

COVID-19 Situational Report in the ASEAN+3 Region

ASEAN BioDiaspora Virtual Center (ABVC)

as of July 1, 2022



COVID-19: Highlights and Situation Overview

Global Update

- **Worldwide**, there have been over 553 million cases and over 6 million deaths attributed to COVID-19.
- According to **World Health Organization's (WHO)** weekly epidemiological update, globally, the number of weekly cases has increased for the third consecutive week, after a declining trend since the last peak in March 2022. During the week of 20 to 26 June 2022, over 4.1 million new cases were reported, an 18% increase as compared to the previous week. The number of new weekly deaths remained similar to that of the previous week, with over 8500 fatalities reported. At the regional level, the number of new weekly cases increased in the Eastern Mediterranean Region (+47%), the European Region (+33%), the South-East Asia Region (+32%), and the Region of the Americas (+14%), while it decreased in the African Region (-39%) and the Western Pacific Region (-3%). The number of new weekly deaths increased in the Eastern Mediterranean Region (+22%), the South-East Asia Region (+15%), and the Region of the Americas (+11%), while decreases were observed in the Western Pacific Region (-6%), the European Region (-5%) and the African Region (-1%). As of 26 June 2022, over 541 million confirmed cases and over 6.3 million deaths have been reported globally. These trends should be interpreted with caution as several countries have been progressively changing COVID-19 testing strategies, resulting in lower overall numbers of tests performed and consequently lower numbers of cases detected.
- The **U.S. Food and Drug Administration** on Thursday recommended booster doses of COVID-19 vaccines be modified beginning this fall to include components tailored to combat the currently dominant Omicron BA.4 and BA.5 subvariants of the coronavirus. The FDA said manufacturers would not need to change the vaccine for the primary vaccination series, saying the coming year will be "a transitional period when this modified booster vaccine may be introduced." The new booster shots would be bivalent vaccines, meaning doses would target both the original virus as well as the Omicron subvariants.
- **North Korea** claimed on Friday the country's first COVID-19 outbreak began with patients touching "alien things" near the border with South Korea, apparently shifting blame to the neighbor for the wave of infections that hit the isolated country. Announcing its probe results, the North ordered its people to "vigilantly deal with alien things coming by wind and other climate phenomena and balloons in the areas along the demarcation line and borders." According to the state media KCNA, an 18-year-old soldier and a five-year-old kindergartener who contacted the unidentified materials "in a hill around barracks and residential quarters" in the eastern county of Kumgang in early April showed symptoms and later tested positive for the coronavirus. The KCNA said all other fever cases reported in the country till mid-April were due to other diseases, but it did not elaborate. North Korean defectors and activists in South Korea had for decades flown balloons carrying leaflets and humanitarian aid across the heavily fortified border.

Regional Update

- **Indonesia:** The National Agency of Drug and Food Control (BPOM) has issued emergency use authorization (EUA) for Favipiravir, Remdesivir, Regdanvimab, and Molnupiravir COVID-19 therapeutic drugs, an official announced in Depok, West Java. BPOM's Production Supervision Director for Drugs, Narcotics, Psychoactive Drugs, and Precursors Togi Junice Hutadjulu stated on Thursday that the EUA was given as approval

for drug use during a public health emergency. During a discussion event with the Student Executive Board of the Faculty of Pharmacy, University of Indonesia, (BEM FF UI), Hutadjulu explained that in the 3rd edition of the informatory published by BPOM, the names of COVID-19 therapeutic drugs that belong to the antiviral group, included Favipiravir, Remdesivir, Molnupiravir, Proxalutamide, and Oseltamivir.

- **Philippines:** The Department of Health (DOH) logged on Thursday an additional 1,309 cases of COVID-19, the highest recorded in four months, further raising the country's active cases to 7,871. This is the highest number of daily tally recorded since Feb. 25, when 1,671 COVID-19 new cases were reported. According to the DOH's COVID-19 tracker, the new infections also raised the country's caseload to 3,704,407 nationwide, with 3,635,981 recoveries and 60,555 deaths. The new cases were also significantly higher than the average number of infections recorded from June 20 to 26 at 662, as well as Wednesday's recorded number at 781. Metro Manila also continues to lead with the highest number of infections — and by a large margin — per region in the last two weeks with 4,529 cases, followed by Calabarzon with 1,689 cases and Western Visayas with 784. Quezon City tops the list of cities with the most reported cases at 971, followed by Manila with 588 and Makati with 577. The DOH tracker data also showed that a total of 22,154 individuals have been tested for COVID-19 on Wednesday, June 2.
- **Singapore:** From July 1, charges for some COVID-19 care will rise, the retirement age will be 63 and there will be fewer spots for smokers to light up. There are also new rules for foreign-registered vehicles here. Here's what you need to know. People who are medically vulnerable with specific conditions may self-declare their health conditions to get their second COVID-19 vaccine booster at any vaccination centre or Public Health Preparedness Clinics (PHPCs) and polyclinics that offer vaccination. This group includes patients aged 18 and above with chronic conditions such as diabetes, heart failure, asthma, liver cirrhosis, stroke and cancer under active treatment, among others. Subsidies at PHPCs and polyclinics for the treatment of respiratory infections will revert to pre-pandemic levels. This means the flat \$5 to \$10 fee for such infections will no longer apply, though Singaporeans may still get other subsidies under other schemes. Telemedicine subsidies for those who are mildly symptomatic and recovering at home will also revert to pre-pandemic levels. This refers to people under the Ministry of Health's Protocol 2 definition for COVID-19 recovery. Those under Protocol 1, who are at high medical risk or have severe symptoms but were discharged to a home setting, will continue to receive fully subsidized telemedicine care. Emergency department charges for vaccinated Singapore citizens, permanent residents and long-term pass holders with COVID-19 will also no longer be waived in all cases. Those who are deemed not to require hospital admission or treatment at a dedicated facility will not have their charges waived, but those who are assessed to require admission or treatment will continue to have their charges and inpatient bills fully subsidized.
- **South Korea** on Thursday (Jun 30) authorised AstraZeneca PLC's antibody-based therapy for preventing COVID-19 infection in people with a poor immune response, increasing its options as it works to ease the pandemic burden on the healthcare system. The Ministry of Food and Drug Safety granted emergency use authorization for 20,000 doses of Evusheld for individuals aged 12 years and older who have not been exposed to the coronavirus. Nearly 87% of South Korea's 52 million people are fully vaccinated against COVID-19, while 65% have also had a booster, government data showed. However, individuals with compromised immune systems or those with a history of severe adverse reaction to vaccines may need alternative prevention options. Evusheld could be used for people whose immune systems are unlikely to mount adequate responses to COVID-19 vaccination or for whom vaccination is not recommended, the ministry said. AstraZeneca in March said Evusheld retained its neutralizing activity against the Omicron coronavirus variant in an independent study, and that it reduced the risk of symptomatic COVID-19 by 77% in trials. While vaccines rely on an

intact immune system to develop targeted antibodies and infection-fighting cells, Evusheld contains laboratory-made antibodies designed to linger in the body for months to contain the virus in case of infection. The British drugmaker's therapy has already been authorized in the United States and its use has been recommended by the European Medicines Agency.

- **Japan** has registered 3,803 new coronavirus cases on Wednesday. The Tokyo metropolitan government will raise its alert level for new coronavirus infections to the second-highest of four levels. Despite the increasing COVID-19 cases in Japan, health ministry is urging people to take precautions against heatstroke. That includes removing face masks outdoors when social distancing can be maintained and there is little conversation taking place. New guidelines on Japan's face mask policy were released in May, including a list of situations in which people can remove their masks. But many still consider wearing a mask to be standard practice and continue to do so outside, even on hot days.
- **China:** President Xi Jinping has reiterated that the dynamic zero-COVID policy has proved to be "correct" and "effective" in the nation's response to COVID-19 outbreaks, saying that the "herd immunity" approach would cause unimaginable consequences in such a populous country as China. Xi, who is also general secretary of the Communist Party of China Central Committee, made the remarks on Tuesday during an inspection tour of Wuhan, the capital of Hubei province. The city reported the first case of COVID-19 in China. He visited a residential community and a high-tech enterprise in Wuhan, and highlighted the importance of coordinating the COVID response and socioeconomic development, as well as improving the nation's independence and self-reliance in science and technology. While visiting the Zhiyuan Community, Xi commended the city's regular epidemic prevention and control efforts, saying that since Wuhan won the battle against the virus in 2020, it has encountered several outbreaks again, but it got them under control in a short time, thereby preventing massive resurgences of the virus. Practice has proved that the principle and policy adopted by the CPC Central Committee are correct and effective and must be unswervingly upheld, Xi said. Over the past more than two years, China has adhered to the overarching principle of "guarding against imported cases and preventing a resurgence of the outbreak at home" and the dynamic zero-COVID policy to combat the pandemic.

Travel Advisories (new update/s)

| ASEAN+3 Country | Published | Travelers allowed | COVID-19 vaccination requirement | Required COVID-19 testing for fully vaccinated | Required COVID-19 testing for NOT fully vaccinated | Quarantine upon arrival | Health insurance requirement | Arrival health declaration/ registration/ documents |
|------------------|---------------|-------------------|---|--|--|---|------------------------------|---|
| Brunei | June 21, 2022 | Yes | Yes – fully vaccinated* certificate for 18 years old and above. | No | Yes – Subjected to a rapid antigen test upon arrival and an RT-PCR test on the day 3 at their own expense. | Self-quarantine at a private residence or hotel for NOT fully vaccinated until a negative result of RT-PCR is released. No quarantine requirement for fully vaccinated | Minimum coverage: BN\$20,000 | Completed E-health Arrival Declaration Form on BruHealth app . For not fully vaccinated: Proof of medical exemption for COVID-19 vaccines. |
| Cambodia | June 2, 2022 | Yes | Yes – fully vaccinated* certificate for 18 years old and above. | No | No | 7-day quarantine for NOT fully vaccinated. US\$2,000 deposit is required if you quarantine at a government designated hotel. | No | No |
| Indonesia | June 16, 2022 | Yes | Yes – fully vaccinated* certificate for 18 years old and above. | Maybe subjected to RT-PCR test upon arrival | Maybe subjected to RT-PCR test upon arrival | 5-day quarantine for NOT fully vaccinated. No quarantine requirement for fully vaccinated | No | Traveler is required to download and register at PeduliLindungi app before departure. |
| Laos | May 9, 2022 | Yes | Yes – fully vaccinated* certificate for 18 years old and above. | No | Yes – Negative rapid antigen test within 48 hours before departure for 12 years old and above. | No | No | No |
| Malaysia | May 5, 2022 | Yes | Yes – fully vaccinated* certificate for 18 years old and above. | No | Yes – Negative RT-PCR test within 48 hours before departure. | 5-day quarantine for NOT fully vaccinated travelers and will be issued a digital Home Surveillance Order (HSO) on their MySejahtera app. | No | Traveler is required to download and register at MySejahtera app within a week before departure. |

| | | | | | No requirement for fully vaccinated | | | |
|--------------------|---------------|-----|---|--|--|----|------------------------------|---|
| Myanmar | June 15, 2022 | Yes | Yes – fully vaccinated* certificate for 18 years old and above. | Yes – printed negative RT-PCR result for 6 years old and above taken within 48 hours before arrival. | - | No | Coverage: US\$10,000 | No |
| Philippines | June 20, 2022 | Yes | Yes – fully vaccinated* certificate for 18 years old and above. | No | Yes – Negative RT-PCR test within 48 hours before departure or negative rapid antigen test within 24 hours before departure. | No | No | Traveler is required to download and register at One Health Pass app before departure for those without visa. |
| Singapore | June 29, 2022 | Yes | Yes – fully vaccinated* certificate for 18 years old and above and vaccination status on the HealthHub app or TraceTogether app or acceptance letter issued by the Safe Travel Office (STO) or SGAC acknowledgment email. | No | Yes – Negative RT-PCR test within 48 hours before departure for 13 years old and above. | No | No | Traveler is required to download and register at SG Arrival Card app before departure. |
| Thailand | June 24, 2022 | Yes | Yes – fully vaccinated* certificate for 18 years old and above. | Yes – Negative RT-PCR/rapid antigen test within 72 hours before departure. | Yes – Negative RT-PCR/rapid antigen test within 72 hours before departure. | No | Minimum Coverage: US\$10,000 | Traveler is required to download and register at Thailand Pass app within a week before departure. |

| | | | | | | | | |
|--------------------|---------------|---------|---|---|---|---|----|--|
| Vietnam | May 15, 2022 | Yes | No | No | No | No | No | No |
| China | June 30, 2022 | No | - | - | - | - | - | - |
| Hong Kong | June 16, 2022 | Yes | Yes – fully vaccinated* certificate for 12 years old and above. | Yes – Negative RT-PCR test within 48 hours before departure for 3 years old and above. | Yes – Negative RT-PCR test within 48 hours before departure for 3 years old and above. | Travelers are subject to medical screening upon arrival and quarantine for up to 14 days. | No | No |
| Macao | June 15, 2022 | Yes | Yes – fully vaccinated* certificate for 12 years old and above. | Yes – Negative RT-PCR test within 48 hours before departure. | Yes – Negative RT-PCR test within 48 hours before departure. | Travelers are subject to medical screening upon arrival and quarantine for up to 17 days. | No | No |
| Japan | June 9, 2022 | Limited | No | Yes – Negative RT-PCR test within 72 hours before departure for 6 years old and above. Travelers could be subject to COVID-19 test upon arrival. | Yes – Negative RT-PCR test within 72 hours before departure for 6 years old and above. Travelers could be subject to COVID-19 test upon arrival. | Travelers could be subject to quarantine for 3 days. | No | Traveler is required to download and register at MySOS app before departure. |
| South Korea | June 30, 2022 | Yes | No | Yes – Negative RT-PCR test within 48 hours before departure or negative rapid antigen test within 24 hours before departure for 6 years old and above and certified in English or Korean translation. | Yes – Negative RT-PCR test within 48 hours before departure or negative rapid antigen test within 24 hours before departure for 6 years old and above and certified in English or Korean translation. | No | No | No |

Taiwan

| | | | | | | | |
|---------------|-----|----|--|--|--|----|---|
| June 27, 2022 | Yes | No | Yes – Negative RT-PCR test within 48 hours before departure. Travelers are subject to RT-PCR test upon arrival. | Yes – Negative RT-PCR test within 48 hours before departure. Travelers are subject to RT-PCR test upon arrival. | Travelers are subject to quarantine for 3 days. Travelers must have confirmed booking of quarantine facility or hotel. | No | Traveler is required to download and register at Quarantine System for Entry Form before departure. |
|---------------|-----|----|--|--|--|----|---|

- Reference: IATA Travel Centre
- *Fully vaccinated – at least 14 days from 2nd dose for two-dose vaccine or 14 days from a single dose vaccine upon arrival.

Cases and Deaths as of 01 July 2022

- As of 01 July 2022 (2PM, GMT+8), worldwide, there were **553,581,249** confirmed cases, including **6,366,437** deaths. Globally, Case Fatality Rate (CFR) was **1.2**.
- 65,099,114 confirmed cases** of COVID-19 have been reported in the **ASEAN +3** countries including **32,182,709 cases** in the ASEAN region and **32,916,405 cases** in the PLUS THREE countries, with CFR of **0.7**.

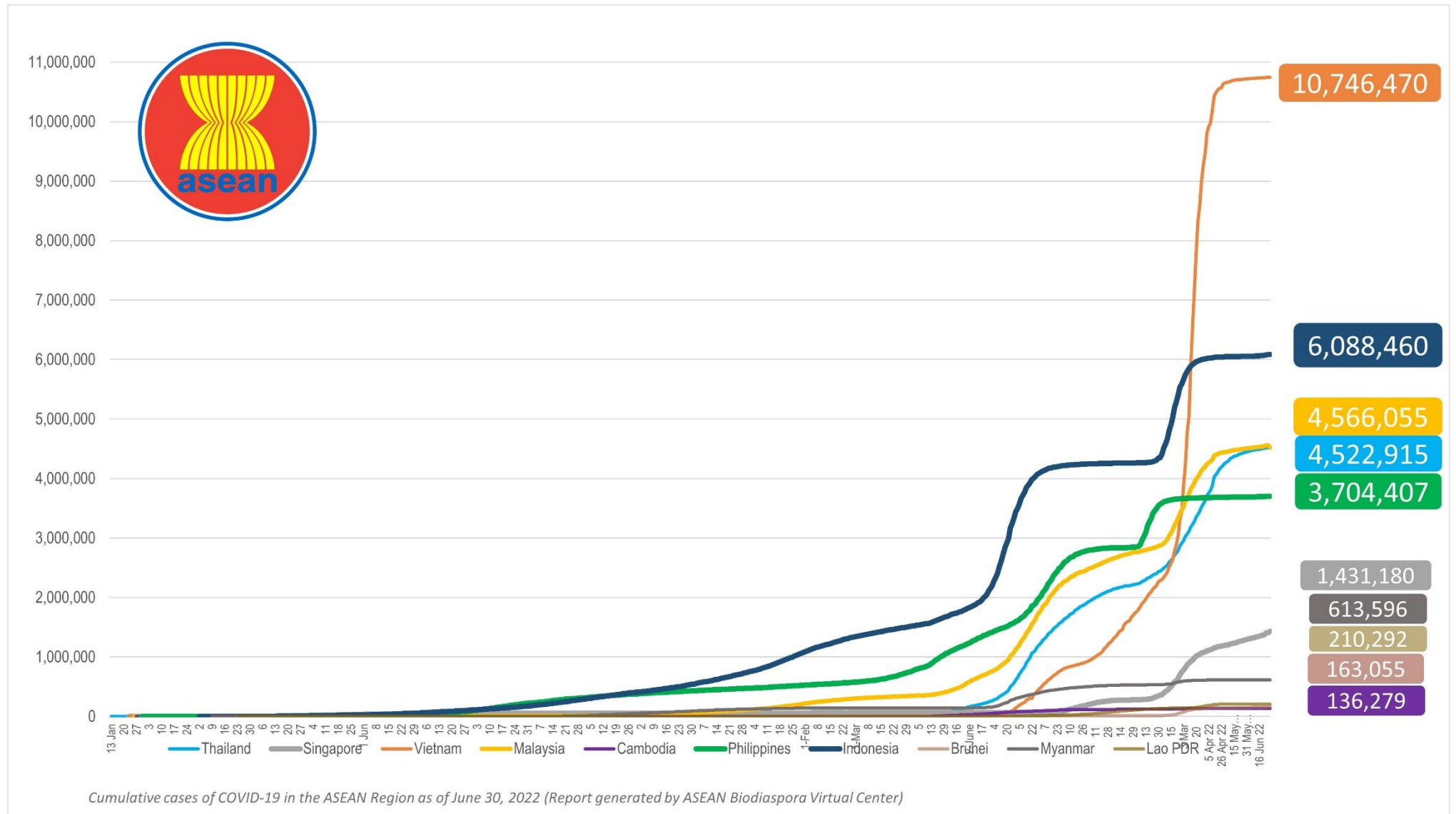
| REGION | COUNTRY | FIRST CONFIRMED CASE(S) | LATEST REPORT ON CONFIRMED CASE(S) | TOTAL CONFIRMED CASES | NEW CASES | TOTAL DEATHS | NEW DEATHS | CASE FATALITY RATE | CUMULATIVE CASES/ 100,000 | NUMBER OF TESTS LAST 14 DAYS/ 100,000 | CUMULATIVE VACCINATED | CUMULATIVE FULLY VACCINATED | CUMULATIVE BOOSTERED | FULLY VACCINATED / 100 |
|------------------|----------------------|-------------------------|------------------------------------|-----------------------|-------------------|----------------|---------------|--------------------|---------------------------|---------------------------------------|-----------------------|-----------------------------|----------------------|------------------------|
| ASEAN REGION | Brunei | 10 Mar 20 | 30-Jun-22 | 163,055 | 744 | 225 | - | 0.1% | 37,632 | - | 444,293 | 426,764 | 301,719 | 96.7 |
| | Cambodia | 27 Jan 20 | 30-Jun-22 | 136,279 | 7 | 3,056 | - | 2.2% | 827 | - | 15,068,135 | 14,361,140 | 9,372,290 | 84.7 |
| | Indonesia | 02 Mar 20 | 30-Jun-22 | 6,088,460 | 2,248 | 156,737 | 6 | 2.6% | 2,250 | - | 201,000,560 | 168,251,795 | 48,269,992 | 60.9 |
| | Lao PDR | 24 Mar 20 | 30-Jun-22 | 210,292 | 14 | 757 | - | 0.4% | 2,933 | - | 5,817,695 | 5,076,787 | | 68.8 |
| | Malaysia | 25 Jan 20 | 30-Jun-22 | 4,566,055 | 2,867 | 35,765 | 2 | 0.8% | 14,291 | 266 | 28,038,242 | 27,272,710 | 16,141,982 | 83.2 |
| | Myanmar | 23 Mar 20 | 30-Jun-22 | 613,596 | 13 | 19,434 | - | 3.2% | 1,135 | 66 | 33,004,742 | 27,027,467 | 2,227,351 | 49.3 |
| | Philippines | 30 Jan 20 | 30-Jun-22 | 3,704,407 | 1,307 | 60,555 | 13 | 1.6% | 3,426 | - | 75,286,371 | 70,532,636 | 14,686,903 | 63.5 |
| | Singapore | 23 Jan 20 | 30-Jun-22 | 1,431,180 | 9,392 | 1,411 | 1 | 0.1% | 25,093 | | 5,019,556 | 4,997,156 | 4,208,410 | 91.6 |
| | Thailand | 13 Jan 20 | 30-Jun-22 | 4,522,915 | 2,695 | 30,651 | 14 | 0.7% | 6,496 | - | 56,701,549 | 52,874,691 | 29,270,150 | 75.6 |
| | Vietnam | 23 Jan 20 | 30-Jun-22 | 10,746,470 | 839 | 43,087 | - | 0.4% | 11,141 | 5 | 86,238,110 | 80,890,773 | 63,275,923 | 82.4 |
| ASEAN COUNTRIES | | | | 32,182,709 | 20,126 | 351,678 | 36 | 1.1% | | | 506,619,253 | 451,711,919 | 187,754,720 | |
| ASEAN PLUS THREE | South Korea | 20-Jan-20 | 30-Jun-22 | 18,359,341 | 9,585 | 24,547 | 10 | 0.1% | 35,505 | - | 45,067,797 | 44,627,671 | 37,784,137 | 87.0 |
| | Japan | 16-Jan-20 | 30-Jun-22 | 9,318,082 | 21,254 | 31,008 | 13 | 0.3% | 7,380 | 453 | 103,729,955 | 102,342,566 | 78,778,566 | 81.2 |
| | China | 31-Dec-19 | 30-Jun-22 | 5,238,982 | 41,370 | 21,278 | 120 | 0.4% | 33,107 | 1,730 | 1,322,574,614 | 1,286,898,043 | 812,083,811 | 85.7 |
| | PLUS THREE COUNTRIES | | | | 32,916,405 | 72,209 | 76,833 | 143 | 0.2% | | | 1,471,372,366 | 1,433,868,280 | 928,646,514 |
| ASEAN +3 | | | | 65,099,114 | 92,335 | 428,511 | 179 | 0.7% | | | 1,977,991,619 | 1,885,580,199 | 1,116,401,234 | |

- 488,482,135 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 | CASE FATALITY RATE | CUMULATIVE CASES/ 100,000 | NUMBER OF TESTS LAST 14 DAYS/ 100,000 | CUMULATIVE VACCINATED | CUMULATIVE FULLY VACCINATED | CUMULATIVE BOOSTERED |
|--------------|-----------------------|----------------|------------------|------------|--------------------|---------------------------|---------------------------------------|-----------------------|-----------------------------|----------------------|
| AFRICA | 12,556,247 | 5,745 | 256,888 | 33 | 1.0 | 236,841 | 2,108 | 324,991,067 | 253,878,980 | 28,862,207 |
| AMERICAS | 165,774,295 | 54,720 | 2,796,771 | 302 | 0.7 | 1,070,869 | 22,722 | 805,671,971 | 712,698,497 | 424,115,158 |
| ASIA PACIFIC | 79,705,890 | 79,137 | 737,114 | 119 | 0.2 | 388,076 | 8,866 | 1,419,772,744 | 1,284,478,483 | 166,323,388 |
| EUROPE | 209,193,368 | 448,224 | 1,913,195 | 475 | 0.6 | 1,826,464 | 26,022 | 559,159,518 | 531,141,367 | 326,222,247 |
| MIDDLE EAST | 21,252,335 | 15,490 | 233,958 | 8 | 0.3 | 196,953 | 30,443 | 142,275,450 | 127,620,590 | 55,430,271 |
| TOTAL | 488,482,135 | 603,316 | 5,937,926 | 937 | 1.2% | | | 3,251,870,750 | 2,909,817,917 | 1,000,953,271 |

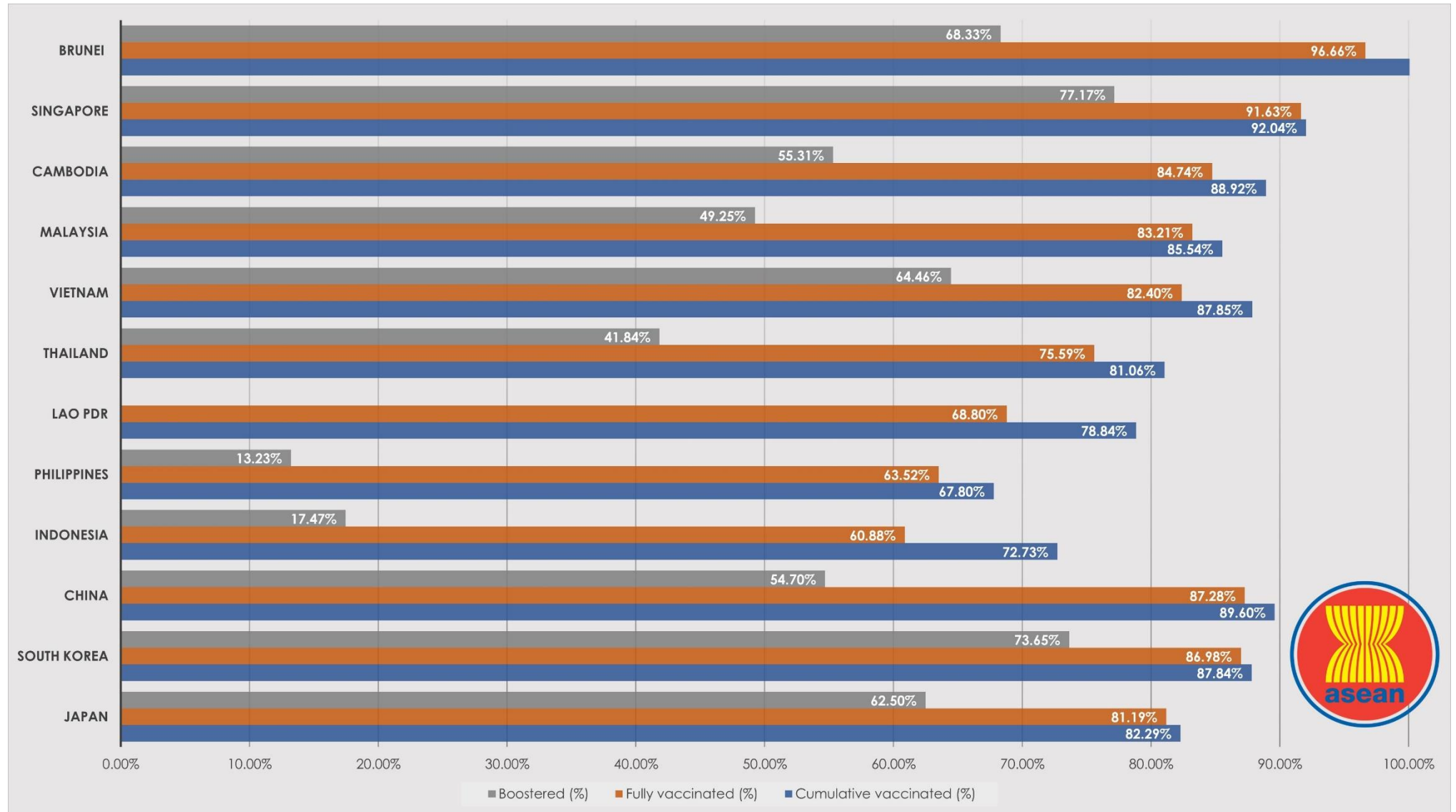
COVID-19 Epi curve among ASEAN Countries:

From January 1, 2021 to June 30, 2022




COVID-19 Vaccination Status

as of 30 June 2022



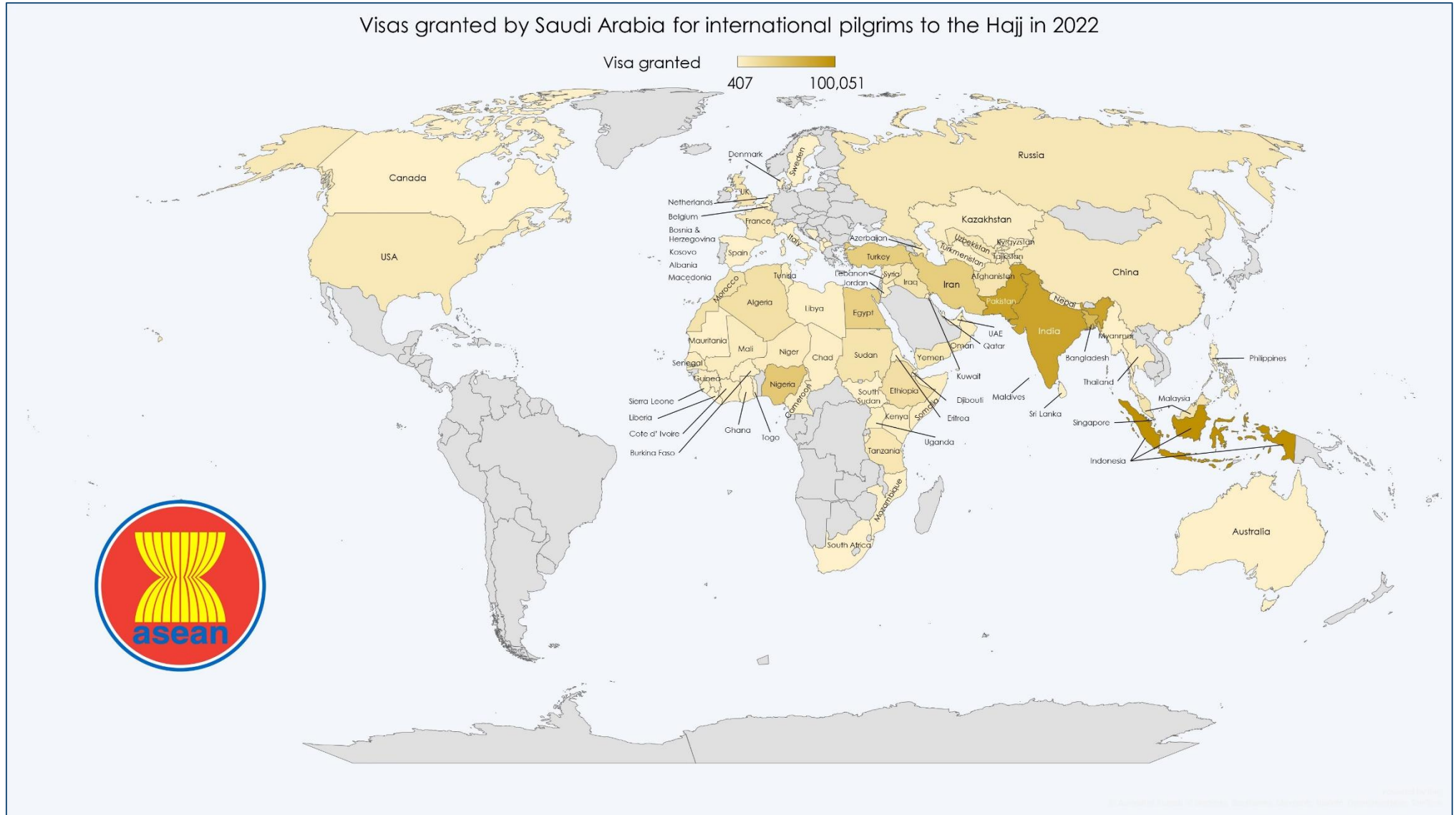
COVID-19 Outlook Assessment

as of 28 June 2022

|  ASEAN MEMBER STATE | REQUIREMENT | | | | | | |
|--|---|---|---|--|------------------------------|---|------------------------------|
| | At least 80% of the high-risk population has been vaccinated with at least one dose of a COVID-19 vaccine. | 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) | |
| | Population vaccinated/ day (7-day average) | % of Total population fully vaccinated / boosted | 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) | Change over the past 30 days |
| Brunei | 0%/day | ≥90.0/68.3 | Unknown | 124.86 | Unknown | 38.1/100 | -22.6 |
| Cambodia | 0%/day | ≥90.0/55.3 | Unknown | 0.01 | 0 | 23.8/100 | +1.2 |
| Indonesia | 0%/day | 64.4/17.5 | Unknown | 0.70 | Unknown | 56.5/100 | -3.0 |
| Lao PDR | 0%/day | 75.1/ND | Unknown | 0.13 | Unknown | 58.0/100 | 0.0 |
| Malaysia | 0%/day | 83.7/49.3 | 0.02%/day | 7.21 | 5.1 | 53.6/100 | +3.6 |
| Myanmar | 0%/day | 51.1/4.1 | Unknown | 0.02 | 0.1 | 61.9/100 | 0.0 |
| Philippines | 0%/day | 68.3/13.2 | Unknown | 0.70 | Unknown | 55.4/100 | -1.2 |
| Singapore | 0%/day | 88.6/77.2 | 0.01%/day | 117.92 | Unknown | 58.9/100 | 0.0 |
| Thailand | 0%/day | 76.8/41.8 | 0.02%/day | 3.14 | Unknown | 44.0/100 | -2.7 |
| Vietnam | 0.3%/day | 87.3/64.5 | 0.3%/day | 0.85 | 100 | 43.5/100 | 0.0 |
| Japan | 0%/day | 80.9/62.4 | 0.01%/day | 13.07 | 9.1 | 42.9/100 | -3.6 |
| South Korea | 0%/day | 86.4/73.6 | 0%/day | 14.20 | 8.3 | 38.1/100 | -4.2 |
| China | Unknown | ≥90.0/54.7 | Unknown | 0.03 | Unknown | 84.5/100 | 0.0 |

Visa Granted by Saudia Arabia for Hajj 2022

as of May 5, 2022



Data from: <https://infoomni.com/complete-list/>

Map Generated by ASEAN Biodiaspora Virtual Center (ABVC)

Table of Visa Granted by Saudi Arabia for Hajj 2022

| Country | Visa granted | Country | Visa granted |
|--------------------------|--------------|-------------------------|--------------|
| Indonesia | 100,051 | Kuwait | 3,622 |
| Pakistan | 81,132 | Tajikistan | 3,562 |
| India | 79,237 | Libya | 3,531 |
| Bangladesh | 57,585 | Ghana | 3,069 |
| Nigeria | 43,008 | Palestine | 2,988 |
| Iran | 38,481 | United Arab Emirates | 2,820 |
| Turkey | 37,770 | Lebanon | 2,716 |
| Egypt | 35,375 | Kyrgyzstan | 2,716 |
| Ethiopia | 19,619 | Myanmar | 2,173 |
| Algeria | 18,697 | Bahrain | 2,094 |
| Morocco | 15,392 | Australia | 2,090 |
| Iraq | 15,252 | Turkmenistan | 2,083 |
| Sudan | 14,487 | Netherlands | 2,083 |
| Malaysia | 14,306 | Canada | 1,951 |
| Afghanistan | 13,582 | Eritrea | 1,901 |
| United Kingdom | 12,348 | Mozambique | 1,811 |
| Tanzania | 11,476 | Sierra Leone | 1,585 |
| Russia | 11,318 | Sri Lanka | 1,585 |
| Yemen | 10,981 | Mauritania | 1,585 |
| Uzbekistan | 10,865 | Belgium | 1,499 |
| Syria | 10,186 | Italy | 1,351 |
| United States of America | 9,504 | Sweden | 1,182 |
| France | 9,268 | South Africa | 1,132 |
| China | 9,190 | Togo | 1,087 |
| Niger | 7,194 | Qatar | 1,087 |
| Oman | 6,338 | Bosnia & Herzegovina | 996 |
| Mali | 6,032 | Albania | 987 |
| Thailand | 5,885 | Spain | 970 |
| Senegal | 5,822 | Burundi | 951 |
| Somalia | 5,206 | Gambia | 905 |
| Tunisia | 4,972 | Macedonia | 905 |
| Uganda | 4,871 | Kosovo | 706 |
| Cameroon | 4,527 | Palestinians in Lebanon | 679 |
| Cote d' Ivoire | 4,527 | Djibouti | 634 |
| Guinea | 4,527 | South Sudan | 616 |
| Kazakhstan | 4,527 | Denmark | 579 |
| Kenya | 4,527 | Nepal | 543 |
| Philippines | 4,074 | Brunei | 453 |
| Chad | 3,997 | Maldives | 453 |
| Azerbaijan | 3,848 | Liberia | 453 |
| Burkina Faso | 3,686 | Singapore | 407 |
| Jordan | 3,622 | | |

Special Report on Mass Gatherings for the Hajj Pilgrimage 2022

Risk Assessment

Prepared by BlueDot, June 28, 2022

The upcoming Hajj Pilgrimage will be held in Mecca and surrounding areas of Saudi Arabia between July 7– 12, 2022. One million pilgrims have been invited to participate, of which 85%

will be international pilgrims from countries around the world. This international mass gathering presents an opportunity for importation, transmission, and exportation of infectious diseases amidst various ongoing outbreaks globally. In this report, we highlight diseases that are relevant to the mass gathering of the Hajj due to arrival of international pilgrims and population mixing among international/domestic pilgrims. Second, we highlight the relevant diseases that may present the highest importation risk from the 21 countries with the most international pilgrims and diseases that may present the highest exportation risk following the Hajj. Lastly, we highlight the public health measures that will be implemented leading up to, during, and after the Hajj Pilgrimage. We leveraged BlueDot's A.I-driven surveillance, example template visualizations, and subject matter expertise to generate this report.

Executive Summary

- Origin country of international pilgrims - In total, 21 countries have been allocated $\geq 10,000$ visas each for pilgrims. The 10 countries with the most allocated visas for pilgrims account for 61.6% of visas allocated for international pilgrims (510,955/829,546). They are (in descending order): Indonesia, Pakistan, India, Bangladesh, Nigeria, Iran, Turkey, Egypt, Ethiopia, and Algeria.
- Diseases relevant to the Hajj –BlueDot leveraged its in-house subject matter expertise to identify infectious diseases of interest in the context of the Hajj, sorted into one of three categories:
 1. Diseases with risk of immediate transmission during the Hajj (including but not limited to: COVID-19, measles, monkeypox, MERS, etc.)
 2. Diseases that can have high consequence but typically reported sporadically (i.e., anthrax, avian influenza, Crimean-Congo hemorrhagic fever, Ebola, botulism, Kyasanur Forest disease, Marburg virus disease)
 3. Diseases that do not present as an immediate transmission risk during the Hajj, but have a risk of longterm establishment in Saudi Arabia due to the presence of a competent vector (i.e., Chikungunya, malaria, yellow fever, Zika, dengue)
- Diseases with an importation risk concern – We focused the scope of this risk assessment on the aforementioned relevant infectious diseases in the 21 countries allocated $\geq 10,000$ visas for international pilgrims and highlighted diseases with the highest incidence rate between the last 6 calendar months (Dec 1, 2021 – May 31, 2022):
 - Origin countries of the majority of pilgrims have reported cases of Category 1 diseases: **cholera** (particularly Bangladesh, Afghanistan, Nigeria); measles (particularly Afghanistan, Nigeria, Ethiopia, Sudan, Pakistan); and monkeypox (United Kingdom, Nigeria).
 - Very few cases of category 2 diseases have been reported, though Iraq had reported the most **Crimean Congo Hemorrhagic Fever** cases (n=236) between Dec 1, 2021 – May 31, 2022.
 - For category 3 diseases, cases of **Malaria** (particularly Nigeria, Pakistan, Sudan), **dengue** (particularly Malaysia, Indonesia), and to a lesser degree, **chikungunya** (particularly Malaysia, India), **yellow fever** (in Nigeria only), and **Zika** (in India) have been reported in recent months.
 - **COVID-19** – Among the countries with $\geq 10,000$ visas, UK, Malaysia, Russia, Iraq, and Turkey had the most reported COVID-19 cases in the last 30 days per 100,000, as of June 27. Meanwhile, countries that have seen the largest increase in reported COVID-19 cases per 100,000 in the last 30 days (June 27 vs. May 27, 2022) are: Bangladesh, Morocco, Ethiopia, Iraq, and Indonesia. These countries are

within the top 12 countries with the most visas allocated for international pilgrims. Of these locations, the UK, Malaysia, Morocco, Turkey, Russia, and Indonesia have reported presence of the SARS-CoV-2 Omicron BA.5 VoC that has immune escape properties and is driving resurgences in a number of countries.

- **Monkeypox** – Nigeria accounts for the 5th most allocated visas for pilgrims and has sub-optimal surveillance of monkeypox despite known outbreak(s). BlueDot previously estimated that the true outbreak size in Nigeria (country with the fifth most visas allocated for international pilgrims) is 120 – nearly 360 times larger than confirmed cases based on reported travel-related cases and global connectivity.
- Diseases with an exportation risk concern– BlueDot has identified MERS (Middle Eastern Respiratory Syndrome), measles, COVID-19, and monkeypox as diseases with high exportation risk from Saudi Arabia due to risk of human-to-human transmission and outbound travel following the Hajj.
- Public health measures for the Hajj - Saudi Arabia has implemented various strict public health precautions to mitigate risk of infectious disease outbreaks and importation. These include: a limited number of pilgrims participating in the Hajj (1 million compared to >2 million in pre-pandemic years); mandatory masking in indoor/outdoor religious areas; mandatory vaccination against yellow fever, meningitis, poliomyelitis, COVID-19; vector control through insecticide spraying campaign; safe water supplies and sanitation.



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