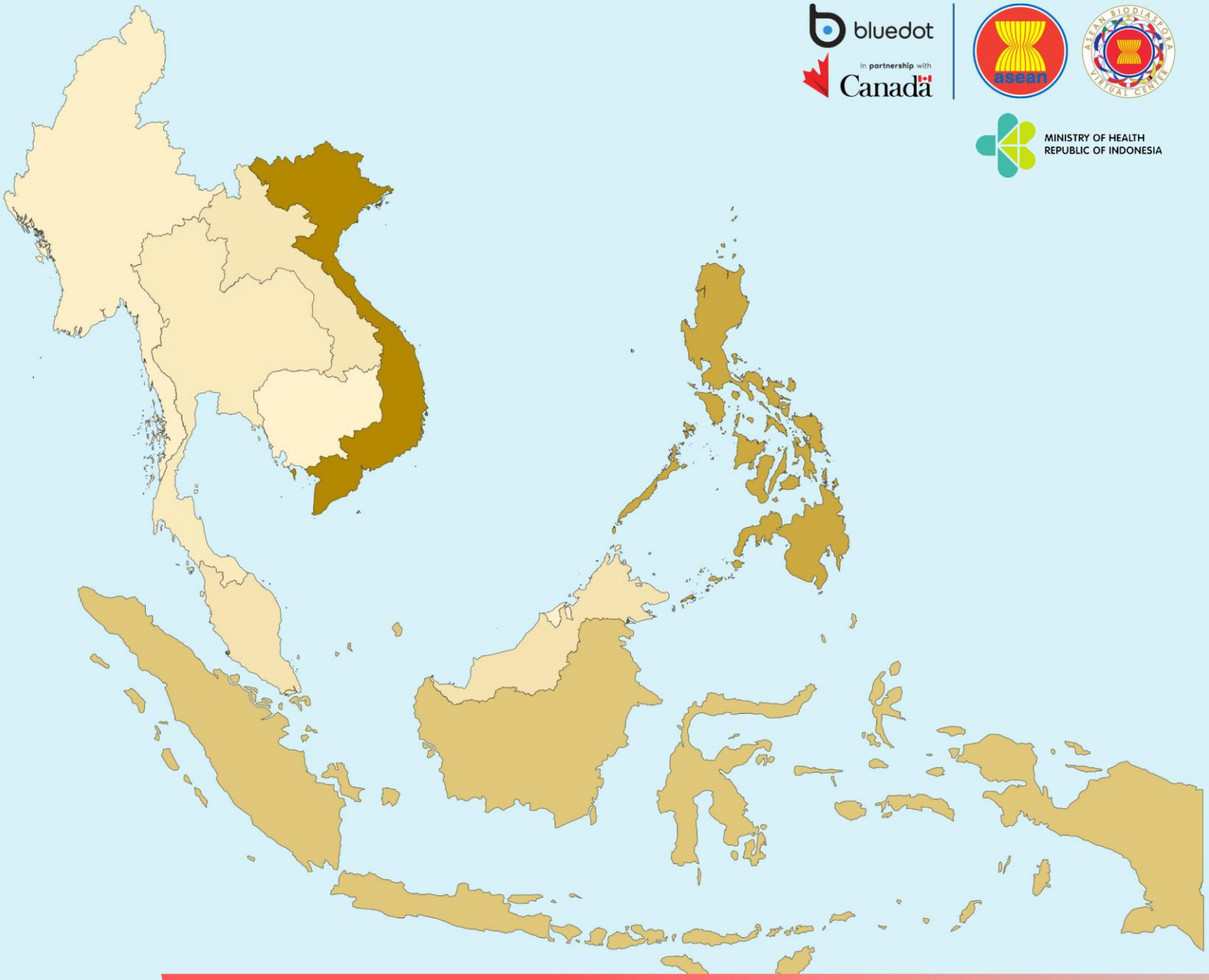

COVID-19, Mpox, and Other Infectious Diseases

Situational Report in the ASEAN Region

ASEAN BioDiaspora Virtual Center (ABVC)

February 8, 2023 | Issue No. 445

ASSOCIATION OF SOUTHEAST ASIAN NATIONS

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COVID-19: Highlights and Situation Overview

Global Update

- **Worldwide**, there have been over 662 million cases and over 6 million deaths attributed to COVID-19.
- **Australia**'s Department of Health and Aged Care said that it will roll out a fifth dose of COVID-19 vaccine later this month to all citizens aged 18 and above who have not contracted COVID-19 or been vaccinated in the past six months. The Health Minister said that the decision expands eligibility for the booster shot to include about 14 million people, who will be offered Omicron variant-specific vaccines from February 20. Currently, only severely immuno-compromised individuals have been recommended to take a fifth dose.

Regional Update

- The **Philippines**' Department of Health (DOH) has confirmed its first case of the omicron subvariant XBB.1.5 on February 7 (Tuesday). According to the latest biosurveillance report, out of 1,078 samples sequenced by health authorities from January 30 to February 3, 196 were classified as XBB, including 1 case of XBB.1.5. According to the report, XBB cases were found in all the regions of the country except Region 8 and the Bangsamoro. The country has also detected its first cases of the new omicron variant CH.1.1. DOH reminded everyone to comply with minimum public health standards, get vaccinated and to know the individual risk assessment in all activities. It also clarified that even with the detection of new variants and subvariants, the number of COVID-19 cases in hospitals, as well as severe and critical cases remain manageable.

Research Update (Published and peer-reviewed studies)

- Multimorbidity is a prevalent risk factor for COVID-19–related complications and death.[3] This retrospective cohort study, ***Booster vaccination with inactivated whole virus or mRNA vaccines and COVID-19–related deaths among people with multimorbidity: a cohort study***, determined the association of homologous booster (third) vaccination using Pfizer-BioNTech or Sinovac with COVID-19–related deaths among people with multimorbidity during the initial Omicron wave of the COVID-19 pandemic.[3] There were 120,724 Pfizer-BioNTech recipients (including 87,289 who received a booster), followed for a median of 34 days and 127,318 Sinovac recipients (including 94977 who received a booster), followed for a median of 38 days.[3] Among Pfizer-BioNTech recipients, booster vaccinated people had fewer COVID-19– related deaths than those who received 2 doses (5 v. 34, incidence rate 1.3 v. 23.4 per million person-days, weighted incidence rate ratio [IRR] 0.05, 95% confidence interval [CI] 0.02–0.16).[3] Similarly, among recipients of Sinovac booster vaccination compared with those who received only 2 doses (26 v. 88, incidence rate 5.3 v. 53.1 per million person-days, weighted IRR 0.08, 95% CI 0.05–0.12).[3] Among people with multimorbidity, booster vaccination was associated with reductions of more than 90% in COVID-19–related mortality rates compared with only 2 doses.[3] These results highlight the crucial role of booster vaccination for protecting vulnerable populations as the COVID-19 pandemic continues to evolve.[3] [Full text]
- There are very few modifiable risk factors for post–COVID-19 condition (PCC).[4] This prospective cohort study, ***Adherence to Healthy Lifestyle Prior to Infection and Risk of Post–COVID-19 Condition***, investigated the association between healthy lifestyle factors prior to confirmed SARS-CoV-2 infection and risk of PCC (at least 4 weeks of symptoms).[4] Participants included 32,249 women in the Nurses' Health Study II cohort who reported pre-infection lifestyle habits in 2015 and 2017.[4] Healthy lifestyle factors included healthy

body mass index (BMI, 18.5-24.9; calculated as weight in kilograms divided by height in meters squared), never smoking, at least 150 minutes per week of moderate to vigorous physical activity, moderate alcohol intake (5 to 15 g/d), high diet quality (upper 40% of Alternate Healthy Eating Index–2010 score), and adequate sleep (7 to 9 h/d).[4] The relative risk (RR) of PCC in association with the number of healthy lifestyle factors (0 to 6) was estimated using Poisson regression and adjusting for demographic factors and comorbidities.[4] A total of 1,981 women with a SARS-CoV-2 infection over 19 months of follow-up were documented. Mean age was 64.7 years (SD, 4.6; range, 55-75); 97.4% (n = 1929) were White; and 42.8% (n = 848) were active health care workers.[4] Among these, 871 (44.0%) developed PCC.[4] Healthy lifestyle was associated with lower risk of PCC in a dose-dependent manner.[4] Compared with women without any healthy lifestyle factors, those with 5 to 6 had 49% lower risk (RR, 0.51; 95% CI, 0.33-0.78) of PCC.[4] In a model mutually adjusted for all lifestyle factors, BMI and sleep were independently associated with risk of PCC (BMI, 18.5-24.9 vs others, RR, 0.85; 95% CI, 0.73-1.00, p = .046; sleep, 7-9 h/d vs others, RR, 0.83; 95% CI, 0.72-0.95, P = .008).[4] If these associations were causal, 36.0% of PCC cases would have been prevented if all participants had 5 to 6 healthy lifestyle factors (population attributable risk percentage, 36.0%; 95% CI, 14.1%-52.7%).[4] Results were comparable when PCC was defined as symptoms of at least 2-month duration or having ongoing symptoms at the time of PCC assessment.[4] In this prospective cohort study, pre-infection healthy lifestyle was associated with a substantially lower risk of PCC.[4] [Full text]

- Mass gatherings provide conditions for the transmission of infectious diseases and pose complex challenges to public health. Faced with the COVID-19 pandemic, governments and health experts called for suspension of gatherings in order to reduce social contact via which virus is transmitted.[5] However, few studies have investigated the contribution of mass gatherings to COVID-19 transmission in local communities.[5] This study, ***The impact of mass gatherings on the local transmission of COVID-19 and the implications for social distancing policies: Evidence from Hong Kong,*** addressed the question of whether mass gatherings, particularly in the form of public gatherings and demonstrations, contributed to the third wave of local outbreak of COVID-19 in Hong Kong.[5] With an aggregated dataset of epidemiological, city-level meteorological and socioeconomic data, a Synthetic Control Method (SCM) was used for constructing a 'synthetic Hong Kong' from over 200 Chinese cities.[5] This counterfactual control unit was used to simulate COVID-19 infection patterns (i.e., the number of total cases and daily new cases) in the absence of mass gatherings.[5] Comparing the hypothetical trends and the actual ones, results showed that the infection rate observed in Hong Kong is substantially higher than that in the counterfactual control unit (2.63% vs. 0.07%).[5] As estimated, mass gatherings increased the number of new infections by 62 cases (or 87.58% of total new cases) over the 10–day period and by 737 cases (or 97.23%) over the 30-day period.[5] These findings suggest the necessity of tightening social distancing policies, especially the prohibition on group gathering regulation (POGGR), to prevent and control COVID-19 outbreaks.[5] [Full text]

Cases and Deaths as of 08 February 2023

- As of 08 February 2023 (1PM, GMT+7), worldwide, there were **662,377,485** confirmed cases, including **6,758,711** deaths. Globally, Case Fatality Rate (CFR) was **1.2%.**
- **35,580,502 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	07-Feb-23	276,067	-	225	-	63,715	450,404	445,929	338,987	99.32
	Cambodia	27 Jan 20	07-Feb-23	138,698	-	3,056	-	841	15,244,858	14,609,937	10,433,215	87.13
	Indonesia	02 Mar 20	07-Feb-23	6,731,696	392	160,847	9	2,487	203,657,535	172,693,321	67,952,274	62.68
	Lao PDR	24 Mar 20	07-Feb-23	217,990	-	758	-	3,041	5,888,649	5,222,417		69.36
	Malaysia	25 Jan 20	07-Feb-23	5,038,354	184	36,946	2	15,770	28,125,245	27,536,657	17,056,957	81.14
	Myanmar	23 Mar 20	07-Feb-23	633,842	-	19,490	-	1,173	34,777,314	27,545,329	2,227,351	50.84
	Philippines	30 Jan 20	07-Feb-23	4,073,980	129	65,875	10	3,768	78,369,243	73,937,435	21,341,197	63.98
	Singapore	23 Jan 20	07-Feb-23	2,216,048	251	1,722	-	38,854	5,161,990	5,120,768	4,440,289	90.84
	Thailand	13 Jan 20	07-Feb-23	4,727,236	-	33,882	-	6,790	57,005,497	53,486,086	32,143,431	74.6
	Vietnam	23 Jan 20	07-Feb-23	11,526,591	14	43,186	-	11,949	90,450,881	85,848,363	57,452,750	87.43
			ASEAN COUNTRIES	**35,580,502**	**970**	**365,987**	**21**	**148,387**	**519,131,616**	**466,446,242**	**213,386,451**	

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

COVID-19 cases in Asia-Pacific 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-PACIFIC REGION	Afghanistan	24-Feb-20	07-Feb-23	208,683	39	7,896	-	549	11,606,705	10,894,509		26.49
	Australia	25-Jan-20	01-Feb-23	11,302,744	-	18,615	-	44,065	22,236,871	21,655,312	19,762,423	82.73
	Bangladesh	08-Mar-20	06-Feb-23	2,037,622	-	29,443	-	1,250	150,629,515	131,182,263	65,897,152	76.63
	Bhutan	05-Mar-20	07-Feb-23	62,608	3	21	-	8,205	699,116	677,669	634,641	86.61
	People's Republic of China*		07-Feb-23	13,095,307	23,667	35,589	0	80,339	1,339,608,531	1,304,575,996	214,031,616	89.7
	Cook Islands	17-Feb-22	06-Feb-23	7,020	-	2	-	32,822	15,084	14,715	10,209	86.4
	Fiji	18-Mar-20	03-Feb-23	68,848	-	883	-	7,736	711,686	640,712	170,632	68.91
	French Polynesia	12-Mar-20	04-Jan-23	77,957	-	649	-	27,913	190,765	186,059	112,237	60.75
	Guam	15-Mar-20	06-Feb-23	60,837	-	416	-	36,365	158,611	144,042		85.49
	India	30-Jan-20	07-Feb-23	44,683,543	89	530,745	-	3,270	1,027,279,394	951,464,506	224,093,416	67.14

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	Japan	16-Jan-20	19-Oct-22	21,858,528	-	46,014	-	17,312	104,612,252	103,222,040	169,610,887	83.28
	Kiribati	25-Jan-22	31-Jan-23	5,008	-	18	-	4,258	96,184	73,888	23,419	56.3
	Maldives	07-Mar-20	07-Feb-23	185,721	6	311	-	34,979	399,151	385,081	167,187	73.52
	Marshall Islands	26-Oct-20	31-Jan-23	15,584	-	17	-	26,507	43,310	34,694		44.63
	Micronesia	11-Jan-21	21-Jan-23	22,676	-	58	-	19,924	84,729	71,253		69.64
	Mongolia	10-Mar-20	07-Feb-23	1,007,876	2	2,179	-	31,250	2,272,965	2,175,617	1,044,337	64.02
	Nepal	24-Jan-20	07-Feb-23	1,001,107	1	12,020	-	3,499	27,678,479	24,159,118	8,951,403	79.09
	New Caledonia	17-Mar-20	31-Jan-23	79,845	-	314	-	27,743	192,229	184,660	101,849	63.68
	New Zealand	28-Feb-20	07-Feb-23	2,191,215	8,860	3,806	25	44,564	4,300,097	4,138,926	3,523,903	79.82
	Niue	03-Sep-21	31-Jan-23	747	-	-	-	34,488	1,636	1,634	1,224	83.71
	Northern Mariana Islands	28-Mar-20	03-Feb-23	13,531	-	41	-	23,649	46,567	43,873		84.61
	Pakistan	26-Feb-20	07-Feb-23	1,576,411	13	30,640	-	728	154,665,740	131,368,973	49,551,181	55.71
	Palau	31-May-21	07-Feb-23	5,987	1	9	-	33,246	20,750	18,497		85.9
	Papua New Guinea	21-Mar-20	01-Feb-23	46,750	-	670	-	533	369,998	310,717	32,384	3.06
	Samoa	18-Nov-20	06-Feb-23	16,109	-	29	-	8,173	191,171	177,741	79,360	79.92
	Solomon Islands	03-Oct-20	24-Nov-22	24,575	-	153	-	3,669	343,821	254,352	27,783	35.12
	Republic of Korea**	20-Jan-20	07-Feb-23	30,279,932	16,671	33,630	16	58,558	44,867,046	44,448,105	41,325,954	85.78
	Sri Lanka	27-Jan-20	07-Feb-23	672,003	1	16,828	-	3,082	17,143,761	14,752,827	8,220,002	67.57
	Timor Leste	21-Mar-20	07-Feb-23	23,416	1	138	-	1,811	878,845	790,466	315,249	58.93
	Tonga	05-Nov-21	04-Feb-23	16,779	-	13	-	16,057	91,949	77,464	38,331	72.49
	Türkiye	10-Mar-20	12-Dec-22	17,041,315	-	101,487	-	20,426	57,941,051	53,176,961	41,425,329	62.31
	Vanuatu	11-Nov-20	06-Jan-23	12,014	-	14	-	4,006	144,824	131,697	16,996	40.31
	Wallis et Futuna	17-Oct-20	31-Dec-22	3,427	-	7	-	21,385	7,150	6,803	3,766	58.67
			ASIA PACIFIC	**147,705,725**	**49,354**	**872,655**	**41**	**682,362**	**2,969,529,983**	**2,801,441,170**	**849,172,870**	

*Includes cases from Hong Kong (SAR), Macau (SAR), and Taiwan (Province of China)
**Republic of Korea – South Korea

- **479,091,125 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	13,039,535	768	259,476	6	248,772	484,058,451	398,811,838	66,003,692
AMERICAS	192,547,281	1,047	2,954,416	14	1,240,172	835,447,892	731,893,384	495,237,137
EUROPE	250,803,406	13,181	2,066,538	59	2,106,933	569,620,774	541,040,894	383,756,585
MIDDLE EAST	22,701,036	321	239,639	2	215,936	144,725,560	130,012,483	60,203,464
TOTAL	**479,091,258**	**15,317**	**5,520,069**	**81**	**3,811,813**	**2,033,852,677**	**1,801,758,599**	**1,005,200,878**

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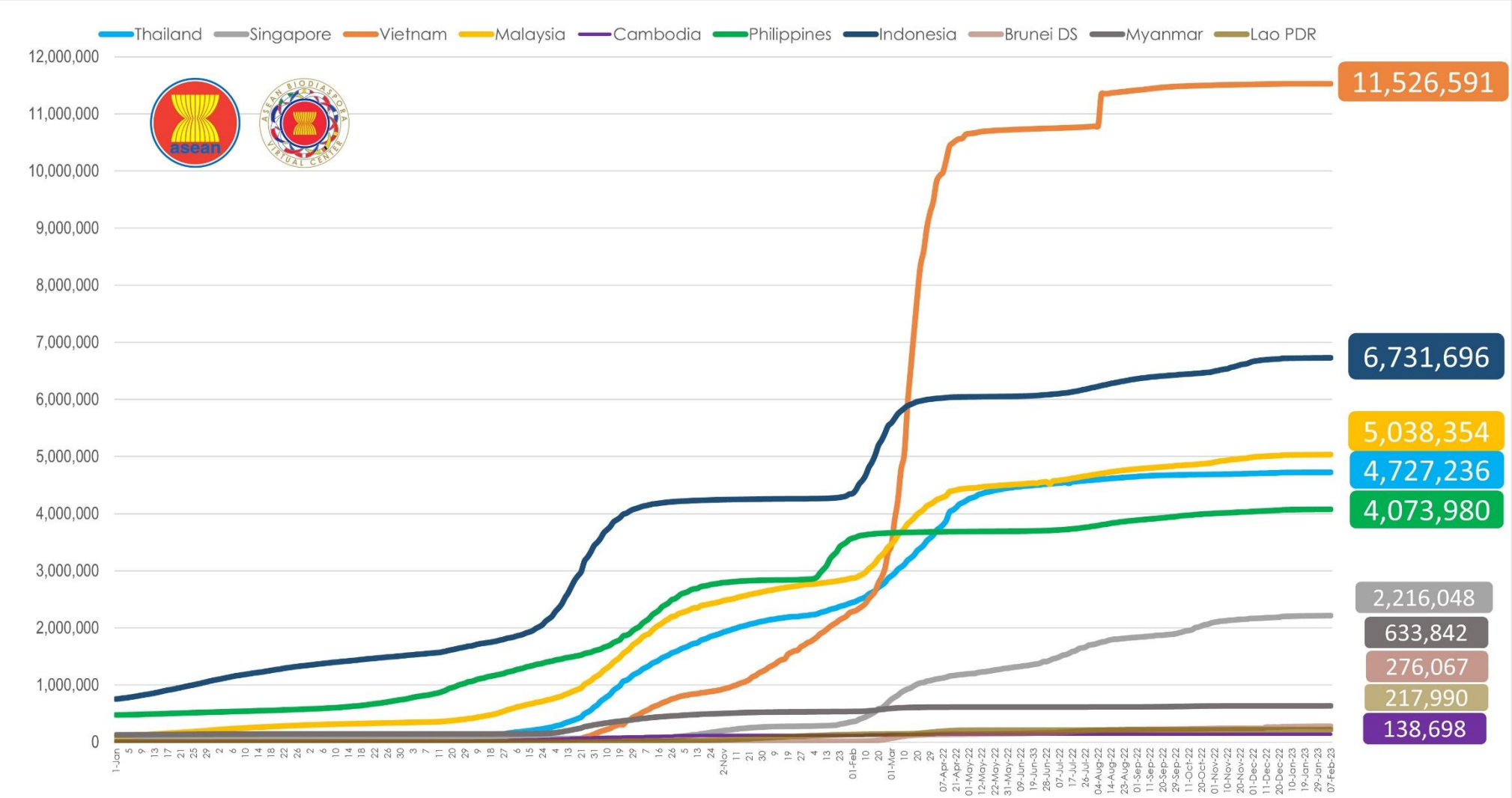
COVID-19 Epi curve among ASEAN Countries:

From January 1, 2021 to February 7, 2023



Cumulative cases of COVID-19 in the ASEAN Region as of February 7, 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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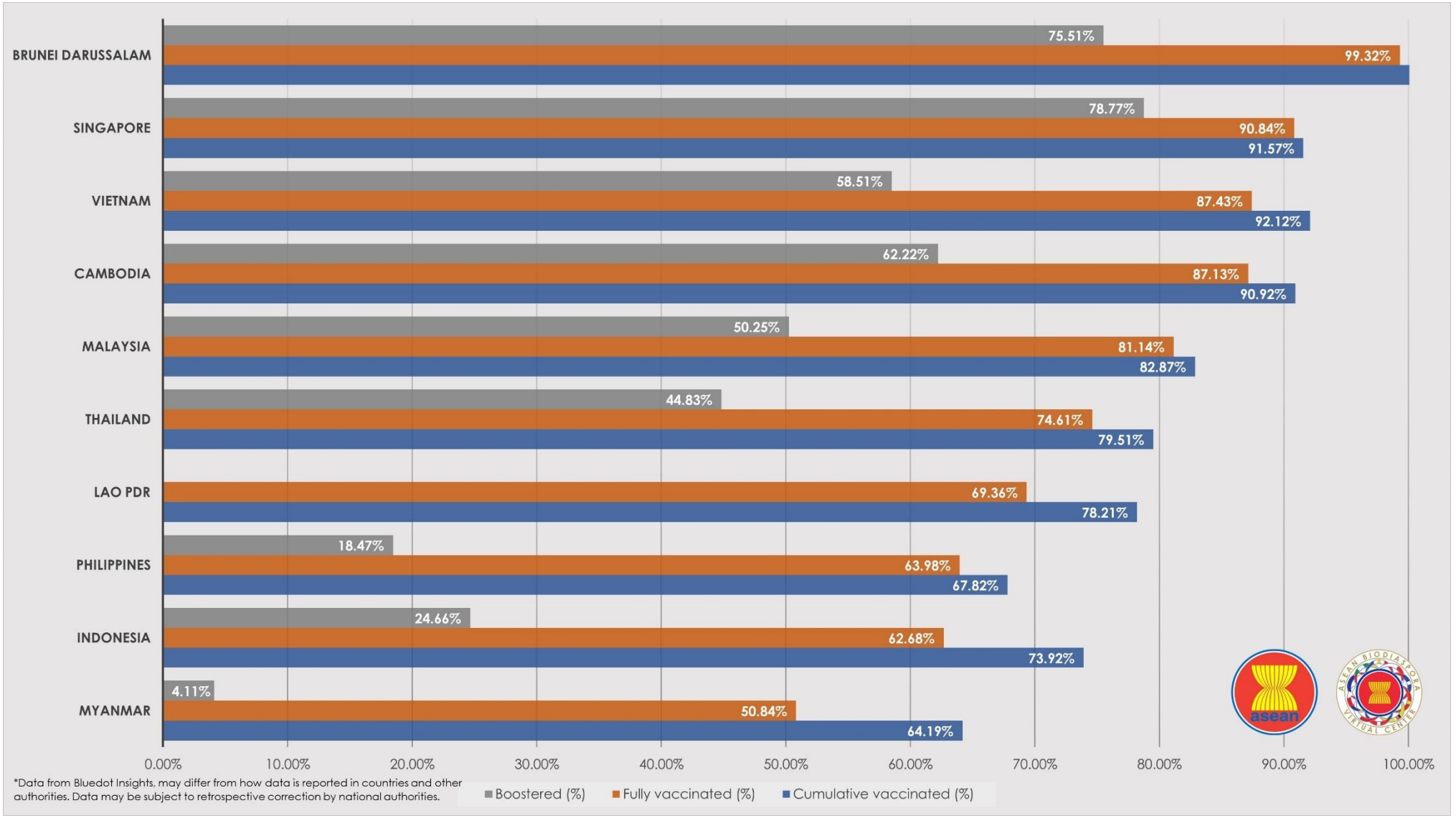
ASEAN COVID-19 Vaccination Status

as of 07 February 2023



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ASEAN COVID-19 Outlook Assessment

as of 05 February 2023

ASEAN MEMBER STATE	At least **65% of the total population has a level of immunity** to COVID-19; either recovered from COVID-19 or have been vaccinated with at least one dose of a COVID-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 / boosted	Population vaccinated/ day *(7-day average)*	Daily cases/ 100,000	Containment and health index score - *Oxford COVID-19 Government Response Tracker (OxCGRT)*
Brunei Darussalam	≥90.0/75.5	Unknown	27.93	31.0/100
Cambodia	≥90.0/62.2	Unknown	0.01	31.5/100
Indonesia	66.1/24.7	Unknown	0.08	54.2/100
Lao PDR	77.3/ND	Unknown	0.05	61.6/100
Malaysia	84.5/50.3	0%/day	0.85	51.8/100
Myanmar	52.1/4.1	Unknown	0.006	69.1/100
Philippines	71.6/18.5	Unknown	0.12	55.4/100
Singapore	≥90.0/78.8	Unknown	7.47	58.9/100
Thailand	77.7/44.8	Unknown	0.10	31.5/100
Vietnam	≥90.0/58.5	Unknown	0.01	43.5/100

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

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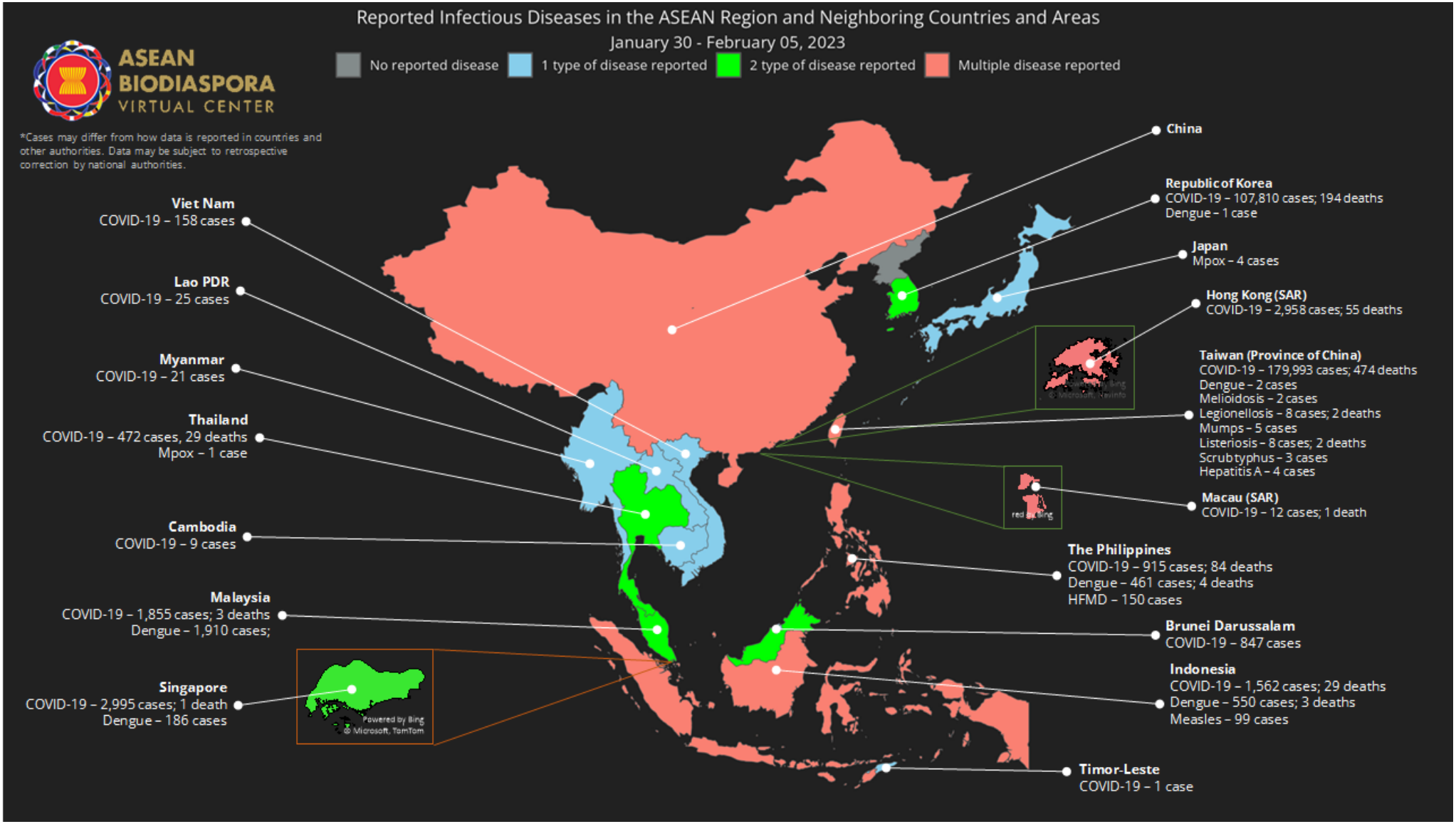
Infectious Diseases in ASEAN Region and Neighboring Countries

From January 30-February 5, 2023



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

January 30-February 5, 2023

Infectious Disease in ASEAN region and Neighboring Countries Updates

Measles

- **Indonesia:** The East Kalimantan Provincial Health Office noted an increase in measles cases with the finding of 95 suspected measles cases in the East Kalimantan region.[8] Head of the East Kalimantan Health Office, Dr. Jaya Mualimin in Samarinda, Friday, said that during the last three months cases of measles have occurred in a number of areas, especially in the second week it has increased from 19 suspected cases to 95 suspected cases.[8] In fact, continued Jaya, the implementation of measles vaccination in a number of areas had been carried out well, especially for toddlers.[8] "Measles vaccination coverage in East Kalimantan is already above 80 percent," he said.[8] Jaya said the 95 suspects were found in Berau 2 suspected cases, Kutai Kartanegara 16 suspected cases, East Kutai 20 suspected cases, Paser 8 suspected cases, Penajam Paser Utara 1 suspected case, Balikpapan 6 suspected cases, Bontang 1 suspected case, Samarinda 40 suspected cases, Mahakam Ulu 1 suspected case.[8] "We continue to be vigilant, including sending samples to Jakarta," he explained.[8] After coordinating with the East Kalimantan Indonesian Pediatrician Association, the children who were suspected of having measles had a low history of vaccination.[8] This makes them easy to get infected with this disease.[8] He also encouraged the posyandu to actively carry out vaccinations again because the average child goes to school.[8] Jaya hopes that parents can immediately provide complete vaccinations starting from basic immunization from toddlers so that in the future their children's health can be properly maintained and protected from measles.[8] [Full article]

Hand, Foot, and Mouth Disease

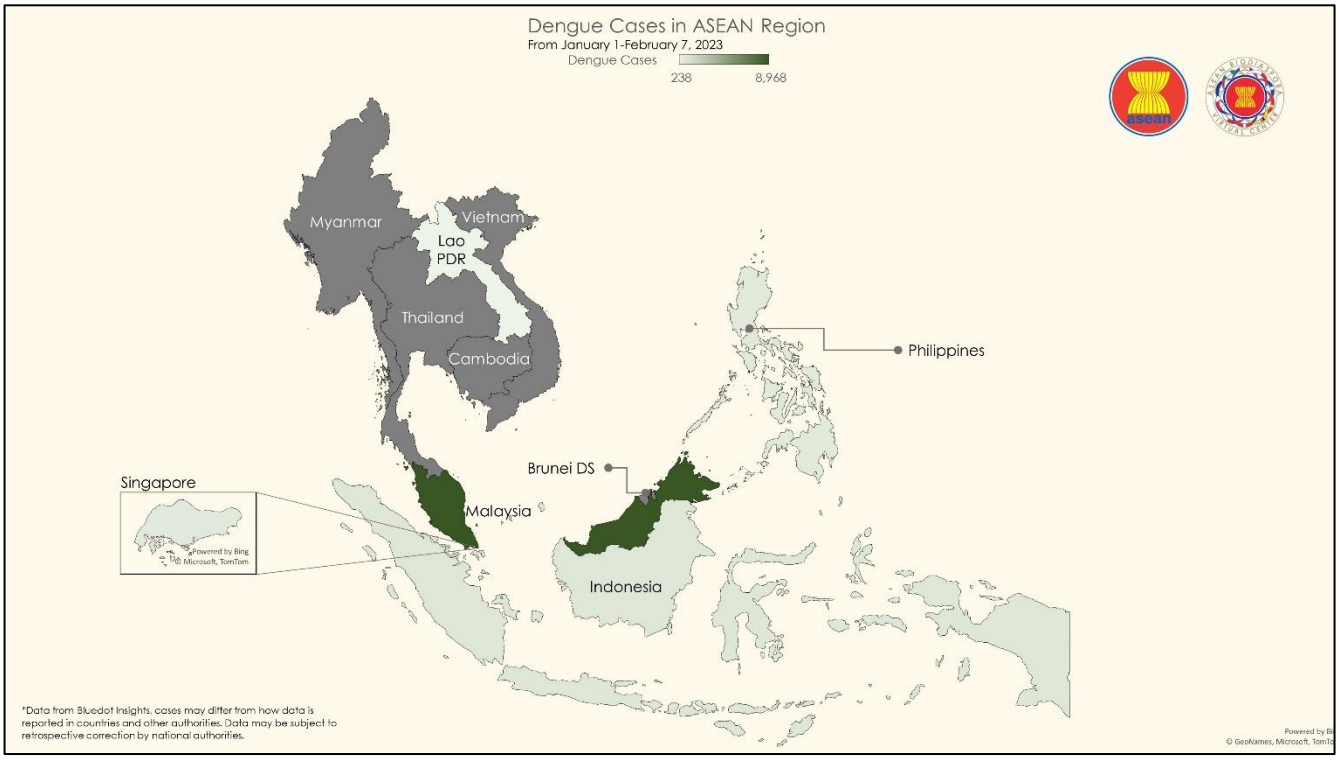
- **Philippines**: Health officials in Kidapawan City in Cotabato province are alarmed over rising cases of the highly contagious hand, foot and mouth disease (HFMD) afflicting local children.[9] Dr. Jose Martin Evangelista, pediatrician at the Kidapawan City health office, told local radio station DXND that as of the end of January, his office had recorded 48 cases from 40 villages.[9] This is a marked increase from only 21 cases for the whole of 2022. Evangelista suspected that there could be more unreported cases as many parents were unaware that their children were already afflicted with the disease.[9] HFMD, he said, is highly contagious because the virus can be transmitted through respiratory tract secretions or mucus and saliva, as one coughs or sneezes.[9] It can also be transmitted through close contact with HFMD patients and sharing of kitchen utensils.[9] "This is very contagious, especially during the first week of illness," Evangelista said, noting that children age 5 and below are most vulnerable to the disease.[9] The common signs of the disease are rashes in the patient's hand, foot and mouth, cough and fever.[9] Evangelista assured that public that his office was working to contain the outbreak, as the city health office started a massive information campaign, especially in schools, to promote preventive measures against HFMD.[9] He said areas hardest hit by the disease outbreak are the villages of Poblacion, Singao, Magsaysay, Macebolig, Amas, Perez, Lanao and Indangan.[9] In Banga, South Cotabato, at least 51 children were reported to be ill with HFMD but health officials now said the spread of the disease had been contained.[9] [Full article]

Dengue in Non-AMS

- **Republic of Korea:** The first confirmed case of dengue fever this year was confirmed in the Jeonbuk region.[10] The Jeonbuk Provincial Health and Environment Research Institute announced on the 2nd that Mr. A, who had recently visited the Philippines, was confirmed to have dengue fever after showing symptoms of fever.[10] As the number of dengue fever patients is expected to increase due to the easing of entry restrictions, compliance with prevention rules is required.[10] Health authorities have urged people to be careful not to contract mosquito-borne infections when visiting Southeast Asian countries.[10] In countries with high risk of mosquito-borne infections such as dengue fever and Zika virus, if you develop suspicious symptoms within two weeks after being bitten by a mosquito, you should visit a medical institution immediately.[10] Suspected symptoms include fever, headache, muscle and joint pain, and rash.[10] There is no vaccine to prevent both diseases, so it is most important to be careful not to be bitten by mosquitoes.[10] [Full article]

Dengue Cases in ASEAN Region

From January 1 to February 7, 2023



Dengue cases in ASEAN region

Country	Dengue Cases	New Cases in the Past Week	Deaths	Case Fatality Rate (CFR)
Brunei Darussalam	-	-	-	-
Cambodia	-	-	-	-
Indonesia	937	550	10	1.07%
Lao PDR	238	0	-	0.00%
Malaysia	8,968	1,910	3	0.03%
Myanmar	-	-	-	-
Philippines	787	461	9	1.14%
Singapore	1,018	186	0	0.00%
Thailand	-	-	-	-
Vietnam	-	-	-	-
Total	**11,948**	**3,107**	**22**	**0.18%**

*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 **3,107** new dengue cases from February 1 to 7, 2023 in Indonesia, Malaysia, the Philippines, and Singapore. The region reported **11,948** total cases and **22** total deaths in 2023 with **0.18%** CFR.

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Dengue

- **Indonesia:** The government of Buleleng Regency, Bali, noted that there were 101 cases of dengue hemorrhagic fever (DHF) in Buleleng Regency during January 2023. Throughout 2022, DHF cases in Buleleng Regency totaled 875 cases.[6] According to Acting Regent of Buleleng, Ketut Lihadnyana, the trend of increasing dengue cases was triggered by the rainy season.[6] He hoped that cases of dengue fever can go down soon. In order to control cases, the World Mosquito Program (WMP) and the Provincial Government of Bali, supported by the Australian Government and the Gillespie Family Foundation, are conducting a pilot project for dengue control in Buleleng using the Wolbachia bacteria.[6] "Wolbachia can restrain the dengue virus in the Aedes aegypti mosquito body so that it does not infect humans," he explained.[6] Furthermore, the mosquitoes containing the Wolbachia bacteria will be released into the environment to breed.[6] According to Lihadnyana, if an ordinary male mosquito mates with a female mosquito, the Wolbachia bacteria will not be able to reproduce.[6] Conversely, if the male mosquito has the Wolbachia bacteria, it will produce mosquito larvae with the Wolbachia bacteria.[6] "By suppressing the number of Aedes aegypti mosquitoes which do not carry Wolbachia bacteria, we will be able to reduce cases of dengue fever.[6] After this, there is one fact that we hope for, namely a reduction," said Lihadnyana. In addition, massive outreach must be carried out to accelerate the DHF control program.[6] [Full article]

- **Philippines**: The city health office here is monitoring five barangays in Lapuz district where a clustering of dengue cases has been recorded while a village in Arevalo district has been identified as a hotspot area.[7] There is a clustering of cases when a village has three or more cases in four consecutive weeks while a hotspot has an increasing or clustering of cases in four weeks and one or more deaths.[7] Dr. Roland Jay Fortuna, assistant city health officer, on Friday identified barangays Bo. Obrero with seven cases, Sinikway and Don Esteban with four cases each and Rizal Sur and Mansaya with three cases each to have clustering of cases in Lapuz district.[7] Meanwhile, the village of So-oc in Arevalo district is tagged as a hotspot area with three cases and one fatality.[7] "We are checking on the area to determine if there are stagnant waters.[7] We continue with our misting, hopefully it will be continuous since it is not effective when it rains," he said in a media interview.[7] From Jan. 1 until Feb. 2, the city has 48 cases; 12 active, 29 already recovered, and two deaths. Fortuna called the two deaths as early as January "alarming".[7] He identified the fatalities as a 15-year-old male from So-oc and a 28-year-old male from Calahunan, Mandurriao.[7] He reminded the public not to ignore the early signs and symptoms of the disease and immediately seek consultation as part of the 4S strategy which includes seeking and destroying breeding places, self-protection, and support fogging during an outbreak.[7] The 28-year-old victim, he said, experienced a fever on Jan. 22, sought consultation on the following day due to general weakness and died due to complications two days after.[7] [Full article]

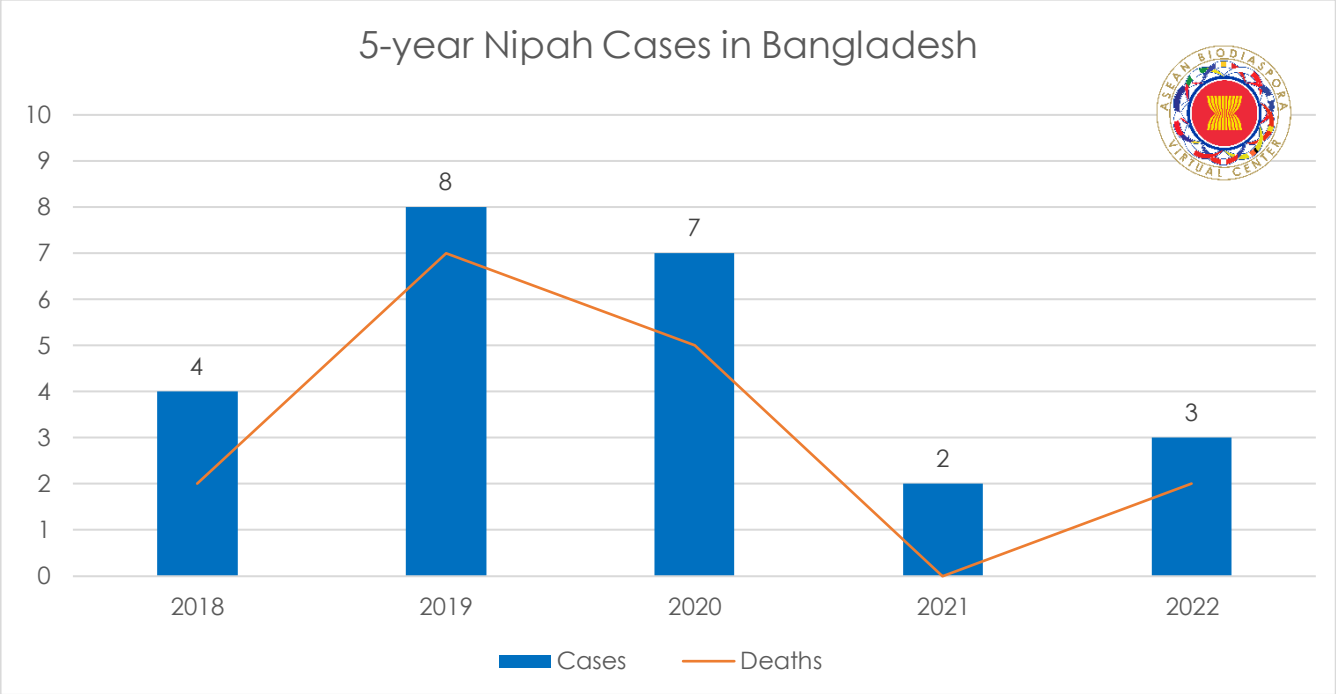
Special Report on Notable Diseases

Nipah Virus Outbreak

Nipah Virus in Bangladesh

Nipah virus is designated as a high-priority pathogen by the World Health Organization and the Coalition for Epidemic Preparedness Innovations (CEPI) because of its pandemic and bioterrorism potential. Individuals can contract Nipah virus from animals through contaminated food or directly from infected people. The disease can be severe, with symptoms that include respiratory problems and encephalitis that lead to coma or death, and there are no approved treatments or vaccines.

In the last five years, Bangladesh has reported sporadic Nipah virus cases. However, this 2023, Nipah virus activity increased sharply. Bangladesh's Institute of Epidemiology, Disease Control, and Research (IEDCR) reported a total of 10 Nipah virus cases and 7 deaths from January to February 6, 2023. Bangladesh is one of three countries, alongside India and the Philippines, that also reported sporadic cases.



In earlier announcements, Bangladeshi officials warned people to avoid drinking raw date juice, which can be contaminated by the saliva or feces of bats that harbor Nipah virus.

Risk of Exposure

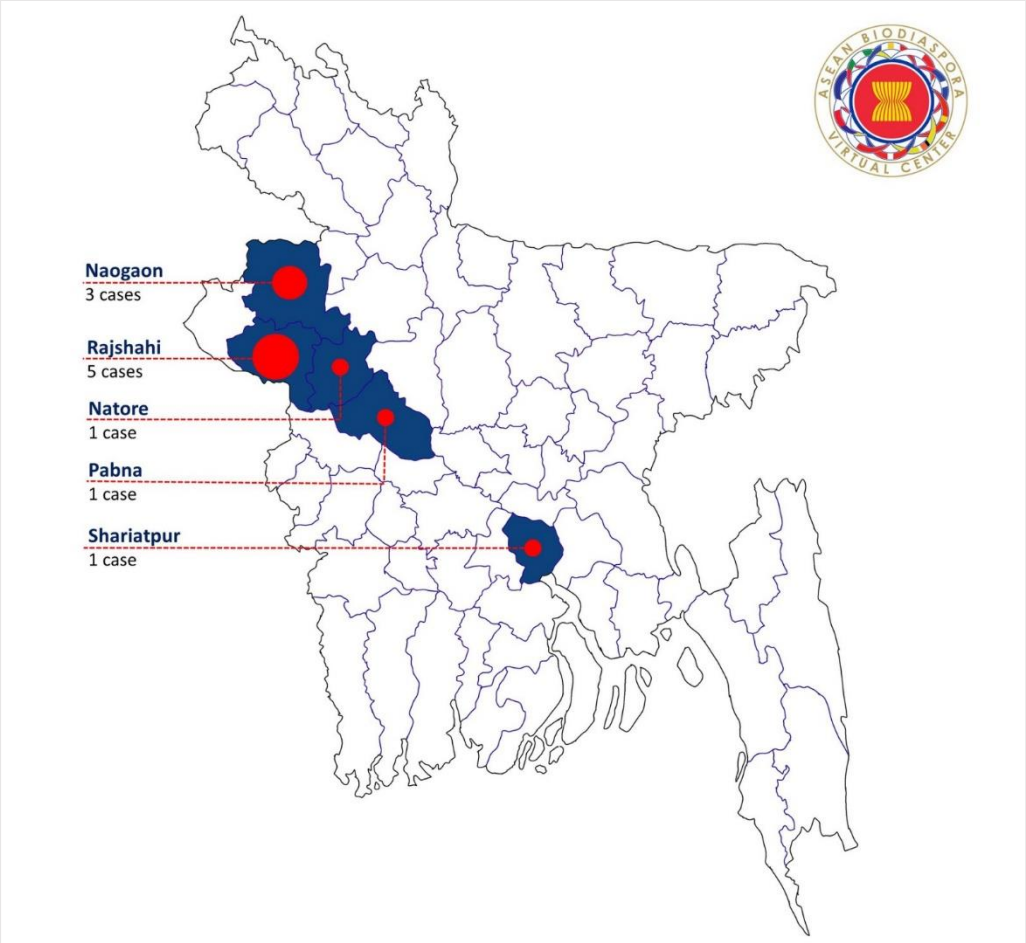
In Bangladesh, where Nipah virus infection was recently reported, exposure has been linked to consumption of raw date palm sap and contact with bats. Human-to-human transmission has also been documented and exposure to other Nipah virus infected individuals is also a risk factor.

Implications of Nipah Virus

Nipah virus can cause severe febrile encephalitis resulting in death in 40% to 75% of human cases.

Nipah Virus Cases in Bangladesh

January to February 6, 2023



Prevention of Nipah Virus (NiV) according to US CDC

- Practice handwashing regularly with soap and water.
- Avoid contact with sick bats or pigs.
- Avoid areas where bats are known to roost.
- Avoid eating or drinking products that could be contaminated by bats, such as raw date palm sap, raw fruit, or fruit that is found on the ground.
- Avoid contact with the blood or body fluids of any person known to be infected with NiV.

Previous Nipah Virus Reported in ASEAN Region

Lessons from the Nipah Virus Outbreak in Malaysia

The Nipah virus outbreak in Malaysia (from September 1998 to May 1999) resulted in 265 instances of severe encephalitis and 105 deaths, as well as the near-collapse of the billion-dollar pig-farming business.[12] Early control attempts were inadequate since the outbreak was initially linked to Japanese encephalitis, and the disease spread to other parts of Malaysia and neighbouring Singapore.[12] The identification of a novel aetiological agent, Nipah virus (NiV), from the cerebrospinal fluid of an outbreak victim, was the tipping moment that resulted in outbreak control two months later.[12] NiV, together with the Hendra virus, is now classified as a new genus in the Paramyxoviridae family, Henipavirus (Hendra + Nipah).[12] Since then, the local and worldwide scientific communities have worked to understand the epidemiology, clinicopathophysiology, and etiology of this novel disease.[12] Humans got the sickness through intimate contact with infected pigs, laying the groundwork for pig culling, which eventually brought the outbreak to an end.[12] NiV specifically targeted medium and small blood arteries, causing endothelial multinucleated syncytia and fibrinoid necrosis.[12] Disseminated cerebral microinfarctions caused by vasculitis-induced thrombosis and direct neuronal involvement were discovered during autopsies.[12] NiV was discovered in the urine and saliva of Malaysian Island flying foxes (Pteropus hypomelanus and Petropus vampyrus), implicating them as NiV natural reservoir hosts.[12] It is likely that the first transmission of NiV from bats to pigs occurred in late 1997/early 1998 as a result of migration of these forest fruitbats to cultivated orchards and pig farms caused by fruiting failure of forest trees during the El Nino-related drought and anthropogenic fires in Indonesia in 1997-1998.[12] This outbreak underlines the importance of sharing information about rare illnesses in animals and humans, keeping an open mind, and working together with veterinarians and wildlife specialists to investigate such disorders.[12] Mismanagement of the environment (such as deforestation and smog) has far-reaching consequences, including wildlife encroachment into human habitats and the introduction of zoonotic illnesses into domestic animals and humans.[12]

Historical Nipah Virus Cases in the Philippines

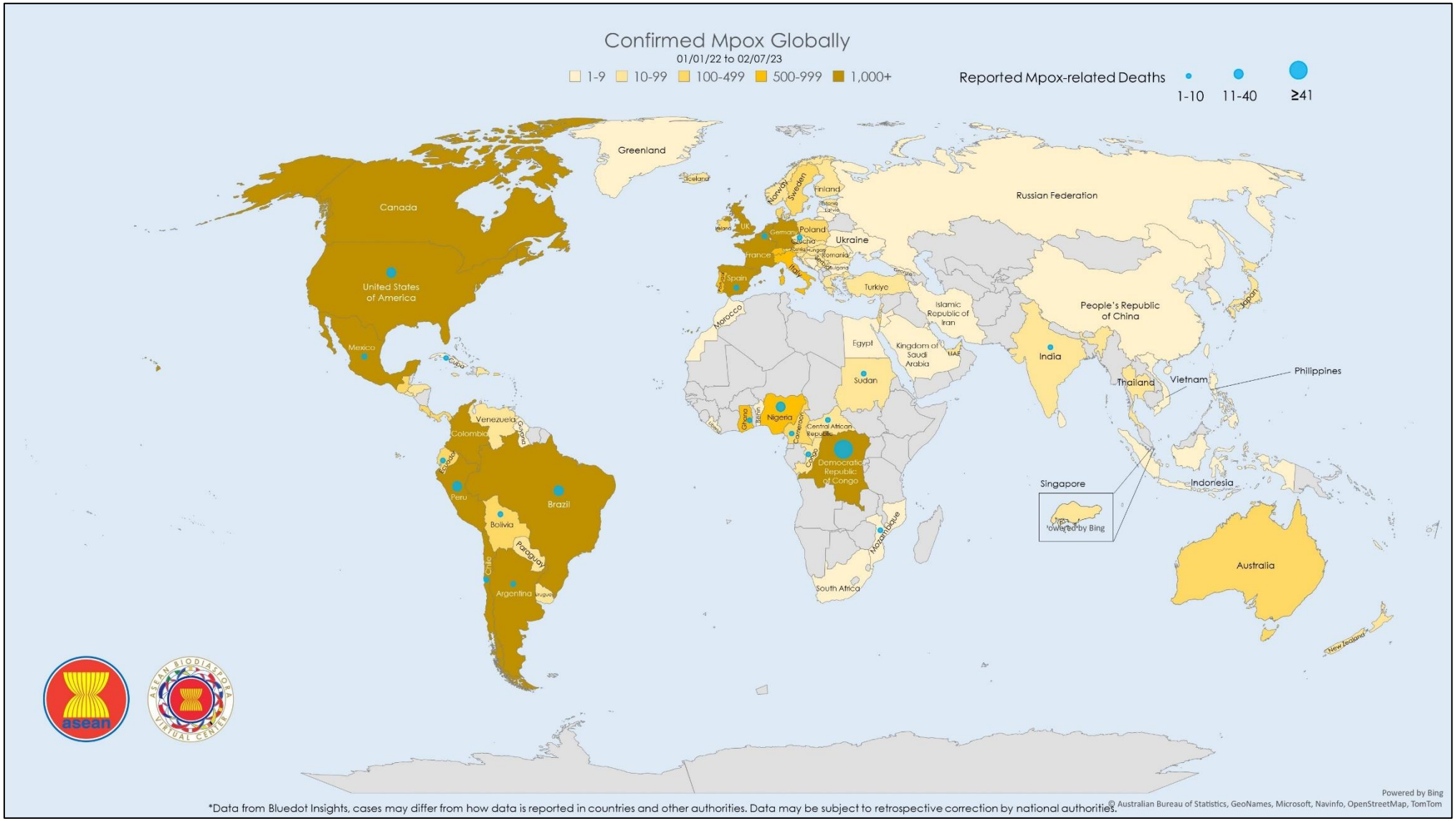
In 2014, henipavirus infection caused severe sickness in humans and horses in the southern Philippines; human fatality rates were high.[11] Transmission from horse to human and human to human occurred. Fruit bats were the most likely source of horse illness.[11] For quick diagnosis, risk factor analysis, control measure implementation, and further viral characterization, ongoing surveillance is required.[11]

Clinical presentations, epidemiologic findings, and serologic results suggest that the virus causing this outbreak was a henipavirus.[11] It was most likely NiV or a virus that is antigenically and genetically closely related to NiV.[11]

Epidemiologic data suggest that the most common route of virus transmission to humans was direct exposure to infected horses, contact with contaminated body fluids during slaughtering of sick horses, and/or consumption of undercooked meat from infected horses.[11] Clinical and epidemiologic evidence, however, suggests direct human-to-human virus transmission in at least 5 cases.[11] Those who cared for case-patients at home wore no protective equipment, and health care staff used gloves and a face mask but no eye protection.[11] Human-to-human transmission findings in this outbreak supports the necessity for prophylactic measures in home care and health care settings.[11] [Full text]

Mpox (Monkeypox) Cases Reported Globally

as of February 7, 2023



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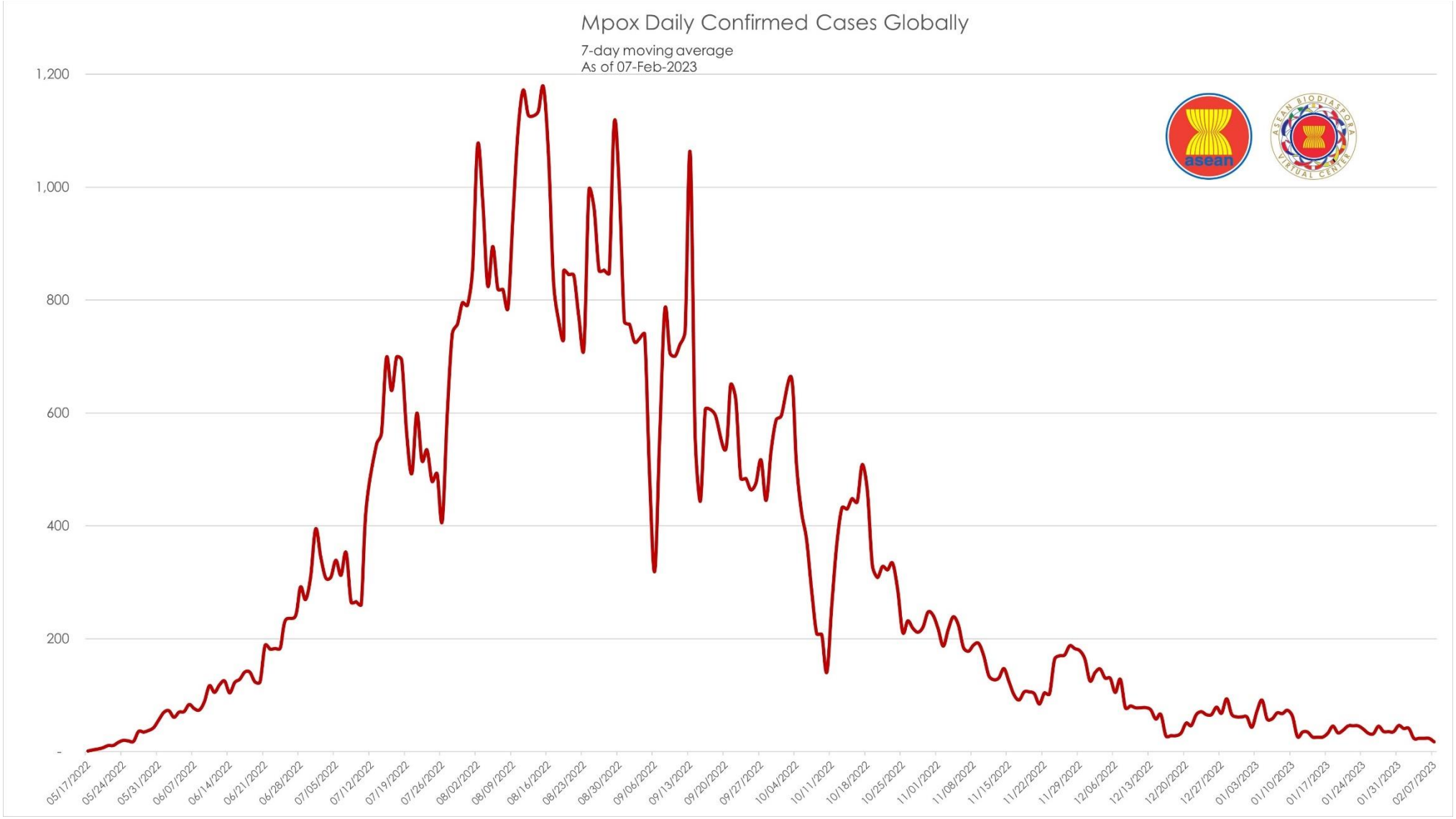
Mpox Daily Trend Globally

as of February 7, 2023



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Mpox: Highlights and Situation Overview

- As of 08 February 2023 (1PM, GMT+7), worldwide, there were **91,923** confirmed cases, including **238** deaths. Globally, Case Fatality Rate (CFR) was **0.26%.**
- **44 confirmed cases** in the ASEAN region, with CFR of **0%.**
- **91,879 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	21	-	-	0.00%
Thailand	14	1	-	0.00%
Vietnam	4	-	-	0.00%
ASEAN Total	**44**	**1**	**-**	**0.00%**

Mpox cases in Asia-Pacific region

Country/Territory	Total Cases	New Cases	Deaths	Case Fatality Rate (CFR)
Australia	144	-	-	0.00%
Hong Kong (SAR)	1	-	-	0.00%
India	22	-	1	5.00%
Japan	16	3	-	0.00%
New Caledonia	1	-	-	0.00%
New Zealand	40	-	-	0.00%
People's Republic of China*	9	-	-	0.00%
Republic of Korea*	4	-	-	0.00%
Sri Lanka	2	-	-	0.00%
Asia-Pacific Total	**239**	**3**	**1**	**0.42%**

*People's Republic of China – including Hongkong (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	30,123	-	28	0.09%
Brazil	10,732	13	15	0.14%
Spain	7,532	5	3	0.04%
Democratic Republic of Congo	5,114	-	120	2.35%
France	4,128	-	-	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	6,783	-	161	2.37%
AMERICAS	58,207	113	71	0.12%
ASEAN	44	1	-	0.00%
ASIA PACIFIC	239	3	1	0.42%
EUROPE	26,216	6	5	0.02%
MIDDLE EAST	321	-	-	0.00%
TOTAL	**91,923**	**123**	**238**	**0.26%**

Research Update

- In the study ***Clinical characteristics of mpox infection in individuals who received a first dose of modified vaccinia Ankara immunization***, a large study of patients seen at sexual health clinics in London found low numbers of mpox cases after vaccination with one dose of modified vaccinia Ankara (MVA-BN) vaccine.[1] The researchers from the United Kingdom's National Health Service (NHS) looked at the electronic health records of 10,068 people who received their first dose of the vaccine at NHS sexual health clinics in London between June 20 and October 31, 2022 and included a postvaccination follow-up of at least 4 weeks.[1] Of the group, 15 (0.15%) were diagnosed as having mpox wherein among those who tested positive, symptoms have developed within an average of 4 days after immunization.[1] Clinical information showed a pattern similar to that seen in infected unvaccinated people and systemic symptoms were common in patients needing supportive medical care.[1] All individuals were found to have localized skin lesions and one patient was hospitalized to manage severe pain related to proctitis.[1] Researchers concluded that mpox breakthrough levels are low following one dose of the vaccine adding that the short median time interval between vaccination and initial symptoms in those who were diagnosed with mpox suggests that most had been incubating the virus at the time of vaccination or may have developed the illness before adequate antibody levels were achieved following vaccination.[1] However, researchers noted that one patient started having symptoms 30 days after vaccination.[1] [Full text]
- The study on ***Mpox Cases Among Cisgender Women and Pregnant Persons — United States, May 11–November 7, 2022*** by the US Centers for Disease Control and Prevention (CDC) analyzed mpox patterns in cisgender women included 769 cases reported between May 11 and November 7, 2022.[2] Of the 23 pregnant women, 2 were within 3 weeks of pregnancy. Eleven received tecovirimat, and no adverse effects were reported.[2] Four were hospitalized for symptoms related to mpox. Of three women with known delivery outcomes, two had full-term deliveries, and one miscarried at 11 weeks.[2] Two women who had mpox symptoms within 3 days after delivery, and their infants developed lesions within 1 week of symptom onset.[2] The authors said health providers should consider mpox when evaluating new genital, oral, or breast lesions.[2] They emphasized that any person, including cisgender women, can contract mpox and that public health efforts should include those from at-risk groups.[2] They also noted that more data are needed on affected pregnant women and infants to better understand the effects of the disease on clinical outcomes.[2] [Full text]

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