

COVID-19 and Mpox Situational Report in the ASEAN Region

– ASEAN BioDiaspora Virtual Center (ABVC)

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ASEAN BIODIASPORA VIRTUAL CENTER (ABVC)





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COVID-19: Highlights and Situation Overview

Global Update

- Worldwide, there have been over 663 million cases and over 6 million deaths attributed to COVID-19.
- The **US Centers for Disease Control and Prevention (CDC)** reported in its weekly update that XBB.1.5 Omicron subvariant is now dominant in most US regions as a decline in infections appears to be slowing or leveling off.¹ In its latest variant projections today, the CDC said that the more transmissible XBB.15 subvariant makes up an estimated 74.7% of cases, up from 66.4% last week.¹ The only area where the subvariant isn't dominant is in the far northwestern region, which includes Alaska, Idaho, Oregon, and Washington.¹ Meanwhile, no other variants increased in proportion.¹ [Full report]
- The United States reported that the 7-day average for new daily COVID-19 cases is 40,404, down by 1% compared to a week ago.² Meanwhile, the 7-day average for new COVID-19 hospitalizations has declined by 6.2% last week.² For deaths, the country averaged 453 new fatalities each day last week, down by 9.7% compared to the previous week.² [Full report]
- The European Centre for Disease Prevention and Control (ECDC) said COVID-19 markers are stable overall with a slight shift from steadily improving trends over the past weeks.³ Some countries are reporting small rises in notification rates, and the XBB.1.5 subvariant is slowly growing, now making up an estimated 7.4% of cases.³ Meanwhile, the United Kingdom's Health Services Agency is reporting a mixed picture, with increases in some indicators including hospitalizations, especially in the older population.³ [Full report]

Regional Update

- **Malaysia:** Beginning in March, information on COVID-19 cases on the Health Ministry's KKMNow website may be updated weekly rather than daily.¹⁰ The ministry has been publishing daily COVID-19 data on its website, as well as weekly COVID-19 information through the director-media general's comments.¹⁰ Tan Sri Dr. Noor Hisham Abdullah (photo) of the Government of Health, on the other hand, stated that the ministry was considering discontinuing daily updates on the KKMNow portal.¹⁰ Dr. Noor Hisham stated that, regardless of any prospective changes, the monitoring and reporting of COVID-19 data and information would continue at all levels of the Health Ministry, including districts, states, and headquarters.¹⁰ [Full article]
- **Myanmar:** Myanmar's Ministry of Health reported 17 new instances of COVID-19 Omicron BA.5 and BA.2 subvariants this week.¹¹ According to the health ministry, additional cases of Omicron subvariants were discovered in patients who were tested for COVID-19 on February 13.¹¹ According to the ministry, the instances included nine cases of Omicron BA.5 subvariant and eight cases of Omicron BA.2 subvariant.¹¹ According to the government, 14 of the cases are imported, while three are local.¹¹

Research Update (Published and peer-reviewed studies)

• The study COVID-19 Incidence and Mortality Among Unvaccinated and Vaccinated Persons Aged ≥12 Years by Receipt of Bivalent Booster Doses and Time Since Vaccination — 24 U.S. Jurisdictions, October 3, 2021–December 24, 2022 by the Centers for Disease Control and Prevention (CDC) found that recipients of the bivalent (twostrain) COVID-19 vaccine booster were 14 times less likely to die of Omicron BA.4/BA.5 infections than their unvaccinated peers and 5 times less likely to die than recipients of



the monovalent (single-strain) booster, particularly among older people.⁴ In all periods, average weekly infection and death rates were higher among unvaccinated people than among monovalent booster-only recipients.⁴ Cases and deaths during the late BA.4/BA.5 period were lowest among bivalent booster recipients.⁴ Overall, case rate ratios (RRs) for unvaccinated versus monovalent-only vaccine recipients decreased from 4.0 during Delta to 2.6 during BA.1 and 1.8 during BA.2 before climbing to 2.7 in early BA.4/BA.5.⁴ Case RRs for unvaccinated versus bivalent booster recipients were slightly higher than those for monovalent-only vaccine recipients during late BA.4/BA.5.⁴ Death rates among older, unvaccinated adults were significantly higher than among those who had received a bivalent booster or a monovalent booster.⁴ The study authors concluded that continued monitoring of the impact of emerging variants on [vaccine effectiveness] against severe COVID-19 outcomes is needed.⁴ [Full text]

- Protective effect of COVID-19 vaccination against long COVID syndrome: A systematic review and meta-analysis, evaluated the relationship between coronavirus disease 2019 (COVID-19) vaccination and long COVID.⁵ PubMed and EMBASE databases were searched on September 2022 without language restrictions (CRD42022360399) to identify prospective trials, observational studies comparing patients with and without vaccination before severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infection, and studies reporting symptomatic changes of ongoing long COVID following vaccination among those with a history of SARS-CoV-2 infection.⁵ Six observational studies involving 536,291 unvaccinated and 84,603 vaccinated (before SARSCoV-2 infection) patients (mean age, 41.2-66.6; female, 9.0-67.3%) and six observational studies involving 8,199 long COVID patients (mean age, 40.0 to 53.5; female, 22.2–85.9%) who received vaccination after SARS-CoV-2 infection were included in the review.⁵ Twodose vaccination was associated with a lower risk of long COVID compared to no vaccination (OR, 0.64; 95% confidence interval [CI], 0.45-0.92) and one-dose vaccination (OR, 0.60; 95% CI, 0.43-0.83).⁵ Two-dose vaccination compared to no vaccination was associated with a lower risk of persistent fatigue (OR, 0.62; 95% CI, 0.41-0.93) and pulmonary disorder (OR, 0.50; 95% CI, 0.47–0.52).⁵ Among those with ongoing long COVID symptoms, 54.4% (95% CI, 34.3–73.1%) did not report symptomatic changes following vaccination, while 20.3% (95% CI, 8.1-42.4%) experienced symptomatic improvement after two weeks to six months of COVID-19 vaccination.⁵ Thus, COVID-19 vaccination before SARS-CoV-2 infection was associated with a lower risk of long COVID, while most of those with ongoing long COVID did not experience symptomatic changes following vaccination.⁵ [Full text]
- Evidence suggests that monovalent vaccine formulations are less effective against the Omicron SARS-CoV-2 than against previous variants.⁶ This retrospective cohort study, SARS-CoV-2 Vaccination and Clinical Presentation of COVID-19 in Patients Hospitalized during the Delta- and Omicron-Predominant Periods, assessed the association between primary vaccination against SARS-CoV-2 and progression to critically severe disease (mechanical ventilation or death).⁶ The study included hospitalized adults with PCRconfirmed COVID-19 during the Delta (October-November 2021) and Omicron (January-April 2022) variant predominant periods in Slovenia.⁶ Compared with the 529 patients hospitalized for acute COVID-19 during the Delta period (median age 65 years; 58.4% men), the 407 patients hospitalized during the Omicron period (median age 75 years; 50.6% men) were older, more often resided in long-term care facilities, and had higher comorbidity index scores.⁶ After adjusting for age, sex, comorbidity index, presence of immunocompromising conditions, and vaccination status, the patients admitted during the Omicron period had comparable odds of progressing to critically severe disease to those admitted during the Delta period.⁶ The 334/936 (35.7%) patients completing at least primary vaccination had lower odds of progression to critically severe disease and shorter hospital stay than unvaccinated patients; however, the protective effect of vaccination was less pronounced during the Omicron than during



the Delta period.⁶ Although the Omicron variant appeared to better evade immunity induced by monovalent vaccines than the Delta variant, vaccination against SARS-CoV-2 remained an effective intervention to decrease morbidity and mortality in COVID-19 patients infected with the Omicron variant.⁶ [Full text]

In Italy, the administration of the COVID-19 vaccine booster dose started on 27 September 2021, supported by clinical trials corroborating its efficacy.⁷ This retrospective study, Effectiveness of mRNA Vaccine Booster against SARS-CoV-2 Infection and COVID-19 in the Adult Population during the First Three Months of the Omicron Wave in Sicily, estimated the vaccine effectiveness of the booster dose against SARS-CoV-2 infection, severe disease, and death in the adult Sicilian population.⁷ Carried out from 1 January to 31 March 2022, this study included all residents in Sicily aged \geq 18 years without previous SARS-CoV-2 infection and with a complete mRNA vaccine primary cycle.⁷ The cohort was split into two groups (booster and primary cycle) matched by age, gender, vaccine type, and month of completion of the primary vaccination cycle.⁷ 913,382 subjects were observed in the study: 456,690 (50%) were vaccinated with two doses and 456,692 (50%) with three doses.⁷ There were 43,299 cases of SARS-CoV-2 among the twodoses vaccinees (9.5%) and 10,262 (2.2%) among the three-doses counterpart.⁷ Vaccine effectiveness in the booster cohort was 76.5% and 74.4% against SARS-CoV-2 infection, 85.7% and 79.7% against severe disease, and 84.1% and 73.1% against intubation or death, for BNT162b2 and mRNA-1273, respectively.⁷ Conclusions: This study confirmed the remarkable efficacy profile of the SARS-CoV-2 vaccine booster dose against infection, severe disease, and death attributable to the virus.⁷ The results of this study provide important real-world data to support the continued roll-out of the COVID-19 booster dose and have the potential to inform public health policy and guide decisions on vaccination strategies in countries around the world.⁷ [Full text]

Travel Update

• **Singapore** will no longer require visitors who are not fully vaccinated to show COVID test results or purchase coronavirus travel insurance beginning February 13, according to the government's virus taskforce on Thursday, Feb. 9.⁹ Masks will also not be required to be worn on public transportation, according to the health ministry, as authorities reduced the illness outbreak reaction level from "yellow" to "green," meaning that COVID-19 is not a threat.⁹ Masks will still be required in healthcare settings where there is patient interaction and in indoor patient-facing locations.⁹ [Full article]

COVID-19 Cases and Deaths as of 13 February 2023

- As of 13 February 2023 (1PM, GMT+7), worldwide, there were 663,405,133 confirmed cases, including 6,767,292 deaths. Globally, Case Fatality Rate (CFR) was 1.2%.
- 35,586,674 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	Brunei Darussalam	10 Mar 20	12-Feb-23	276,825	-	225	-	63,890	450,404	445,929	338,987	99.3
REGION	Cambodia	27 Jan 20	12-Feb-23	138,704	1	3,056	-	841	15,244,858	14,609,937	10,433,215	87.1
	Indonesia	02 Mar 20	12-Feb-23	6,732,799	181	160,864	4	2,488	203,657,535	172,693,321	67,952,274	62.7
	Lao PDR	24 Mar 20	12-Feb-23	217,998	-	758	-	3,041	5,888,649	5,222,417		69.4
	Malaysia	25 Jan 20	12-Feb-23	5,039,486	160	36,951	-	15,773	28,125,245	27,536,657	17,056,957	81.1
	Myanmar	23 Mar 20	12-Feb-23	633,864	1	19,490	-	1,173	34,777,314	27,545,329	2,227,351	50.8
	Philippines	30 Jan 20	12-Feb-23	4,074,691	128	65,949	11	3,769	78,369,243	73,937,435	21,341,197	64.0
	Singapore	23 Jan 20	12-Feb-23	2,218,379	324	1,722	-	38,895	5,161,990	5,120,768	4,440,289	90.8
	Thailand	13 Jan 20	12-Feb-23	4,727,236	-	33,882	-	6,790	57,005,497	53,486,086	32,143,431	74.6
	Vietnam	23 Jan 20	12-Feb-23	11,526,692	41	43,186	-	11,949	90,450,881	85,848,363	57,452,750	87.4
		ASEAN CO	OUNTRIES	35,586,674	836	366,083	15	148,608	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-	Afghanistan	24-Feb-20	12-Feb-23	208,982	11	7,896	-	549	11,606,705	10,894,509		26.5
PACIFIC	Australia	25-Jan-20	08-Feb-23	11,315,226	-	18,828	-	44,114	22,236,871	21,655,312	19,762,423	82.7
REGION	Bangladesh	08-Mar-20	11-Feb-23	2,037,664	-	29,444	-	1,250	150,629,515	131,182,263	65,897,152	76.6
	Bhutan	05-Mar-20	07-Feb-23	62,608	-	21	-	8,205	699,116	677,669	634,641	86.6
	People's Republic of China*		12-Feb-23	13,196,932	17,431	35,914	0	80,786	1,339,608,531	1,304,575,996	214,031,616	89.7
	Cook Islands	17-Feb-22	10-Feb-23	7,022	-	2	-	32,831	15,084	14,715	10,209	86.4
	Fiji	18-Mar-20	10-Feb-23	68,864	-	883	-	7,738	711,686	640,712	170,632	68.9
	French Polynesia	12-Mar-20	04-Jan-23	77,957	-	649	-	27,913	190,765	186,059	112,237	60.8
	Guam	15-Mar-20	10-Feb-23	60,903	-	416	-	36,405	158,611	144,042		85.5
	India	30-Jan-20	11-Feb-23	44,683,992	-	530,750	-	3,270	1,027,279,394	951,464,506	224,093,416	67.1



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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	83.3
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	-	311	-	34,979	399,151	385,081	167,187	73.5
Marshall Islands	26-Oct-20	09-Feb-23	15,590	-	17	-	26,518	43,310	34,694		44.6
Micronesia	11-Jan-21	23-Jan-23	23,671	-	60	-	20,798	84,729	71,253		69.6
Mongolia	10-Mar-20	11-Feb-23	1,007,888	-	2,179	-	31,251	2,272,965	2,175,617	1,044,337	64.0
Nepal	24-Jan-20	12-Feb-23	1,001,115	2	12,020	-	3,499	27,678,479	24,159,118	8,951,403	79.1
New Caledonia	17-Mar-20	31-Jan-23	79,845	-	314	-	27,743	192,229	184,660	101,849	63.7
New Zealand	28-Feb-20	07-Feb-23	2,191,215	-	3,806	-	44,564	4,300,097	4,138,926	3,523,903	79.8
Niue	03-Sep-21	31-Jan-23	747	-	-	-	34,488	1,636	1,634	1,224	83.7
Northern Mariana Islands	28-Mar-20	10-Feb-23	13,582	-	41	-	23,738	46,567	43,873		84.6
Pakistan	26-Feb-20	12-Feb-23	1,576,517	22	30,640	-	728	154,665,740	131,368,973	49,551,181	55.7
Palau	31-May-21	07-Feb-23	5,987	-	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	3.1
Samoa	18-Nov-20	06-Feb-23	16,109	-	29	-	8,173	191,171	177,741	79,360	79.9
Solomon Islands	03-Oct-20	24-Nov-22	24,575	-	153	-	3,669	343,821	254,352	27,783	35.1
Republic of Korea**	20-Jan-20	12-Feb-23	30,350,199	12,051	33,736	16	58,694	44,867,046	44,448,105	41,325,954	85.8
Sri Lanka	27-Jan-20	12-Feb-23	672,009	2	16,829	1	3,082	17,143,761	14,752,827	8,220,002	67.6
Timor Leste	21-Mar-20	07-Feb-23	23,416	-	138	-	1,811	878,845	790,466	315,249	58.9
Tonga	05-Nov-21	10-Feb-23	16,795	-	13	-	16,073	91,949	77,464	38,331	72.5
Türkiye	10-Mar-20	12-Dec-22	17,041,315	-	101,487	-	20,426	57,941,051	53,176,961	41,425,329	62.3
Vanuatu	11-Nov-20	06-Jan-23	12,014	-	14	-	4,006	144,824	131,697	16,996	40.3
Wallis et Futuna	17-Oct-20	31-Dec-22	3,427	-	7	-	21,385	7,150	6,803	3,766	58.7
		ASIA PACIFIC	147,892,173	29,519	873,308	17	684,034	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

• 479,926,286 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	13,044,706	7	259,494	-	248,895	484,058,451	398,811,838	66,003,692
AMERICAS	192,912,696	1,430	2,958,881	13	1,241,199	835,447,892	731,893,384	495,237,137
EUROPE	251,261,953	23,552	2,069,810	46	2,109,795	569,620,774	541,040,894	383,756,585
MIDDLE EAST	22,706,931	844	239,716	12	216,001	144,725,560	130,012,483	60,203,464
TOTAL	479,926,286	25,833	5,527,901	71	3,815,891	2,033,852,677	1,801,758,599	1,005,200,878

COVID-19 Epi curve among ASEAN Countries:

From January 1, 2022 to February 12, 2023



ASEAN Weekly COVID-19 New Cases and New Deaths

From January 1, 2022 to February 12, 2023



ASEAN COVID-19 Vaccination Status

as of 12 February 2023



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ASEAN COVID-19 Outlook Assessment

as of 10 February 2023

ASEAN MEMBER STATE	At least 65% of the total immunity to COVID-19; eith 19 or have been vaccinate a COVID-	population has a level of her recovered from COVID- ed with at least one dose of 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.

Mpox (Monkeypox) Cases Reported Globally

as of February 10, 2023



*Adjusted cases based on the World Health Organization Mpox Report



Mpox Daily Trend Globally

as of February 10, 2023



*Adjusted cases based on the World Health Organization Mpox Report



Mpox: Highlights and Situation Overview

- As of 13 February 2023 (1PM, GMT+7), worldwide, there were **85,766** confirmed cases, including **93** deaths. Globally, Case Fatality Rate (CFR) was **0.11%**.
- 43 confirmed cases in the ASEAN region, with CFR of 0%.
- 85,723 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	15	-	-	0.00%
Vietnam	2	-	-	0.00%
ASEAN Total	43*	-	-	0.00%

*Adjusted cases based on the World Health Organization Mpox Report

Mpox cases in Asia-Pacific region

Country/Territory	Total Cases	New Cases	Deaths	Case Fatality Rate (CFR)
Australia	144	-	-	0.00%
India	22	-	1	5.00%
Japan	19	-	-	0.00%
New Caledonia	1	-	-	0.00%
New Zealand	41	-	-	0.00%
People's Republic of China*	7	-	-	0.00%
Republic of Korea	4	-	-	0.00%
Sri Lanka	2	-	-	0.00%
Asia-Pacific Total	240	1	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	29,948	-	28	0.09%
Brazil	10,758	-	15	0.14%
Spain	7,533	-	3	0.04%
France	4,128	-	-	0.00%
Colombia	4,074	-	-	0.00%

*Adjusted cases based on the World Health Organization Mpox Report



Mpox cases per region

REGION	TOTAL CONFIRMED CASES SINCE JANUARY 1, 2022	NEW CASES SINCE THE PREVIOUS REPORT	TOTAL DEATHS	CASE FATALITY RATE
AFRICA	1,374*	-	17*	1.24%
AMERICAS	58,229	-	70*	0.12%
ASEAN	43*	-	-	0.00%
ASIA PACIFIC	240	-	1	0.42%
EUROPE	25,559	-	5	0.02%
MIDDLE EAST	321	-	-	0.00%
TOTAL	85,766*	-	93*	0.11%

*Adjusted cases based on the World Health Organization Mpox Report

Research Update (Published and peer-reviewed studies)

Ophthalmic manifestations occur in less than 5% of patients with human mpox, most commonly presenting with self-limiting conjunctivitis and keratitis.⁸ Cases with severe ophthalmic complication are uncommon.⁸ This report, **Necrotizing Blepharoconjunctivitis** and Keratitis in Human Monkeypox, presents a case of human mpox with sightthreatening necrotizing blepharoconjunctivitis.⁸ Clinical data on the progression and clinical evaluation of the ocular condition and the management, were collected from July to October 2022.8 A 63-year-old HIV-positive man presented initially with conjunctivitis and eyelid swelling and developed skin lesions from monkeypox virus 2 days later.⁸ Despite remaining stable systemically, after 4 days, his ophthalmic condition evolved to necrotizing blepharoconjunctivitis for which systemic antiviral treatment with tecovirimat was given along with topical trifluoridine, 1%, eye drops.⁸ In addition, he required repeated tissue debridement with amniotic membrane grafting to preserve the eye integrity.⁸ The severity of this observation was associated with a coexisting immunocompromised state and appeared similar to findings associated with other orthopoxviruses.⁸ Ophthalmic manifestations could be the initial presentation of human mpox and could also be severe.⁸ Early recognition and intervention may limit the likelihood of substantial ocular morbidity.⁸ [Full text]

References

- 1. Centers for Disease Control and Prevention. COVID Data Tracker. Atlanta, GA: US Department of Health and Human Services, CDC; 2023, February 13. https://covid.cdc.gov/covid-data-tracker
- 2. "Covid Data Tracker Weekly Review." Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 10 Feb. 2023, https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html.
- 3. "Weekly COVID-19 Country Overview." European Centre for Disease Prevention and Control, 9 Feb. 2023, https://www.ecdc.europa.eu/en/covid-19/country-overviews.
- Johnson, Amelia G., et al. "Covid-19 Incidence and Mortality among Unvaccinated and Vaccinated Persons Aged ≥12 Years by Receipt of Bivalent Booster Doses and Time since Vaccination — 24 U.S. Jurisdictions, October 3, 2021–December 24, 2022." MMWR. Morbidity and Mortality Weekly Report, vol. 72, no. 6, 10 Feb. 2023, pp. 145–152., https://doi.org/10.15585/mmwr.mm7206a3.
- 5. Watanabe, Atsuyuki, et al. "Protective Effect of Covid-19 Vaccination against Long Covid Syndrome: A Systematic Review and Meta-Analysis." Vaccine, 8 Feb. 2023, https://doi.org/10.1016/j.vaccine.2023.02.008.
- 6. Stupica, Daša, et al. "SARS-COV-2 Vaccination and Clinical Presentation of COVID-19 in Patients Hospitalized during the Delta- and Omicron-Predominant Periods." *Journal of Clinical Medicine*, vol. 12, no. 3, 26 Jan. 2023, p. 961., https://doi.org/10.3390/jcm12030961.
- 7. Vella, Giuseppe, et al. "Effectiveness of Mrna Vaccine Booster against SARS-COV-2 Infection and COVID-19 in the Adult Population during the First Three Months of the Omicron Wave in Sicily." *Healthcare*, vol. 11, no. 3, 19 Jan. 2023, p. 305., https://doi.org/10.3390/healthcare11030305.
- 8. Vasquez-Perez, Alfonso, et al. "Necrotizing Blepharoconjunctivitis and Keratitis in Human Monkeypox." JAMA Ophthalmology, 9 Feb. 2023, https://doi.org/10.1001/jamaophthalmol.2022.6253.
- 9. "Singapore Relaxes Covid-19 Travel Curbs." Translated by Laila Afifa, Tempo, TEMPO.CO, 10 Feb. 2023, https://en.tempo.co/read/1689776/singapore-relaxes-covid-19-travel-curbs.
- 10. Zainal, Fatimah. "Covid-19 Data to Be Released Weekly." *The Star*, 13 Feb. 2023, https://www.thestar.com.my/news/nation/2023/02/13/covid-19-data-to-be-releasedweekly.
- 11. "Myanmar Detects 17 New Cases of Covid-19's Omicron Ba.5, Ba.2 Subvariants." The Star, 10 Feb. 2023, https://www.thestar.com.my/aseanplus/aseanplusnews/2023/02/10/myanmar-detects-17-new-cases-of-covid-19039s-omicron-ba5-ba2subvariants.



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