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Morbidity and Mortality Weekly Report in the ASEAN Region

— Infectious Diseases

July 24, 2023 | MMWR 2023-29
Epidemiological Week 29



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Weekly Issue





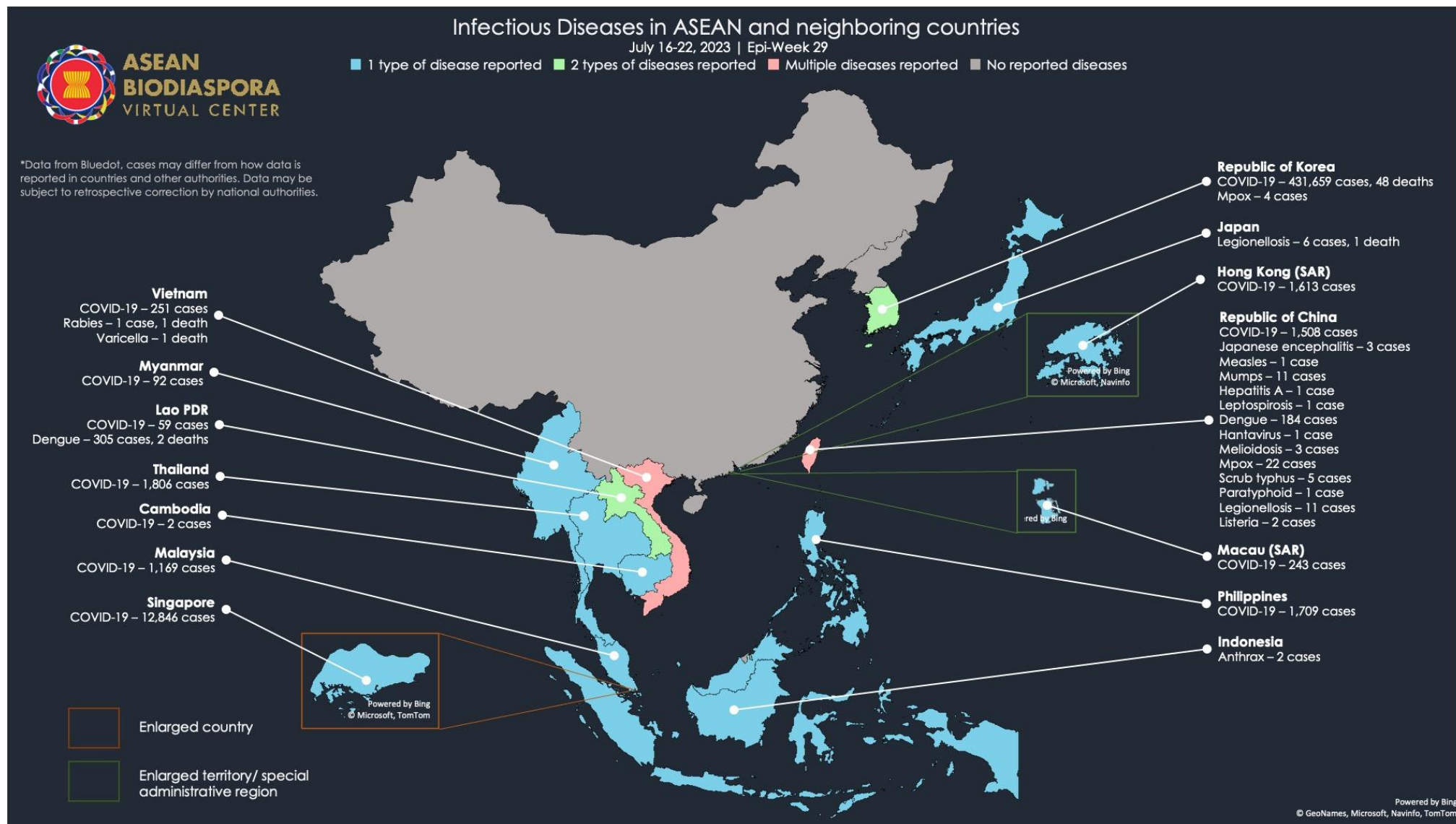
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Reported Infectious Diseases in the ASEAN Region and Neighboring Countries

Epidemiological Week 29 | July 16-22, 2023





Reported Infectious Diseases

Epidemiological Week 29 | July 16-22, 2023

Infectious Disease Global Updates

Dengue

- Jahangirnagar University, Bangladesh:** Researchers have made significant discoveries regarding the life cycle and behavior of *Aedes* mosquitoes, the carriers of the dengue fever virus (Sabbir & Savar, 2023). These findings challenge previous beliefs about their breeding grounds and biting patterns, presenting a new challenge in combating these disease-carrying mosquitoes. The study, led by Dr. Kabirul Bashar, a professor of Zoology at Jahangirnagar University, unveiled that *Aedes* mosquitoes can now breed in diverse water sources, including rainwater, saltwater, drain water, and sewage water. The research also revealed a change in the biting habits of *Aedes* mosquitoes. While they were known to primarily bite during the day and early evening, the study shows that they have now adapted to bite at night as well, albeit with lower biting rates. This shift has implications for mosquito control efforts, requiring adjustments in strategies and interventions. Another striking revelation from the study is that the eggs of *Aedes* mosquitoes can survive for an extended period, up to six to nine months, and hatch into larvae upon contact with even a small amount of water. The researchers identified 52 breeding sites, including unexpected locations like parking lots and narrow channels near building entrances. Even mega-construction sites have become breeding grounds for these mosquitoes. Furthermore, the study highlighted the issue of light pollution, noting that the increased use of bright artificial lights in cities has contributed to changes in mosquito behavior. Addressing light pollution may offer an additional approach to control mosquito activities and reduce their impact on public health. In conclusion, this groundbreaking research on *Aedes* mosquitoes sheds light on their evolving behavior and breeding habits. Understanding these changes is critical for developing effective and targeted strategies to combat dengue fever and other mosquito-borne diseases. [[Full article](#)]
- Republic of China:** This year has seen a significant surge in locally acquired dengue cases, with a total of 425 reported, the highest in a decade, according to the Centers for Disease Control (CDC) (Lee, 2023). Deputy Director Lee Chia-lin from the CDC Epidemic Intelligence Center warned that the risk of local dengue fever infection is on the rise. Older people are particularly affected, and the presence of both dengue virus serotype 1 (DENV-1) and serotype 2 (DENV-2) has been detected, emphasizing the need to be vigilant for severe complications like hemorrhaging. Last week, there were 127 local cases of dengue fever reported, with Tainan accounting for the majority, followed by Yunlin County, Kaohsiung, and Taichung. While most cases were in areas previously identified as clusters, the infection is now spreading to additional boroughs, with some cases lacking a clear source of infection. Tainan has reported a total of 362 cases so far this year, with confirmed clusters also observed in Kaohsiung's Fongshan District and Alian District. The CDC highlights that even individuals visiting other regions, like Taichung, are contracting the virus, indicating its wider spread across cities and counties. The situation warrants heightened awareness and preventive measures to control the outbreak effectively. [[Full article](#)]
- Americas:** In the first half of 2023, South America experienced significant dengue outbreaks, with 2,997,097 cases reported in the Region of the Americas (News Desk, 2023b). This is the third highest year on record, surpassing the 2.8 million cases registered in 2022. Brazil has the most cases (2,376,522), followed by Peru and Bolivia with case counts well above 100,000. All four dengue virus serotypes (DENV1, DENV2, DENV3, and DENV4) are present in the Region of the Americas. In 2023, simultaneous circulation of all



four serotypes was detected in Brazil, Colombia, Costa Rica, Guatemala, Honduras, Mexico, and Venezuela. [[Full article](#)]

Anthrax

- Nigeria:** On July 16, 2023, the Ministry of Agriculture in Nigeria confirmed anthrax in Niger state, marking the first recorded case in recent years (News Desk, 2023d). The Federal Government and Niger state government have taken proactive measures to control and contain the disease, including quarantine, deployment of 50,000 doses of anthrax vaccines, and education on symptoms, preventive measures, and how to respond. The Ministry warns livestock owners to remain vigilant, avoid contact with sick or dead animals, and avoid slaughtering sick animals. They also urge reporting sudden deaths to veterinary authorities, using personal protective equipment, practicing good biosecurity measures, and disposing of cases in an environmentally friendly manner. Anthrax is a serious bacterial pathogen in livestock and wild animals, with ruminants like bison, cattle, sheep, and goats highly susceptible. There are no reports of person-to-person transmission of anthrax, but people can get it by handling contaminated animals, consuming undercooked meat, and intentional release of spores. [[Full article](#)]
- Canada:** The government reports 28 confirmed cases of anthrax among bison in the Northwest Territories, with incineration at three carcass sites and burning at three sites (News Desk, 2023a). Flights have been conducted, but no new carcasses have been found. Anthrax has also been reported along a 10-kilometer stretch of NWT Highway 5 in Wood Buffalo National Park, with nine carcasses observed and two confirmed cases. The disease is fatal for bison and can also occur in other mammals, including humans. Anthrax occurrence in humans is extremely rare, and individuals exposed to spores should be treated with antibiotics and a few doses of the vaccine to prevent infection. [[Full article](#)]

Hepatitis A

- Mexico:** Federal health officials are investigating an outbreak of hepatitis A linked to frozen organic strawberries imported from Baja California, Mexico, by a common supplier (News Desk, 2023c). The strawberries are sold under multiple brand labels, and traceback and epidemiological investigations show that people with outbreak-associated cases purchased the same retail brand before becoming ill. As of July 18, 2023, 10 outbreak-associated cases of hepatitis A have been reported from four states: California, Hawaii, Oregon, and Washington. California Splendor, Inc. voluntarily recalled certain lots of 4-lb. bags of Kirkland Signature Frozen Organic Whole Strawberries sold at Costco stores in Los Angeles. Hepatitis A is a contagious liver infection caused by the hepatitis A virus, which is found in the stool and blood of infected individuals. [[Full article](#)]

Avian Influenza Outbreaks in Animals

- Finland:** On 19 July 2023, the Finnish Food Authority reported that avian influenza A(H5N1) was confirmed in five additional fur farms hosting blue (arctic) and silver foxes. As of 19 July 2023 and since 13 July 2023, avian influenza A(H5N1) has been detected in 10 fur farms in Finland, according to updates by the Finnish Food Authority. The farms are in the areas of Evijärvi, Halsua, Kauhava, and Kaustinen in Ostrobothnia and host foxes (blue and silver) and mink. According to the Finnish Food Authority, this is the first time avian influenza has been detected in farmed fur animals in Finland. However, two infections were previously detected in wild foxes in Finland. Introduction of avian influenza into fur farms is not unexpected if infected wild birds have been observed in the area, and measures to prevent contact between infected birds or their droppings and the farmed animals are not in place. A previous event was observed at a mink farm in Spain. It is crucial to perform virus analyses and share sequence data for analysis of markers relevant for mammalian adaptation. Transmission between foxes, or other



infected mammals, and humans has not been observed to date. Nevertheless, it is crucial to identify infected mammals and exposed people to be able to monitor them for 10–14 days, and initiate testing if symptoms occur. And humans has not been observed to date. Nevertheless, it is crucial to identify infected mammals and exposed people to be able to monitor them for 10–14 days, and initiate testing if symptoms occur. And humans has not been observed to date. Nevertheless, it is crucial to identify infected mammals and exposed people to be able to monitor them for 10–14 days, and initiate testing if symptoms occur.

- **Poland:** Update as of 17 July 2023: According to a communication posted by the Chief Veterinary Inspectorate of Poland, 61 samples from 60 cats and one caracal were tested for influenza A(H5N1) in Poland, and 34 were found positive. Genetic analyses of the positive cats indicated that the cats have developed the H5N1 virus of the CH genotype. Previously, the CH genotype virus was detected in the white stork at the beginning of June in the Tarnów province.

Infectious Disease Updates in the ASEAN Region

Varicella

- **Vietnam:** The Center for Tropical Diseases - Bach Mai Hospital in Hanoi has received numerous severe cases of chickenpox, requiring hospitalization (Thu, 2023). Two cases have died in the past month, despite no underlying disease. A 29-year-old male patient in Bac Ninh was diagnosed with severe chickenpox, liver failure, respiratory failure, and skin lesions. He has a history of gout and requires antiviral drugs, intravenous infusion, and intensive resuscitation. Doctors recommend getting vaccinated against chickenpox and being aware of disease prevention measures. Chickenpox can cause fever, headache, muscle pain, and sometimes no warning symptoms in children. The disease can cause dangerous complications, such as meningitis, hemorrhage, sepsis, nodular infection, cellulitis, and hepatitis. Some cases can be fatal if not treated promptly. Chickenpox can also cause pneumonia, encephalitis, and long-term neurological sequelae, such as deafness, developmental delay, and epilepsy. Mothers who contract chickenpox while pregnant can give birth to babies with birth defects later in life. [\[Full article\]](#)

Hand, Foot, and Mouth Disease (HFMD)

- **Vietnam:** The Ho Chi Minh City Centre for Disease Control (HCDC) has reported a significant surge in hand, foot, and mouth disease (HFMD) cases and hospitalizations in the region (Vietnam News, 2023). From July 3 to 9, 2023 (week 27), the outbreak has rapidly spread throughout the city, particularly in districts like Bình Tân, Bình Chánh, Tân Phú, District 6, and District 8, which have seen a high incidence rate of HFMD infections per 100,000 people since the beginning of the year. In the most recent week (week 27), the city recorded 1,614 HFMD cases, an alarming increase of nearly 2.5 times compared to the average of 716 cases reported four weeks earlier. The surge in cases began in May 2023, and along with the increased numbers, the severity of cases has also risen. Health experts are issuing a grim prediction, foreseeing a continued rise in both overall cases and severe HFMD cases in the coming weeks. This concerning trend may persist unless immediate and drastic preventive measures are implemented promptly. [\[Full article\]](#)

Vector-Borne Diseases



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Dengue Cases in the ASEAN Region

From January 1 to July 22, 2023 (Epi-Week 29)



Dengue cases in the ASEAN region

Country	Epi-Week Reported	Cumulative Dengue Cases	New Cases Since the Previous Report	Deaths	Case Fatality Rate (CFR)
Brunei Darussalam	-	-	-	-	-
Cambodia ²	Week 24	4,668	0	9	0.19%
Indonesia ¹	Week 28	35,694	0	270	0.76%
Lao PDR ²	Week 25	5,310	0	1	0.02%
Malaysia ²	Week 24	54,139	0	39	0.07%
Myanmar ¹	Week 23	1,717	0	7	0.41%
Philippines ³	Week 24	72,333	0	249	0.34%
Singapore ⁴	Week 29	4,793	210	0	0.00%
Thailand ²	Week 27	27,235	0	1	0.003%
Vietnam ²	Week 24	37,714	0	8	0.02%
Total		243,603	210	584	0.24%

1. BlueDot Developer Portal, accessed July 24, 2023, <https://developer-portal.blue-dot.global/>.
 2. Asian Dengue Voice and Action, "Asian Dengue Dashboard," accessed July 24, 2023, <https://www.adva.asia/asian-dengue-dashboard/>.
 3. Department of Health Website, accessed July 24, 2023 "Statistics," June 17, 2023, <https://doh.gov.ph/statistics>.
 4. National Environment Agency (NEA), accessed July 24, 2023, Dengue cases, July 21, 2023, <https://www.nea.gov.sg/dengue-zika/dengue/dengue-cases>.
 *Data were updated and collected from official sources, which may have a 2-4 weeks delay in reporting. Data must be interpreted cautiously.

- The ASEAN region reported **210** new dengue cases in Singapore since the previous report. The region reported **243,603** total cases and **584** total deaths in 2023 with **0.24%** CFR.



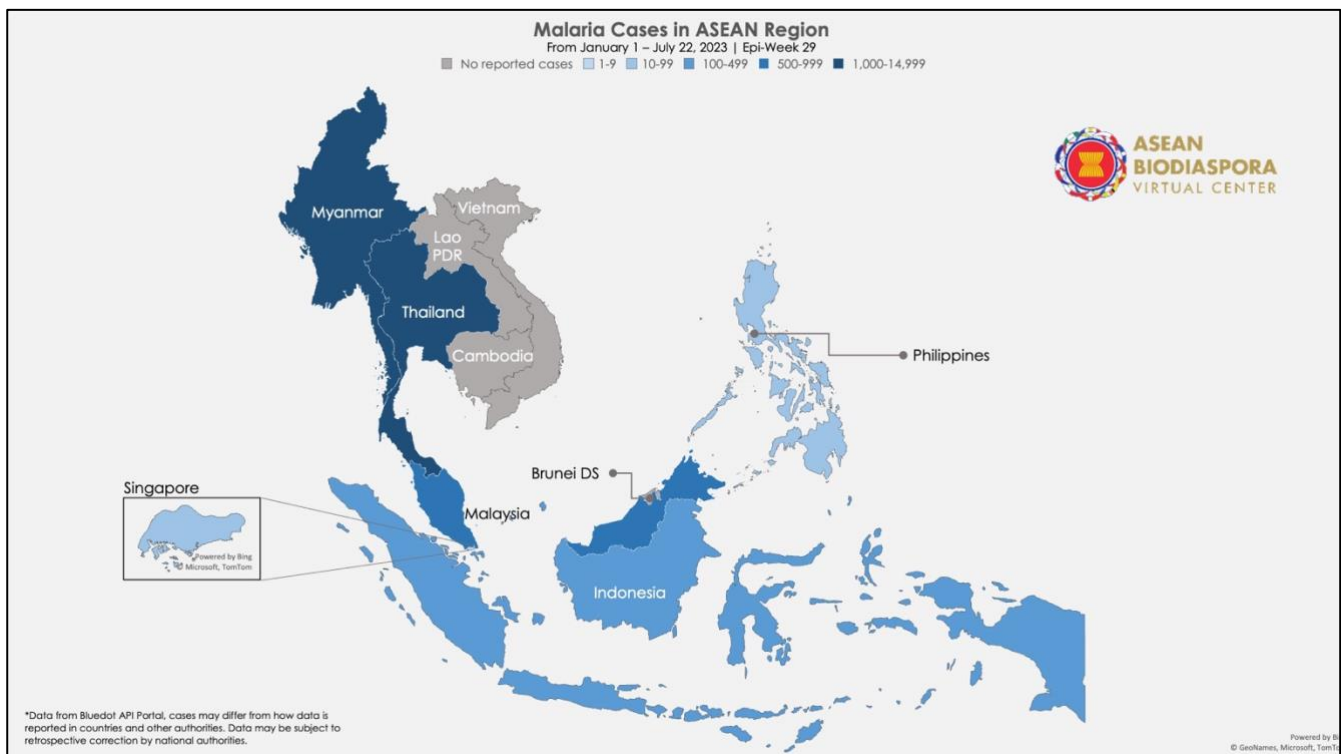
Dengue

- Vietnam:** According to data from Ho Chi Minh City Centre for Disease Control (HCDC), specific districts in the region have recorded a high incidence of dengue cases per 100,000 people since the beginning of the year until week 27 (Vietnam News, 2023). These districts include District 1, Binh Chanh District, District 8, Binh Thanh District, and Binh Tan District. During week 27, the entire city documented 237 dengue cases, which is a concerning 32% increase compared to the average of 180 cases reported four weeks earlier. Fortunately, no deaths have been recorded due to dengue fever at this point. However, the rise in severe cases necessitates significant attention and immediate action. The Department of Health warns that the yearly progression of dengue fever has already begun to increase, and the peak season is expected to last from July until the end of October each year. Surveillance reports are disturbing, indicating a high detection rate of larvae at risk points, reaching close to 48% (49 out of 103 points). This rate is expected to rise further with increased rainfall if drastic measures are not taken to control dengue risk areas. Urgent steps are needed to address the situation and mitigate the spread of dengue fever in the region. [\[Full article\]](#)
- Thailand:** Health Minister Dr. Zaliha Mustafa reported a concerning rise in dengue fever cases and fatalities in the country (Malay Mail, 2023). From January to mid-July this year, a total of 63,966 dengue fever cases, including 45 fatalities, were recorded. This indicates a substantial increase of 129.2 percent in the number of cases compared to the same period last year, while the death cases saw a 136.8 percent rise (19 cases). The Ministry of Health (MOH) is currently assessing the effectiveness of the ongoing strategy to control dengue, which involves the release of Wolbachia-infected mosquitoes. This initiative has been implemented in 28 areas, demonstrating success rates ranging from 30 to 100 percent. MOH plans to continue monitoring the effectiveness of this approach for a year or two. If proven successful, the ministry intends to roll out this method nationwide, aiming to curb the dengue outbreak and reduce the burden of the disease on public health. It is essential to implement effective measures promptly to protect the well-being of the population and address the growing dengue health challenge. [\[Full article\]](#)



Malaria Cases in the ASEAN Region

From January 1 to July 22, 2023 (Epi-Week 29)



Malaria cases in the ASEAN region

Country	Epi-Week Reported	Cumulative Malaria Cases	New Cases Since the Previous Report	Deaths	Case Fatality Rate (CFR)
Brunei Darussalam	-	-	-	-	-
Cambodia	-	-	-	-	-
Indonesia ⁵	Week 28	369	0	0	0.00%
Lao PDR	-	-	-	-	-
Malaysia ⁵	Week 22	866	0	0	0.00%
Myanmar ⁵	Week 23	4,510	0	0	0.00%
Philippines ⁵	Week 28	31	0	0	0.00%
Singapore ⁵	Week 28	8	1	0	0.00%
Thailand ⁵	Week 27	9,300	9,300	3	0.03%
Vietnam	-	-	-	-	-
Total		15,084	9,301	3	0.02%

5. BlueDot Developer Portal, accessed July 24, 2023, <https://developer-portal.bluedot.global/>.

- The ASEAN region reported **9,301** new malaria cases in Singapore and Thailand since the previous report. The region reported **15,084** total cases and **3** total deaths in 2023 with **0.02%** CFR.



Malaria

- Thailand:** Authorities in Thailand have raised concerns about the increasing number of malaria cases in the country. The Department of Disease Control (DDC) reported a notable surge of 835 cases compared to the previous week (Pattaya Mail, 2023). To address the situation, the government has issued a special warning to farmers residing near forest areas, forestry officials, soldiers patrolling border regions adjacent to forests, and hiking enthusiasts. The DDC highlighted that the current rainy season provides favorable breeding conditions for various mosquito species, particularly the night-biting Anopheles mosquitoes, which are the primary carriers of malaria. This increased mosquito activity raises the risk of malaria transmission. As per reports from the Malaria Online system, there have been approximately 9,300 cases of malaria recorded from January 1st to July 7, 2023. The provinces with the highest number of cases were Tak with 5,500 cases, Mae Hong Son with 1,000 cases, and Kanchanaburi with 945 cases. Among the affected individuals, 4,100 were Thai nationals, and 5,100 were foreigners. Unfortunately, there have been three reported fatalities so far, all occurring in Tak province. Given the gravity of the situation, authorities are working to intensify preventive measures and awareness campaigns to combat the spread of malaria and protect the health of the population, especially those residing in high-risk areas. all occurring in Tak province. Given the gravity of the situation, authorities are working to intensify preventive measures and awareness campaigns to combat the spread of malaria and protect the health of the population, especially those residing in high-risk areas. all occurring in Tak province. Given the gravity of the situation, authorities are working to intensify preventive measures and awareness campaigns to combat the spread of malaria and protect the health of the population, especially those residing in high-risk areas. [\[Full article\]](#)

Vaccine- Preventable Diseases

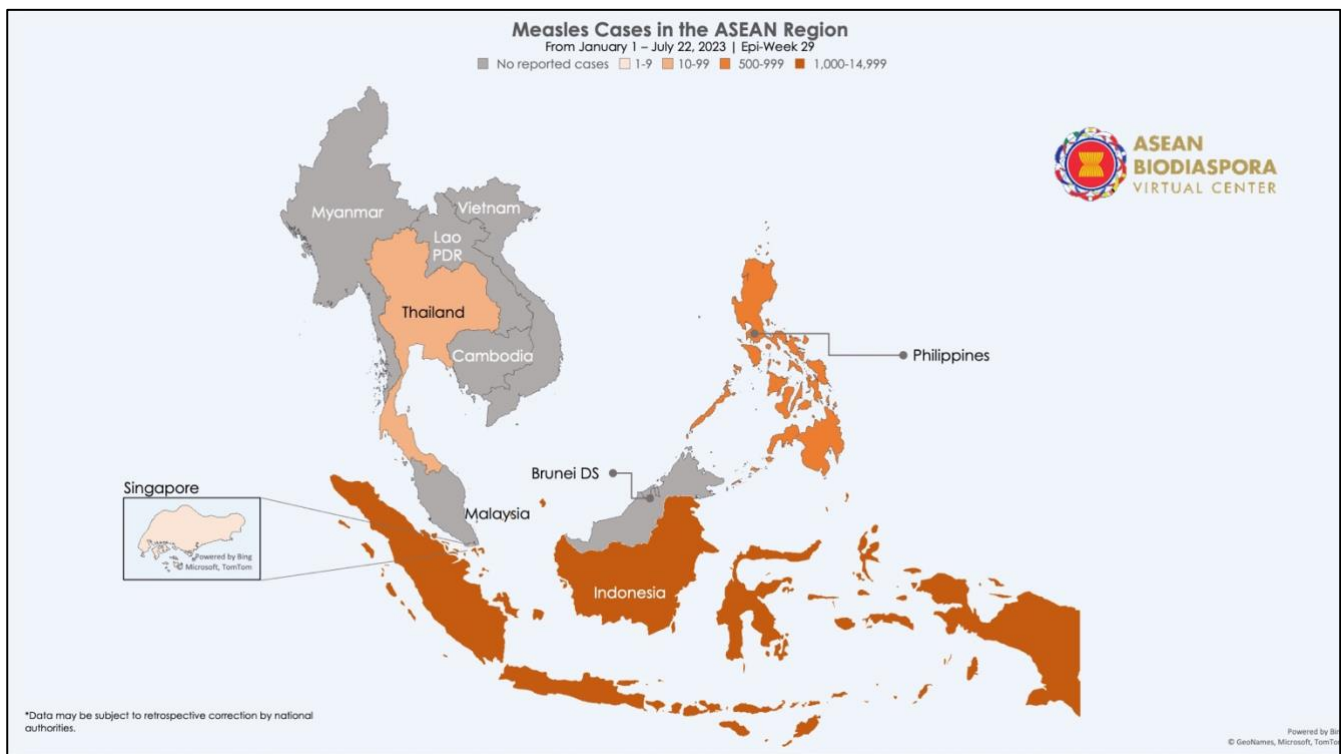


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Measles Cases in the ASEAN Region

From January 1 to July 22, 2023 (Epi-Week 29)



Measles cases in the ASEAN region

Country	Epi-Week Reported	Cumulative Measles Cases	New Cases Since the Previous Report	Deaths	Case Fatality Rate (CFR)
Brunei Darussalam	-	-	-	-	-
Cambodia	-	-	-	-	-
Indonesia ⁶	Week 14	2,161	0	17	0.79%
Lao PDR	-	-	-	-	-
Malaysia	-	-	-	-	-
Myanmar	-	-	-	-	-
Philippines ⁷	Week 24	730	0	2	0.27%
Singapore ⁶	Week 24	6	0	0	0.00%
Thailand ⁶	Week 16	73	0	0	0.00%
Vietnam	-	-	-	-	-
Total		2,970	0	19	0.64%

6. BlueDot Developer Portal, accessed July 24, 2023, <https://developer-portal.bluedot.global/>.

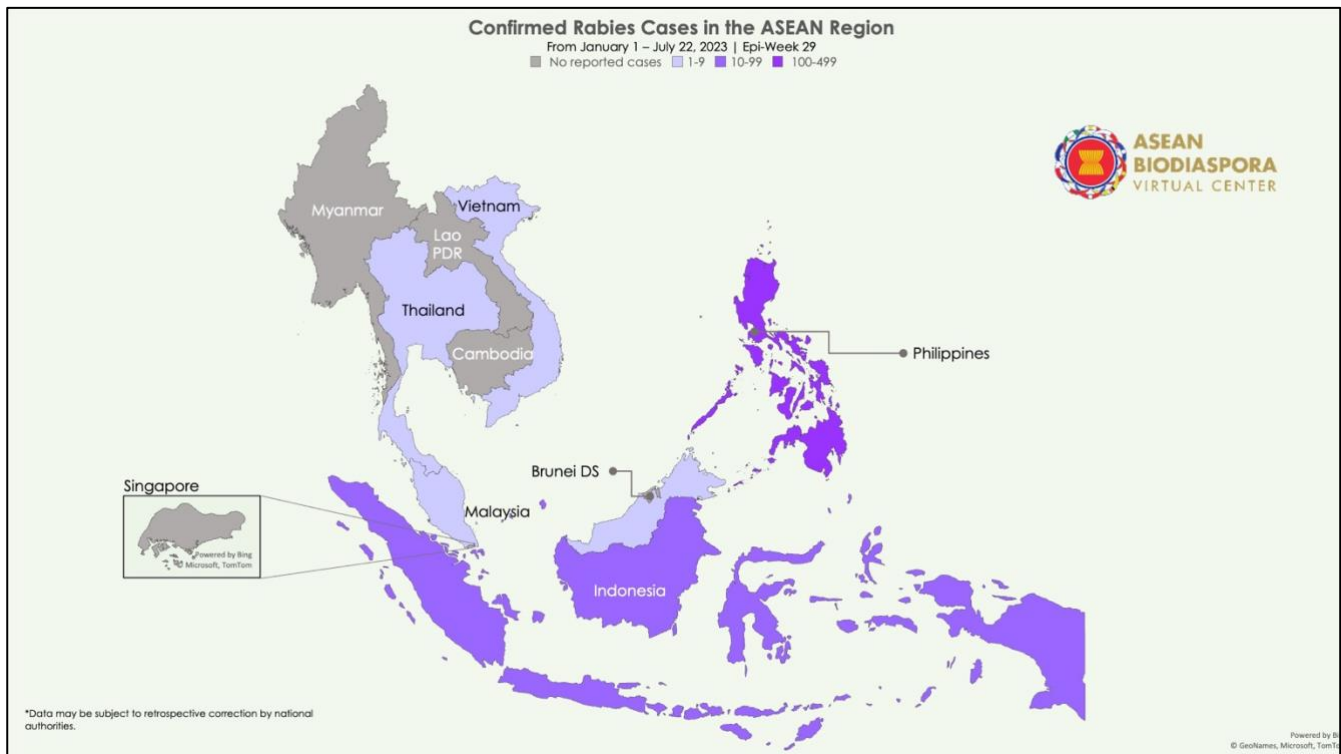
7. Department of Health Website, accessed July 24, 2023 "Statistics," June 17, 2023, <https://doh.gov.ph/statistics>.

- The ASEAN region reported **NO** new measles cases since the previous report. The region reported **2,970** total cases and **19** total deaths in 2023 with **0.64%** CFR.



Rabies Cases in the ASEAN Region

From January 1 to July 22, 2023 (Epi-Week 29)



Rabies cases in the ASEAN region

Country	Epi-Week Reported	Reported Rabies Cases	Confirmed Rabies Cases	Rabies-Related Deaths
Brunei Darussalam	-	-	-	-
Cambodia	-	-	-	-
Indonesia ⁸	Week 29	302	16	47
Lao PDR	-	-	-	-
Malaysia ⁸	Week 26	15	9	13
Myanmar	-	-	-	-
Philippines ⁹	Week 24	171	171	171
Singapore	-	-	-	-
Thailand ⁸	Week 21	3	3	3
Vietnam ⁸	Week 29	9	8	6
Total		500	207	240

8. BlueDot Developer Portal, accessed July 24, 2023, <https://developer-portal.bluedot.global/>.

9. Department of Health Website, accessed July 24, 2023 "Statistics," June 17, 2023, <https://doh.gov.ph/statistics>.

- The ASEAN region reported **500** rabies cases, **207** confirmed rabies cases, and **240** rabies-related deaths.



Rabies

- **Indonesia:** The Landak Regency Government has declared an Extraordinary Event (KLB) status for rabies due to bites from pets, resulting in the deaths of three people (William, 2023). The outbreak affected 447 victims, with 13 victims dying. Head of the West Kalimantan Province Plantation and Livestock Service (Disbunnak) Heronimus Hero stated that two districts/cities have had outbreaks, Landak and Sintang. Heronimus acknowledged that all vaccines had been distributed, but the number of rabies-infected animals is still below the number of infected animals. He requested the center to increase the vaccine, but the procurement process is not instantaneous. He urged the public to pay more attention to bite cases and report them to a health worker. The community's role is crucial, and the SOP is clear if they have reported it to a health worker. [[Full article](#)]



References

- Lee, I. (2023, July 18). *Dengue case total hits 10-year high, CDC says*. Taipei Times. <https://www.taipeitimes.com/News/taiwan/archives/2023/07/19/2003803407>
- Malay Mail. (2023, July 23). *Dr zaliha: 45 fatalities from Dengue recorded in Malaysia from jan to mid-July this year*. <https://www.malaymail.com/news/malaysia/2023/07/23/dr-zaliha-45-fatalities-from-dengue-recorded-in-malaysia-from-jan-to-mid-july-this-year/81286>
- News Desk. (2023a, July 19). *Canada: Anthrax outbreaks in the Northwest Territories, Dozens of bison affected - Outbreak News Today*. Outbreak News Today. Retrieved July 24, 2023, from <http://outbreaknewstoday.com/canada-anthrax-outbreaks-in-the-northwest-territories-dozens-of-bison-affected-87633/>
- News Desk. (2023b, July 19). *Dengue cases near 3 million in the Americas in first half of 2023 - Outbreak News Today*. Outbreak News Today. Retrieved July 24, 2023, from <http://outbreaknewstoday.com/dengue-cases-near-3-million-in-the-americas-in-first-half-of-2023/>
- News Desk. (2023c, July 21). *Hepatitis A: Multistate outbreak linked to frozen organic strawberries - Outbreak News Today*. Outbreak News Today. Retrieved July 24, 2023, from <http://outbreaknewstoday.com/hepatitis-a-multistate-outbreak-linked-to-frozen-organic-strawberries-63577/>
- News Desk. (2023d, July 17). *Nigeria officials report anthrax outbreak in Niger state - Outbreak News Today*. Outbreak News Today. Retrieved July 24, 2023, from <http://outbreaknewstoday.com/nigeria-officials-report-anthrax-outbreak-in-niger-state-93409/>
- Pattaya Mail. (2023, July 21). *Thailand's DDC concerned over rising malaria cases*. <https://www.pattayamail.com/thailandnews/thailands-ddc-concerned-over-rising-malaria-cases-436361>
- Sabbir, A. I., & Savar, S. (2023, July 15). *Dengue nightmare: Aedes mosquitoes evolved, now more lethal*. Dhaka Tribune. <https://www.dhakatribune.com/bangladesh/2023/07/15/dengue-nightmare-aedes-mosquitoes-evolved-now-more-lethal>
- Thu, D. (2023, July 17). *Many severe cases of chickenpox were hospitalized, 2 patients died*. <https://baomoi.com>. <https://baomoi.com/nhieu-ca-thuy-dau-nang-nhap-vien-da-co-2-benh-nhan-tu-vong/c/46379985.epi>
- Vietnam News. (2023, July 19). *HCM city faces burden of hand, foot, Mouth Disease and dengue fever*. <https://vietnamnews.vn/society/1551273/hcm-city-faces-burden-of-hand-foot-mouth-disease-and-dengue-fever.html>
- William. (2023, July 21). *Rabies, Hedgehog and Sintang Outbreaks of Two Regencies Set*. Sonora Indonesia. Retrieved July 24, 2023, from <https://www.sonora.id/read/423844047/dua-kabupaten-ditetapkan-klb-rabies-landak-dan-sintang>



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