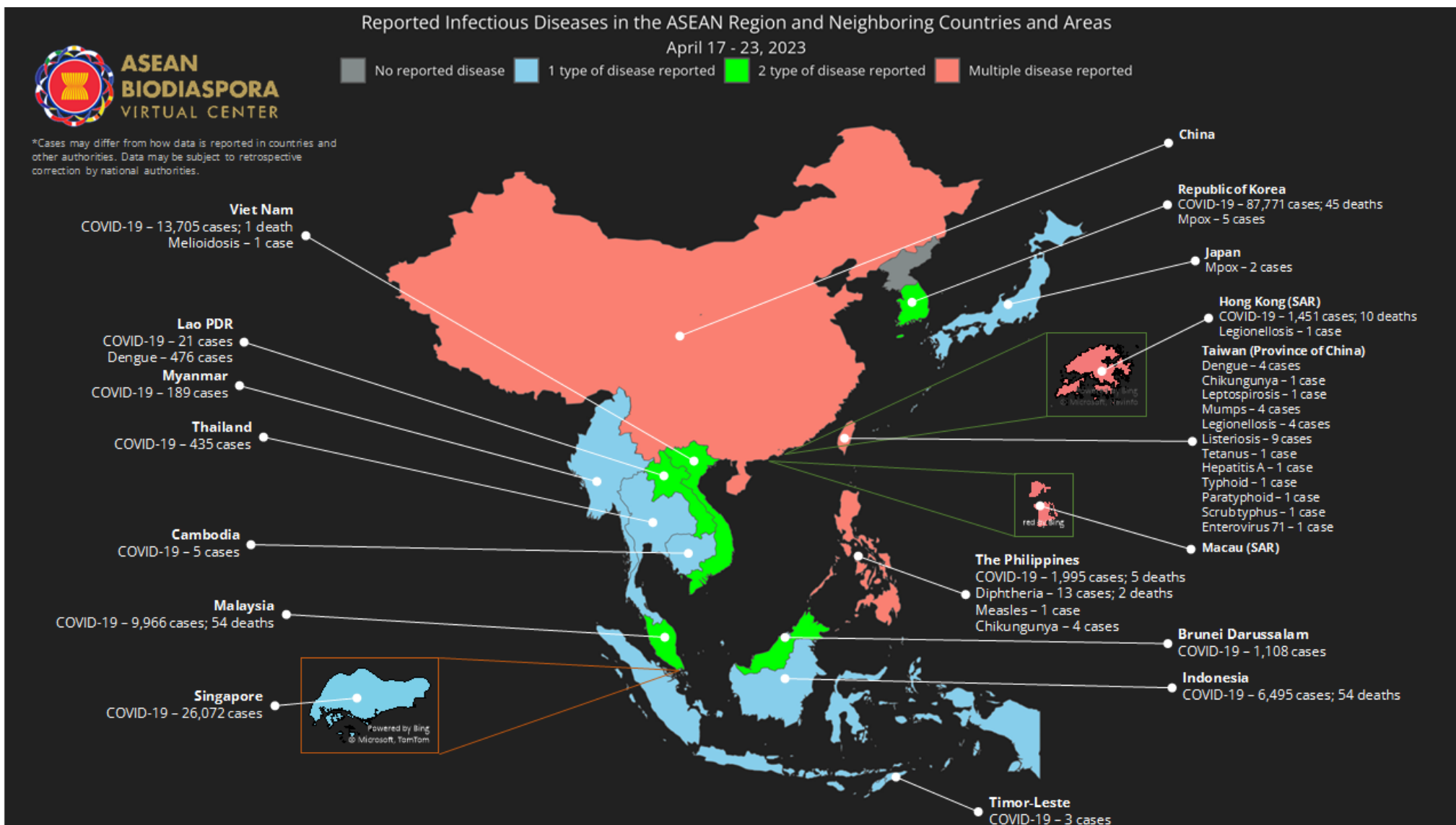


*Last update in COVID-19 vaccination status in ASEAN was on March 9, 2023.



Reported Infectious Diseases in ASEAN Region and Neighboring Countries

From April 17-23, 2023





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

April 17-23, 2023

Infectious Disease Global Updates

Unknown Illness

- **Guinea:** In Guinea, about 50 fishermen have been hospitalized with an unknown illness that has left them with multiple blisters on their faces and limbs.⁶ It is reported by Lenta.ru with reference to Agence France-Presse (AFP).⁶ "We have encountered a strange phenomenon. The government has formed an interministerial crisis commission, which includes representatives of several ministries responsible for environmental protection, health, transport and maritime affairs," said the country's Minister of Health and Public Hygiene, Mamadou Pate Diallo.⁶ According to him, water samples from the area where the first cases of infection were detected have already been sent for examination not only to national, but also to international laboratories.⁶ [\[Full article\]](#)

Infectious Disease in ASEAN region and Neighboring Countries Updates

Diphtheria

- **Philippines:** In an update on the diphtheria situation in the Philippines this year, The Philippines Department of Health reports a 1,000% increase in cases year to date.⁸ From January 1 to March 25, health officials report 33 diphtheria cases, this compares to the three cases reported during the same period in 2022.⁸ Eight fatalities have been reported for a case fatality rate of 24%.⁸ No deaths were reported due to diphtheria at this time in 2022.⁸ 36% of the cases (12) and half the deaths have been reported from the Metro Manila region.⁸ The Calabarzon region has seen the second most cases with seven.⁷ [\[Full article\]](#)

Chikungunya

- **Philippines:** Chikungunya cases in the Philippines have increased by 329% in the first quarter of the year compared with the same period last year, the Department of Health (DOH) reported before the weekend.⁹ Based on the latest Disease Surveillance Report of the DOH, there were 30 chikungunya cases reported from Jan. 1 to March 25, 2023, while only seven cases of the mosquito-borne disease were recorded in the same period in 2022.⁹ The report showed that the four top regions with chikungunya cases are Davao region with 17 cases; Northern Mindanao with five; and Ilocos and Western Visayas, each with two.⁹ [\[Full article\]](#)

Legionellosis

- **Hongkong:** The Centre for Health Protection (CHP) of the Department of Health is today (April 17) investigating a case of Legionnaires' disease (LD) in Hong Kong Sanatorium & Hospital (HKSH).¹⁰ The male patient, aged 74 with underlying illnesses, was admitted to HKSH on March 22.¹⁰ He developed fever, a drop in blood pressure and oxygen desaturation on April 12.¹⁰ His clinical diagnosis was septic shock and pneumonia.¹⁰ He is currently in stable condition. His sputum specimen tested positive for Legionella species upon laboratory testing.¹⁰ Initial enquiries revealed that the patient had no travel history during the incubation period.¹⁰ "Epidemiological investigations with HKSH are ongoing to identify potential sources of infection, high-risk exposure and clusters, if any.¹⁰ Relevant water samples and environmental swabs will be collected from potential



sources for laboratory testing," a spokesman for the CHP said.¹⁰ Tracing of contacts including staff and in-patients in the relevant ward is ongoing and those identified will be put under medical surveillance.¹⁰ The CHP has provided health advice against LD to staff and in-patients, including those with weakened immunity who should use sterile or boiled water for drinking, tooth brushing and mouth rinsing.¹⁰ The water supply system of the subject floor will be disinfected urgently.¹⁰ An investigation is ongoing.¹⁰ [\[Full article\]](#)

Melioidosis

- Vietnam:** Health authorities in Dak Nong Province, located in Vietnam's Central Highlands, said on April 20 that they had detected the first Whitmore's disease case in a 65-year-old man.⁷ The patient is T.V.S., a 65-year-old resident of Dak Nong's Cu Jut District, who has had a lipoma, or a benign tumor made of fat tissue, on the head for a year, according to the *Vietnam News Agency*.⁷ He has recently experienced pain and discomfort in the tumor area before having it examined at Thien Hanh General Hospital in neighboring Dak Lak Province on April 14.⁷ There, he was diagnosed with osteomyelitis, abscesses under the scalp, and type-2 diabetes.⁷ On April 17, S. had samples taken for testing, with the results released on April 19 showing that he was positive for the *Burkholderia pseudomallei* bacterium, which causes Whitmore's disease, also known as melioidosis, in humans and animals.⁷ Currently, S. has regained consciousness, has good communication and stable health, and has been transferred to the General Hospital of the Central Highlands in Dak Lak for continued monitoring and treatment.⁷ Health authorities in Dak Nong have strengthened medical vigilance following the detection of S.'s infection, also the first case in the province, according to Huynh Thanh Huynh, deputy director of the Dak Nong Department of Health.⁷ Recent studies show that the disease is recorded in many northern and southern provinces.⁷ The mortality rate from the disease is quite high, over 40%, especially in patients with septic shock and severe pneumonia.⁷ The disease can spread via direct contact of patients with contaminated soil and water, especially through scratches on the skin.⁷ Therefore, experts advise people to wear boots when working in the fields and avoid stagnant water.⁷ In areas where the disease is present, people should be vigilant as the symptoms can be mistaken for tuberculosis and pneumonia.⁷ [\[Full article\]](#)

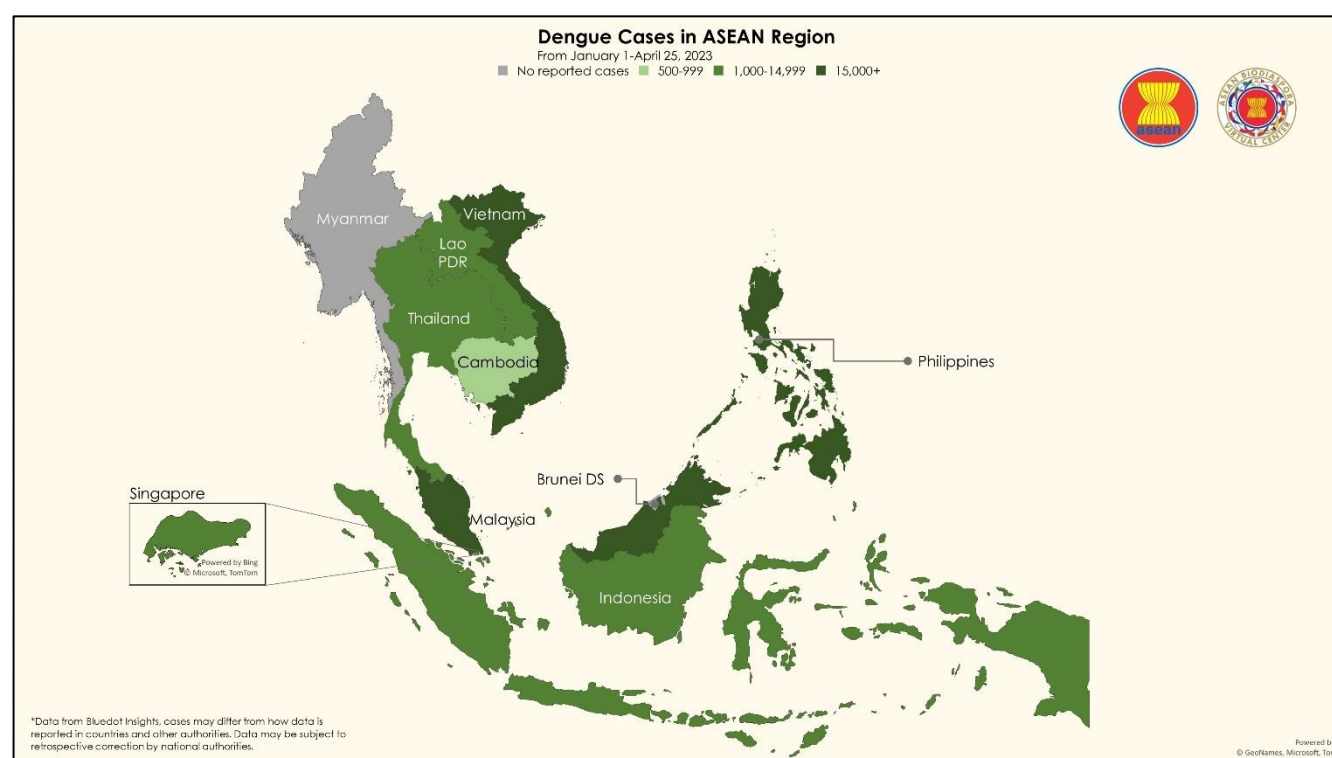
Enterovirus 71

- Taiwan:** After the beginning of spring, the temperature in Taiwan has gradually returned to temperature, officially entering the epidemic period of enterovirus.¹¹ In addition to the lifting of the ban on masks, a new case of severe enterovirus has been added recently.¹¹ So far this year, 4 cases of mild enterovirus 71 have been detected in Taoyuan City.¹¹ According to statistics, the number of visits to the emergency department of enterovirus health insurance in Taoyuan City in the past 3 weeks was 530,621 and 626 respectively, showing a rising trend.¹¹ The Health Bureau stated that if children under the age of 5 are infected with enterovirus 71 or D68, they may invade the nervous system, leading to the risk of severe illness, reminding the public that even though the epidemic is unblocked, they should still be vigilant and implement frequent hand washing, and do not go to work or class when they are sick to prevent enterovirus.¹¹ [\[Full article\]](#)



Dengue Cases in ASEAN Region

From January 1 to April 25, 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	0	24	0.62%
Lao PDR	1,146	476	0	0.00%
Malaysia	35,202	6,059	22	0.06%
Myanmar	-	-	-	-
Philippines	27,670	0	55	0.20%
Singapore	2,724	750	0	0.00%
Thailand	3,855	0	1	0.03%
Vietnam	20,537	0	0	0.00%
Total	95,741	7,285	104	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 **7,285** new dengue cases in Lao PDR, Malaysia, and Singapore since previous report. The region reported **95,741** total cases and **104** total deaths in 2023 with **0.11%** CFR.



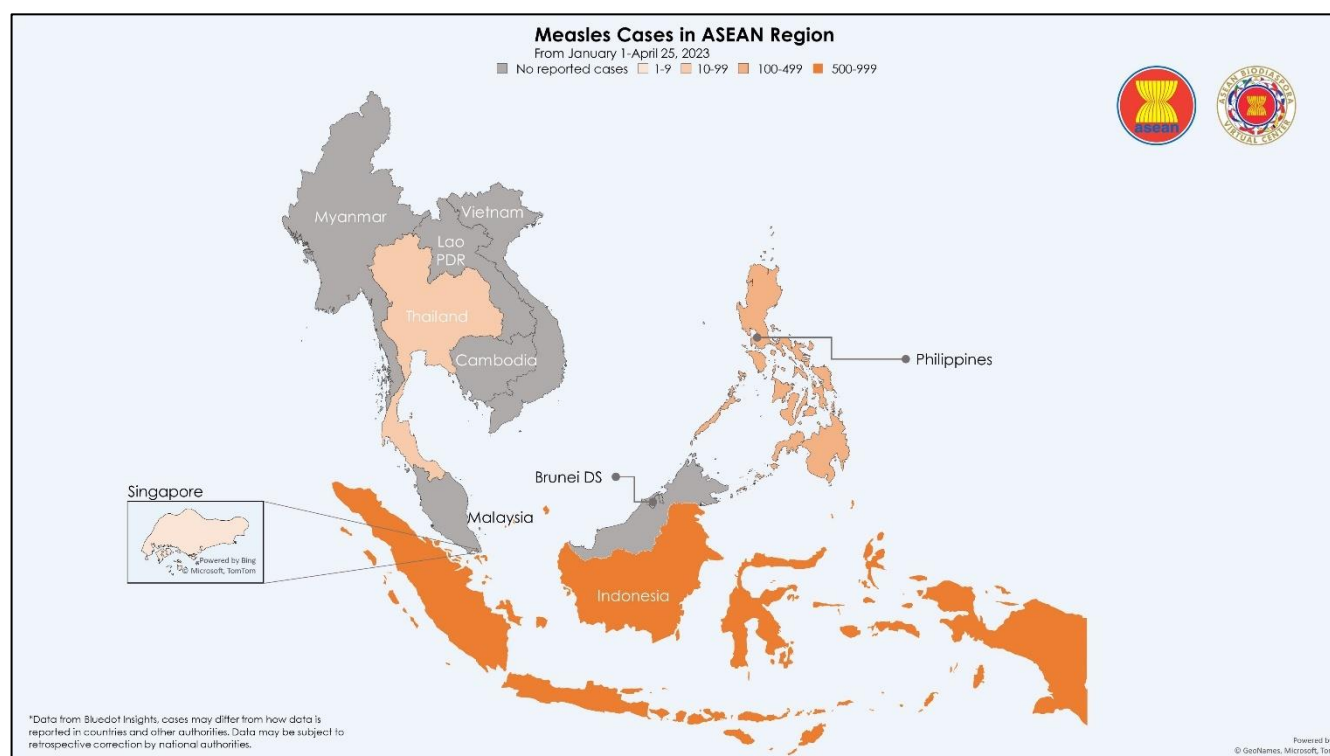
Dengue in ASEAN Region

- Lao PDR:** The cases of dengue fever in Laos have risen to 1,146 since January 2023, according to data released by the Lao Ministry of Health.³ A report issued by the Center of Information and Education for Health under the Lao Ministry of Health on Thursday (April 20) said the country reported 43 new cases of dengue fever, bringing the total number of infections to 1,146.³ The highest number of dengue patients was reported in Oudomxay province at 166, while 149 cases were detected in the Lao capital Vientiane, and 143 cases were recorded in Khammuan province.³ The Lao Ministry of Health urged authorities and people countrywide to remain vigilant and help control the spread of dengue fever.³ [\[Full article\]](#)
- Malaysia:** A total of 250 dengue cases were reported each week in the first and second weeks of January, according to State Health Director Datuk Dr. Rose Nani Mudin.⁴ But as of the third epidemiological week, cases have begun to trend downward, she said in a statement.⁴ The 15th epidemiological week which ended April 15, recorded a total of 152 dengue cases compared to 165 cases in the previous week, showing a decrease by 13 cases (8.6%).⁴ The cumulative number of dengue fever cases from Jan to April 15 is 3,185.⁴ From the figure, five deaths due to dengue fever complications were reported.⁴ The districts that recorded deaths were Sandakan (two cases), Penampang (one case), Kudat (one case), and Kunak (one case).⁴ The second dengue death case in Sandakan was reported on April 6 as a result of dengue hemorrhagic fever complications, involving a four-year-old local girl from Sri Taman, Sandakan.⁴ While one dengue death in Penampang involved a 40-year-old woman from Lawas, Sarawak.⁴ The woman died on Dec. 6, 2022 in Sarawak due to dengue fever with complications of heart inflammation.⁴ Since the woman had a history of the movement to Taman Donggongon, in Penampang during the incubation period in 2022, the Ministry of Health suggests that the death case be registered in Penampang this year.⁴ These two cases of dengue death occurred in a double-storey terrace-type housing estate and have no epidemiological connection to each other.⁴ Thus, the Sabah Health Department urges all levels of society to spend at least 10 minutes doing activities to find and destroy Aedes mosquito breeding places inside and outside their respective homes and practice the use of aerosol sprays in the early morning and late afternoon.⁴ If there is a family member or friend who has symptoms of dengue fever such as high fever, headache, pain behind the eyes, joint/muscle pain, seek treatment immediately.⁴ Early treatment can save lives.⁴ No Aedes, no Dengue, Chikungunya and Zika, she said.⁴ [\[Full article\]](#)



Measles Cases in ASEAN Region

From January 1 to April 25, 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	0	17	1.80%
Lao PDR	-	-	-	-
Malaysia	-	-	-	-
Myanmar	-	-	-	-
Philippines	308	100	-	0.00%
Singapore	4	1	-	0.00%
Thailand	73	73	-	0.00%
Vietnam	-	-	-	-
Total	1,332	174	17	1.28%

*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 **174** new measles cases in the Philippines, Singapore, and Thailand since the previous report. The region reported **1,332** total cases and **17** total deaths in 2023 with **1.28%** CFR.



Measles in ASEAN Region

- **Philippines:** Davao City records one confirmed case of measles last February, according to the City Health Office (CHO) on Thursday, April 20.⁵ Dr. Julinda Acosta, head of the Technical Division of CHO, said during the i-Speak media forum that the confirmed case is of a six-year-old child from District C, Boulevard area.⁵ She said the child has already recovered but they may have gotten the disease in their own community since there was no history of travel, the child was fully immunized.⁵ The CHO also noted suspected cases of measles in some barangays in Davao City however further details are yet to be verified.⁵ "We are advising our district health staff to monitor if there are cases of measles and to report them to our office. But with our one case now, so far it did not spread yet unlike before when we had an outbreak," Acosta said.⁵ Acosta said the last measles outbreak in Davao City was in 2018 that originated from a single confirmed case and in 2019, poliovirus was also detected at Davao River but there were no confirmed cases.⁵ In line with this, the CHO is conducting a Measles, Rubella, and Polio Supplemental Immunization Activity from May 2 to May 31 to increase the immunization coverage of Davao City.⁵ They specifically target 189,000 vaccinations for polio and 161,000 for measles.⁵ [\[Full article\]](#)

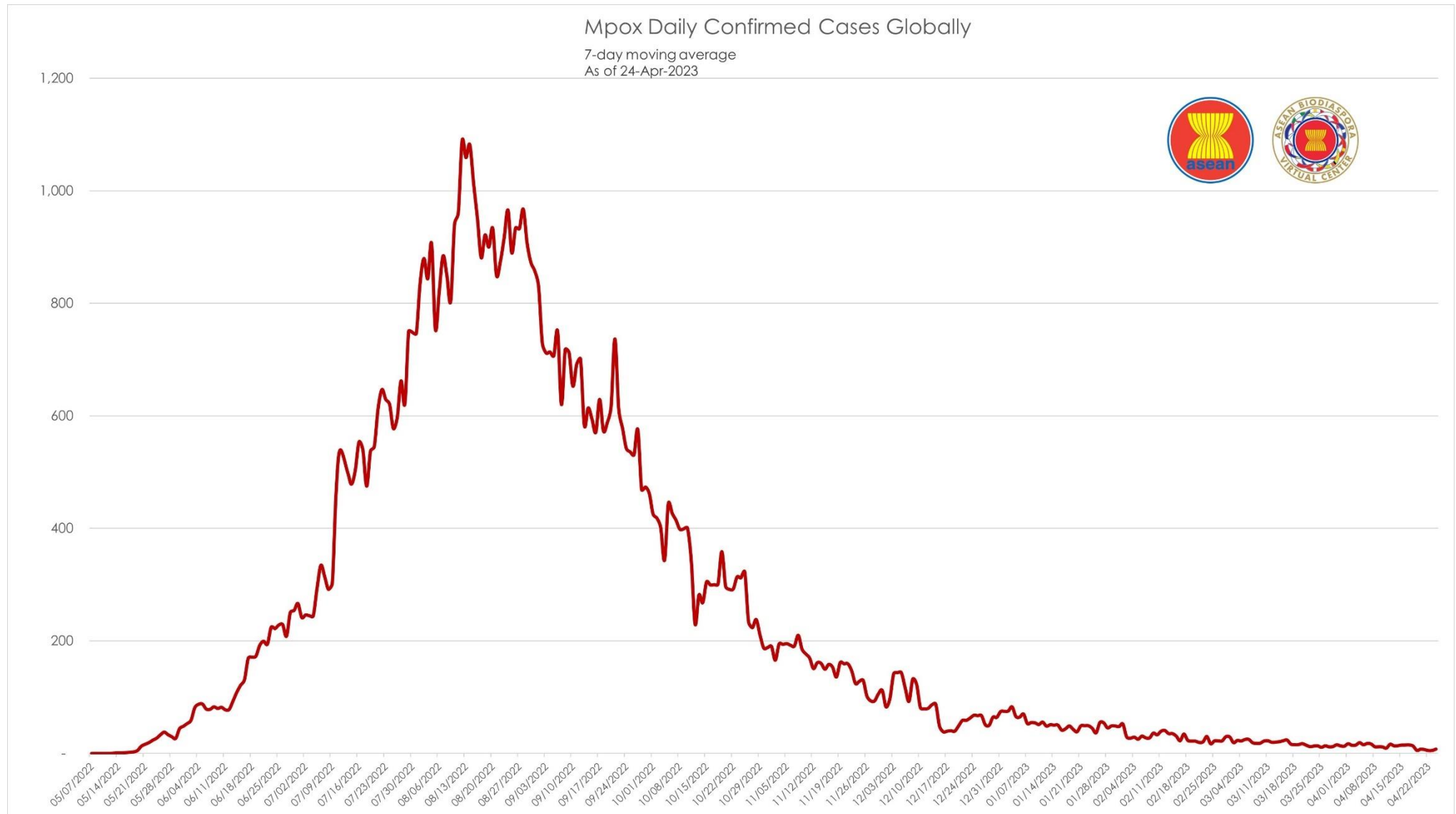
as of April 24, 2023





Mpox Daily Trend Globally

as of April 24, 2023





Mpox: Highlights and Situation Overview

- As of 24 April 2023 (1PM, GMT+7), worldwide, there were **87,089** confirmed cases, including **120** deaths. Globally, Case Fatality Rate (CFR) was **0.14%**.
- 49 confirmed cases** in the ASEAN region, with CFR of **0%**.
- 87,040 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	1	-	0.00%
Thailand	19	-	-	0.00%
Vietnam	2	-	-	0.00%
ASEAN Total	49	1	-	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	24	-	0.00%
New Caledonia	1	-	-	0.00%
New Zealand	41	-	-	0.00%
People's Republic of China*	40	15	-	0.00%
Republic of Korea	30	24	-	0.00%
Sri Lanka	2	-	-	0.00%
Asia-Pacific Total	40	63	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	30,140	2	44	0.15%
Brazil	10,900	-	15	0.14%
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	1,497	15	19	1.27%
AMERICAS	59,197	3	94	0.16%
ASEAN	49	1	-	0.00%
ASIA PACIFIC	400	63	1	0.30%
EUROPE	25,610	7	6	0.02%
MIDDLE EAST	321	-	-	0.00%
TOTAL	87,089	89	120	0.14%

Global Update

- South Korea:** The Korea Disease Control and Prevention Agency (KDCA) has confirmed a recent cluster of mpox cases in the city of Seoul and neighboring areas. The country's first five mpox cases were detected between March-June 2022 and were all among individuals who had a recent history of travel to countries where outbreaks of mpox had been declared. More recently, at least 13 cases have been detected over the last month and are the first known locally-acquired cases of mpox in South Korea. According to official investigations, the affected population is among those who identify as men who have sex with men (MSM), consistent with the global outbreak occurring outside of the endemic region. KDCA has confirmed that all new cases have been linked to transmission via close contact, including sexual contact, with persons who may have been exposed in nightclub settings. KDCA is working to enhance mpox vaccination in high-risk populations in response to the recent locally-transmitted infections. [BlueDot Insights Report]



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