

COVID-19 and Monkeypox Situational Report in the ASEAN+3 Region

-ASEAN BioDiaspora Virtual Center (ABVC)

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COVID-19: Highlights and Situation Overview

Global Update

• Worldwide, there have been over 624 million cases and over 6 million deaths attributed to COVID-19.

Regional Update

- **Brunei:** There is just one Covid-19 case in Brunei that is now in Category 4 (serious section), requiring breathing support, and is being closely watched.¹⁴ There are no patients undergoing treatment in Category 5 at the critical care unit.¹⁴ In the last 24 hours, no fatalities associated with Covid were noted.¹⁴ These were made public by the Ministry of Health on Sunday evening in its daily report (Oct 2).¹⁴ [Full Article]
- **Philippines:** On September 30, the Department of Education (DepEd) acknowledged incidents of students, instructors, and nonteaching staff contracting COVID-19 since the start of the school year in August.¹⁶ A DepEd source told the Inquirer that the reason the number of cases was kept a secret was because officials wanted to see if DepEd regional or division offices and even schools themselves were underreporting or not even reporting cases.¹⁶ Michael Poa, spokesperson for the DepEd, did not specify the exact number of cases in public schools, saying only that the information had to be verified and that it was "expected.¹⁶" The department delegated to schools and division offices the task of developing infection control plans and containment strategies in DepEd Order No. 34, which was released in August and contained "guidelines on the prevention of COVID-19 and other infectious diseases," but was dubbed as a "recipe for disaster" by the Alliance of Concerned Teachers.¹⁶ [Full Article]
- **Singapore:** The National Centre for Infectious Diseases (NCID) said that a COVID-19 therapy that was authorized here last year is no longer advised for usage.¹⁷ Casirivimabimdevimab, which is used to treat mild to moderate COVID-19 instances, is not advised by the NCID Clinical Director Shawn Vasoo because of its subpar effectiveness against Omicron variants.¹⁷ Casirivimab-imdevimab received an interim authorization under the Pandemic Special Access Route from the Health Sciences Authority in September 2021.¹⁷ The World Health Organization (WHO) issued a strong recommendation against using casirivimab-imdevimab and sotrovimab, two more COVID-19 treatments, on September 15 because to their lower efficacy against more recent strains.¹⁷ [Full Article]

Vaccine Update

• Indonesia said that it had become the first nation—before even China—to approve the use of an mRNA COVID-19 vaccine created by a Chinese firm for emergency purposes.¹⁵ The mRNA vaccine from Walvax Biotechnology Co Ltd (300142.SZ), which has been under development for more than two years and targets the original strain of the coronavirus, has received approval from Indonesia's food and medicines administration (BPOM).¹⁵ The approval is somewhat unexpected given that Walvax has not yet released efficacy readings that would demonstrate how effectively it can lower the risk of COVID cases and deaths despite conducting extensive late-stage trials of the vaccine in a number of nations, including China, Mexico, and Indonesia.¹⁵ The vaccine, now known as AWcorna, was 83.58% efficient against wild-type coronavirus strains that are regarded as common and typical, according to Penny Lukito, head of the agency.¹⁵ However, she said that this efficiency reduces to 71.17% against mild instances of the extremely infectious Omicron variety.¹⁵ She omitted to give specifics on the statistics and did not reply to Reuters' requests for more information.¹⁵ [Full Article]



Research Update

- The study Association of Primary and Booster Vaccination and Prior Infection With SARS-CoV-2 Infection and Severe COVID-19 Outcomes examines the relationship between the primary and booster COVID-19 vaccines and SARS-CoV-2 infection, hospitalization, and death using data from March 2020 to June 2022.⁸ The probability of SARS-CoV-2 infection (including Omicron), hospitalization, and mortality were all considerably reduced by receiving the primary COVID-19 vaccine series, boosters as opposed to initial immunization, and prior infection.⁸ But with time, the related protection diminished, particularly against infection.⁸ [Full Text]
- In the research Incidence of Severe COVID-19 Illness Following Vaccination and Booster With BNT162b2, mRNA-1273, and Ad26.COV2.S Vaccines, shows any combination of mRNA-1273 (Moderna), BNT162b2 (Pfizer-BioNTech), and Ad26.COV2.S (Janssen/Johnson & Johnson) primary vaccination series and a booster dose were administered to 1,610,719 participants receiving care at Veterans Health Administration facilities during a period of Delta and Omicron variant predominance.⁹ Over a period of 24 weeks, 125.0 per 10,000 people had breakthrough COVID-19, 8.9 per 10,000 people died from COVID-19 pneumonia or were hospitalized for it, and 3.4 per 10,000 people experienced severe pneumonia or passed away.⁹ Aged 65 years or older: 1.9 per 10,000; high-risk comorbid conditions: 6.7 per 10,000; immunocompromising conditions: 39.6 per 10,000; hospitalization with COVID-19 pneumonia or death: 6.7 per 10,000; and high-risk comorbid conditions: 6.7 per 10,000.9 In this cohort, there was a very low incidence of COVID-19 pneumonia-related hospitalizations or fatalities.⁹ [Full Text]
- In the study Post COVID-19 condition after Wildtype, Delta, and Omicron variant SARS-• CoV-2 infection and vaccination: pooled analysis of two population-based cohorts published in the medRxiv preprint server, researchers in Switzerland investigated the association between post-COVID-19 condition (PCC) six months after infection with the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) Delta or Omicron variant of concern (VOC) and prior COVID-19 vaccination as compared to infection with the SARS-CoV-2 wildtype (WT) strain in non-vaccinated individuals.¹⁰ Data from 1,045 and 305 participants from the Zurich SARS-CoV-2 and Corona Immunitas cohorts, respectively, were analyzed.¹⁰ All individuals were followed up for a median of 183 days.¹⁰ The median ages of the corresponding cohort individuals were 51 years and 43 years, respectively, with 51% and 59% of the corresponding cohorts female.¹⁰ About 25%, 17%, and 13% of WT-, Delta-, and Omicron-infected individuals, respectively, were affected by PCC six months after their most recent SARS-CoV-2 infection.¹⁰ Among individuals vaccinated before infection, 15% and 11% experienced PCC after Delta and Omicron infections, respectively.¹⁰ Overall, the study findings showed that Omicron infection and receipt of COVID-19 vaccines reduced the risk of PCC symptoms six months following infection compared to WT infection without prior vaccination.¹⁰ [Full Text]
- In the study Association of SARS-CoV-2 Seropositivity with Myalgic Encephalomyelitis and/or Chronic Fatigue Syndrome Among Children and Adolescents in Germany, the SARS-CoV-2 KIDS cross-sectional seroprevalence surveys in Germany were used as the basis for this substudy, which was conducted between May 1 and October 31, 2021, at 9 pediatric hospitals.¹³ 198 (31.2%) of the 634 individuals (median age: 11.5 [IQR: 8-14] years), including 40 of 100 SARSCoV-2-seropositive (40.0%) and 158 of 534 SARSCoV-2-seropeative (29.6%) children, exhibited clustering ME/CFS symptoms.¹³ The risk ratio for reporting clustering ME/CFS symptoms fell from 1.35 (95% CI, 1.03-1.78), to 1.18 (95% CI, 0.90-1.53), and for significant tiredness from 2.45 (95% CI, 1.24-4.84) to 2.08 (95% CI, 1.05-4.13), after adjusting for sex, age group, and prior illness.¹³ These results imply that there may not be much of a risk of ME/CFS among children and adolescents who have had SARS-CoV-2 infection.¹³ [Full Text]



Travel Update

- **Thailand:** On September 30, Thailand has lifted COVID-19 state of emergency that has been in effect for two and a half years as the Southeast Asian country downgrades coronavirus severity to the same level as influenza.¹⁸ The action is being taken as the nation, which was a popular holiday destination before the epidemic, tries to revive its tourism-based economy after being rocked by lockdowns and a decline in international visitation.¹⁸ [Full Article]
- South Korea has lifted the on-arrival PCR test requirement since October 1, however, all travelers are still required to register for Q-code on Q-code website (<u>https://cov19ent.kdca.go.kr/cpassportal/biz/beffatstmnt/main.do?lang=en</u>) prior to entry into Korea.

Cases and Deaths as of 03 October 2022

- As of 03 October 2022 (2PM, GMT+8), worldwide, there were 624,548,620 confirmed cases, including 6,561,969 deaths. Globally, Case Fatality Rate (CFR) was 1.1%.
- 89,060,533 confirmed cases of COVID-19 have been reported in the ASEAN+3 countries including 34,507,339 cases in the ASEAN region and 54,553,194 cases in the PLUS THREE countries.
- The Case Fatality Rate in the **ASEAN +3** region is range between **0.1 to 3.1%**.
- There have been no tests reported in the last 14 days in the 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	10 Mar 20	02-Oct-22	227,756	-	225	-	52,565	449,769	444,757	335,738	99.9
REGION	Cambodia	27 Jan 20	02-Oct-22	137,885	8	3,056	-	836	15,186,867	14,535,925	10,131,597	87.6
	Indonesia	02 Mar 20	02-Oct-22	6,434,585	1,322	158,132	10	2,378	204,114,735	170,706,806	63,046,128	62.4
	Lao PDR	24 Mar 20	02-Oct-22	215,876	16	758	-	3,011	5,888,649	5,222,417		70.3
	Malaysia	25 Jan 20	02-Oct-22	4,843,865	2,986	36,375	1	15,161	28,102,745	27,510,084	16,742,978	81.9
	Myanmar	23 Mar 20	02-Oct-22	622,802	-	19,458	-	1,152	34,777,314	27,545,329	2,227,351	51.2
	Philippines	30 Jan 20	02-Oct-22	3,953,886	2,120	63,013	32	3,657	77,470,954	72,853,661	18,779,611	64.0
	Singapore	23 Jan 20	02-Oct-22	1,908,034	3,510	1,619	1	33,453	5,161,367	5,120,432	4,413,636	93.9
	Thailand	13 Jan 20	02-Oct-22	4,682,132	-	32,771	-	6,725	57,005,497	53,486,086	32,143,431	74.7
	Vietnam	23 Jan 20	02-Oct-22	11,480,518	490	43,149	-	11,902	89,880,152	84,072,281	69,805,302	86.3
		AS	SEAN COUNTRIES	34,507,339	10,452	358,556	44	130,840	518,038,049	461,497,778	217,625,772	
ASEAN	South Korea	20-Jan-20	02-Oct-22	24,819,611	23,597	28,489	44	47,999	45,113,628	44,678,807	41,041,854	86.2
PLUS THREE	Japan	16-Jan-20	02-Oct-22	21,161,401	-	44,576	-	16,760	104,214,435	102,837,262	116,778,404	82.5
	China	31-Dec-19	02-Oct-22	8,572,182	47,034	26,568	68	52,356	1,331,982,356	1,299,038,474	832,958,438	87.7
		PLUS T	HREE COUNTRIES	54,553,194	70,631	99,633	112	117,115	1,481,310,419	1,446,554,543	990,778,696	
			ASEAN +3	89,060,533	81,083	458,189	156	247,955	1,999,348,468	1,908,052,321	1,208,404,468	

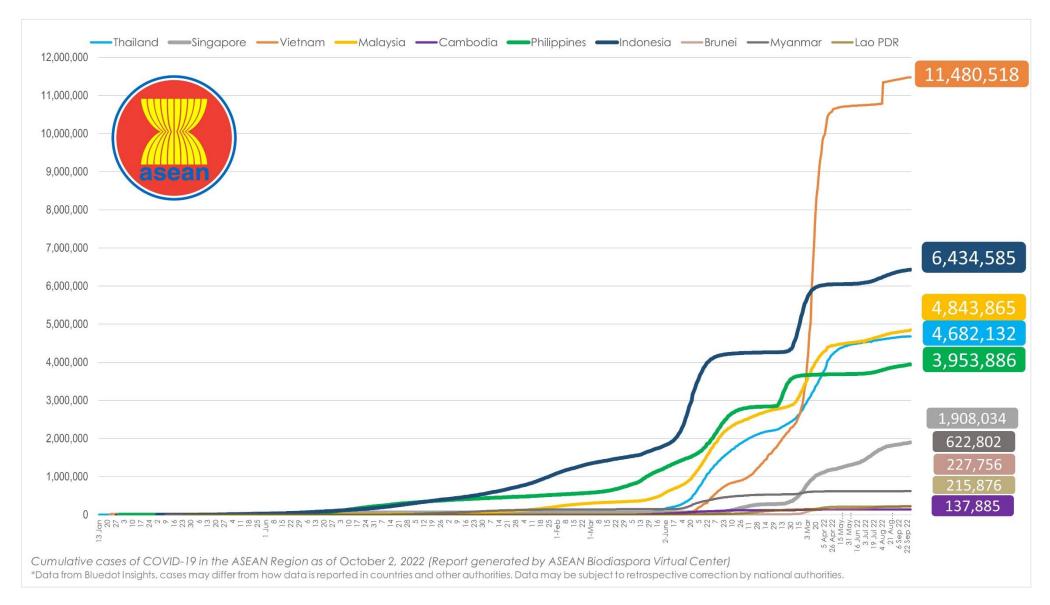
• 535,488,087 confirmed cases of COVID-19 have been reported in 5 continents (other than ASEAN +3 countries):

CONTINENT	TOTAL CONFIRMED CASES	NEW CASES	TOTAL DEATHS	NEW DEATHS	CUMULATIVE CASES/ 100,000	CUMULATIVE VACCINATED	CUMULATIVE FULLY VACCINATED	CUMULATIVE BOOSTERED
AFRICA	12,906,701	93	258,600	-	252,331	402,699,516	319,035,300	49,089,619
AMERICAS	181,541,168	8,103	2,875,147	23	1,180,465	824,395,429	722,545,696	474,932,045
ASIA PACIFIC	85,387,365	4,042	750,198	22	473,778	1,444,644,068	1,335,651,698	383,561,909
EUROPE	233,209,581	111,676	1,981,791	143	1,997,854	565,995,317	537,244,963	354,796,119
MIDDLE EAST	22,443,272	3,193	238,044	13	211,326	144,017,427	129,365,934	59,338,321
TOTAL	535,488,087	127,107	6,103,780	201	4,115,755	3,381,751,757	3,043,843,591	1,321,718,013



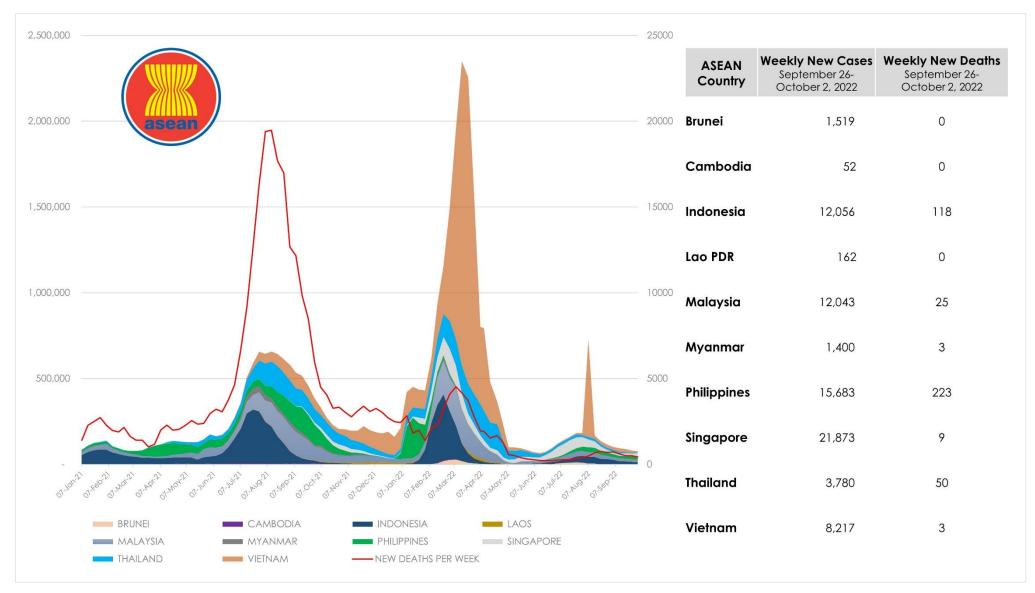
COVID-19 Epi curve among ASEAN Countries:

From January 1, 2021 to October 2, 2022



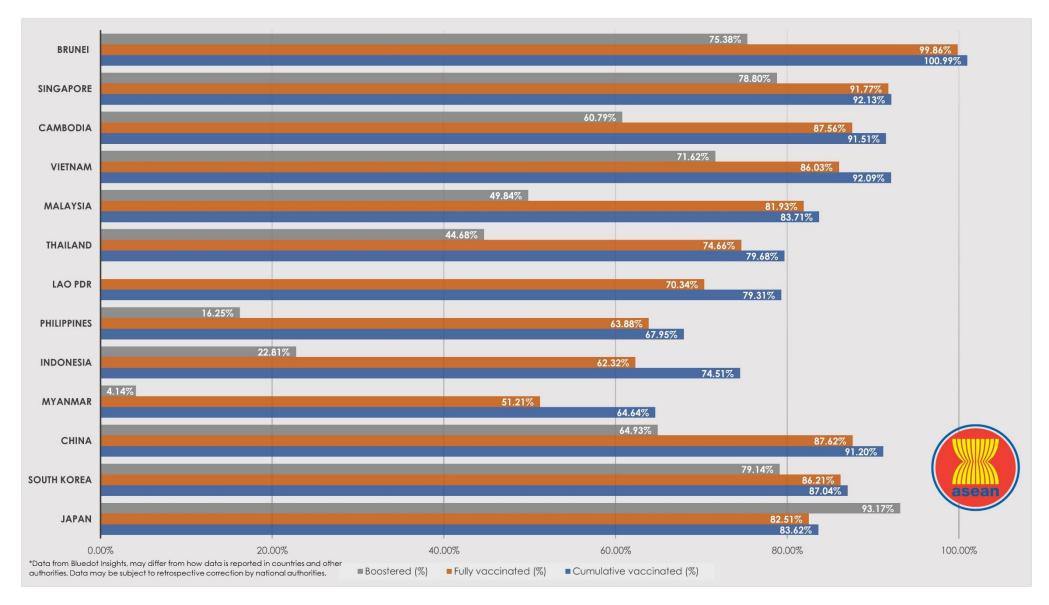
Weekly COVID-19 New Cases and New Deaths

From January 1, 2021 to October 2, 2022



COVID-19 Vaccination Status

as of 02 October 2022





COVID-19 Outlook Assessment

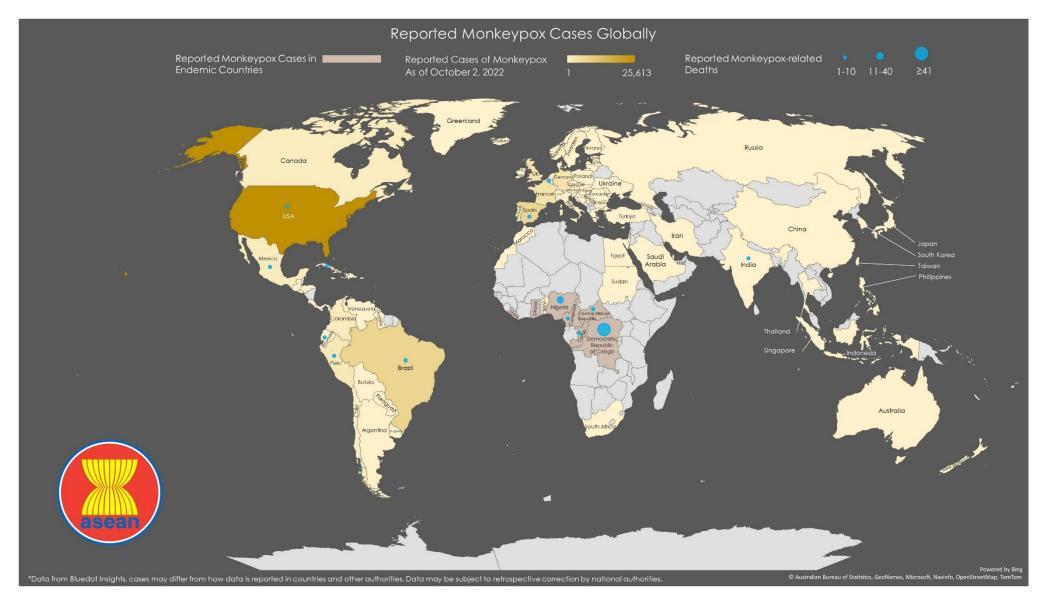
as of 30 September 2022

ASEAN MEMBER	At least 65% of the to level of immunity to recovered from COV vaccinated with at COVID-19	D COVID-19; either /ID-19 or have been least one dose of a	Case levels are generated average number of <10 cases per 100,000 14-day test positivit	Government Policy on containment and health (strictness and comprehensiveness in COVID-19 related government policies)	
STATE	% of Total population fully vaccinated / boostered	Population vaccinated/ day (7-day average)	Daily cases/ 100,000	Test positivity last 14 days	Containment and health index score -Oxford COVID-19 Government Response Tracker (OxCGRT)
Brunei	≥90.0/75.4	Unknown	53.64	Unknown	31.0/100
Cambodia	≥90.0/61.1	Unknown	0.04	Unknown	31.5/100
Indonesia	65.3/22.8	Unknown	0.65	Unknown	54.2/100
Lao PDR	77.3/ND	Unknown	0.53	Unknown	61.6/100
Malaysia	84.4/49.8	0.01%/day	5.82	Unknown	51.8/100
Myanmar	52.1/4.1	Unknown	0.63	Unknown	69.1/100
Philippines	70.5/16.5	Unknown	2.12	Unknown	55.4/100
Singapore	88.8/78.8	0.01%/day	43.83	Unknown	58.9/100
Thailand	77.7/44.8	0%/day	0.88	Unknown	31.5/100
Vietnam	≥90.0/71.6	Unknown	1.66	Unknown	43.5/100
Japan	81.3/≥93.4%	0%/day	32.17	Unknown	42.9/100
South Korea	86.5/79.2	0%/day	57.13	Unknown	38.1/100
China	≥90.0/56.5	Unknown	0.015	Unknown	84.5/100

All of the countries have achieved the estimated high-risk population fully vaccinated of \geq 90.0% except China with 35.3%. All of the countries have achieved the Population vaccinated/ day (7-day average) except Vietnam.

Monkeypox Cases Reported Globally

as of October 2, 2022





- As of 03 October 2022 (2PM, GMT+8), worldwide, there were **72,249** confirmed cases, including **173** deaths. Globally, Case Fatality Rate (CFR) was **0.24%**.
- **52 confirmed cases** of Monkeypox have been reported in the **ASEAN+3** region composed of **34 cases** in the ASEAN region and **18 cases** in the PLUS THREE countries, with CFR of **0%**.
- **72,197 confirmed cases** of Monkeypox have been reported in other **5 regions** (other than ASEAN +3 countries):

Region	Country	Total Cases	New Cases	Deaths	Case Fatality Rate
ASEAN	Singapore	19	-	-	0.00%
ASEAN	Thailand	10	2	-	0.00%
Plus Three	China	5	-	-	0.00%
Plus Three	Japan	5	-	-	0.00%
ASEAN	Philippines	4	-	-	0.00%
Plus Three	Taiwan	4	-	-	0.00%
Plus Three	South Korea	3	-	-	0.00%
ASEAN	Indonesia	1	-	-	0.00%
Plus Three	Hong Kong (SAR)	1	-	-	0.00%
ASEAN+3 Total		52	2	-	0.00%

Monkeypox cases in ASEAN+3 region

Top 5 countries with most monkeypox cases globally

Region	Country	Total Cases	New Cases	Deaths	Case Fatality Rate
Americas	USA	25,613	104	2	0.01%
Americas	Brazil	7,534	89	2	0.03%
Europe	Spain	7,188	39	3	0.04%
Europe	France	3,970	0	-	0.00%
Europe	United Kingdom	3,635	0	-	0.00%

Monkeypox cases per region other than ASEAN+3

REGION	TOTAL CONFIRMED CASES SINCE JANUARY 1, 2022	NEW CASES SINCE THE PREVIOUS REPORT	TOTAL DEATHS	CASE FATALITY RATE
AFRICA*	4,780	342	159	3.33%
AMERICAS	42,513	683	8	0.02%
ASIA PACIFIC	164	5	1	0.61%
EUROPE	24,446	306	5	0.02%
MIDDLE EAST	294	0	-	0.00%
TOTAL	72,197	1,336	173	0.24%



Global Update

- **Nigeria:** Between August 29 and September 4, Nigeria reported 41 new confirmed cases of monkeypox infections, bringing the country's total for 2022 to 318 cases.² This information was provided by the Nigeria Centre for Disease Control (NCDC) in its most recent monthly monkeypox status report, which covers Epidemiological (EP) week 35.² According to the study, 111 additional suspected cases of monkeypox were reported in the same week as the review, bringing the total number of suspected cases to 815.² Seven deaths were reported in seven states in 2022, according to the disease control center.² [Full Article]
- Democratic Republic of Congo: The first monkeypox treatment trial to be carried out on . the African continent was scheduled to start in the DR Congo as the journal went to print.³ The Democratic Republic of the Congo was about to launch a sizable clinical study of tecovirimat for the treatment of monkeypox when The Lancet Infectious Diseases went to print.³ The European Medicines Agency granted Tecovirimat regulatory permission for this usage in 2021, as well as for infections brought on by other orthopoxviruses.³ This approval was mostly based on effectiveness evidence from animal models.³ It was initially authorized in 2018 to treat smallpox.³ The first incidence of human monkeypox was recorded in the DR Congo in 1970, and outbreaks have continued ever since.³ In spite of this, Daniel Mukadi, Regional Director of the National Institute of Biomedical Research in eastern DR Congo, stated that "this would be the first clinical trial [of a monkeypox therapy] in Africa and only when the illness become a worldwide concern.³ "We are in favor of doing clinical trials here on the continent.³ One of our top goals is the requirement that Africa participate in the development of vaccines and pharmaceuticals.³ Ahmed Ogwell Ouma, acting director of the Africa Centers for Disease Control and Prevention, stated, "We want developers to come collaborate with us in Africa (CDC).³ [Full Article]
- **UK:** According to one of Britain's top infectious disease modelers, the monkeypox situation in the UK is looking "quite promising" with instances continuing to decline.⁴ Prof. Neil Ferguson thinks vaccinations and awareness have contributed to a decrease in instances since a high in July of this year.⁴ The concern arose in May after instances of the illness, which is typically limited to regions of Africa, were discovered in the UK. More than 3,500 cases have been reported in the UK, but less than 100 new infections have occurred recently.⁴ There had been concerns that monkeypox would become endemic, which would make it permanently prevalent in the UK and other nations that had not previously seen instances.⁴ However, according to Prof. Ferguson of Imperial College London, instances in Europe and North America have been trending decreasing.⁴ If it does last, he predicts that it will "probably endure at intermittent low levels.⁴" [Full Article]

Regional Update

• **Thailand:** According to Dr. Opart Karnkawinpong, director-general of the Disease Control Department, there have been two more instances of monkeypox recorded in Thailand, increasing the total number of illnesses that have been verified to 10.¹ One instance included a 37-year-old Thailady, while the other involved a 54-year-old German male who had been in close contact with the infected woman. Both cases were discovered in the province of Phuket.¹ On September 16th, the woman experienced a fever, sore throat, and muscle aches.¹ She got medicine from a drugstore, but subsequently, blisters emerged on her body.¹ She visited a hospital on September 25th for treatment, and tests conducted there later that day proved she had monkeypox.¹ On September 27, the German guy also started to get blisters, and a diagnostic test verified his condition. Now, both are receiving medical care in a hospital.¹



Research Update

- In the study Incidence of Monkeypox Among Unvaccinated Persons Compared with Persons Receiving ≥1 JYNNEOS Vaccine Dose, monkeypox incidence was 14 times higher among males who had not gotten the first dose of the JYNNEOS vaccine than among those who did, throughout 32 U.S. counties, among males aged 18 to 49 who were eligible for the immunization.⁵ From this, it may be inferred that a single JYNNEOS dosage offers some defense against monkeypox infection. Unknown are the extent and longevity of such protection.⁵ [Full Text]
- In the research Human Monkeypox Virus Infection in the Immediate Period After Receiving Modified Vaccinia Ankara Vaccine, the Modified Vaccinia Ankara-Bavarian Nordic vaccine's (MVA-BN, JYNNEOS) immunogenicity data indicate strong response rates following the 2-dose series (100% at 2 weeks), but there are few data on the vaccine's clinical usage efficacy.⁶ The biggest monkeypox testing and immunization facility in the US Midwest tracked monkeypox infection following a single dose of MVA-BN.⁶ 7,339 people received their first dosage of MVA-BN, and 400 patients tested positive for monkeypox.⁶ The bulk of postvaccination monkeypox infections happened two weeks after getting the first dosage of MVA-BN, before complete efficacy was probably attained, and therefore might not actually be the result of vaccine failure.⁶ After more than 28 days following the first dosage of MVA-BN, eight instances of monkeypox occurred.⁶ Two breakthrough infections seen in people at least three weeks following the second dosage are concerning.⁶ [Full Text]
- In the Monkeypox Case Investigation Cook County Jail, Chicago, Illinois, July-August 2022, after a prison inmate who had symptoms of monkeypox spent 7 days in congregate housing, there was a monkeypox transmission risk at the Cook County Jail.⁷ A subset of residents who had intermediate-risk exposures (being within 6 feet of the patient for about 3 hours without wearing a mask) and were watched for symptoms or had serologic testing done on them found no instances.⁷ DNA from the monkeypox virus was found on one surface, but no active virus.⁷ Although the spread of monkeypox may be restricted in similar communal settings free of higher-risk exposures, institutions should adopt recommended infection control procedures and offer confidential PEP counseling as well as preventative education.⁷ [Full Text]
- In the recent study on Viral loads in clinical samples of men with monkeypox virus infection: a French case series published in the Lancet Infectious Diseases, 356 samples from 50 men in France infected with monkeypox shows that viral DNA detection by polymerase chain reaction (PCR) was more frequent from the skin (88% of men), throat (77%), and anus (71%) swabs, than from semen (54%), blood (29%), or urine (22%).¹¹ The highest viral DNA loads were consistently found in skin and anal swabs, and lesions were common on the anus and genitals, which continues to suggest sexual contact as the main route of transmission.¹¹ According to the authors, high Monkeypox viral loads from skin and mucosa, including genital and anal sites, suggest that transmission most likely occurs through direct body contact rather than through the respiratory route or contact with body fluids, which should help to refine the prevention messages delivered to individuals most exposed to the virus.¹¹ [Full Text]
- In US developments, Ohio has reported its first monkeypox death, in a man without underlying health conditions.¹² This marks the second confirmed monkeypox death in the United States.¹² In CDC's third technical report, the United States has confirmed 25,613 monkeypox cases, citing that activity seems to have peaked in August.¹² The median age of patients is 34, and there was (as of yesterday) one official death linked to the virus.¹² [Full <u>Report</u>]



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