ASEAN Biodiaspora Virtual Center Morbidity and Mortality Weekly Report Infectious and Emerging Diseases



ASEAN REGION

February 07, 2024 | MMWR 2024-05 Epidemiological Week 5

With Support by:









This report aims to provide the current situation on infectious and emerging diseases in the ASEAN Region. We collate various information from multiple official sources and publicly available sources and is published every week on Wednesday. For feedback and/or suggestions, please write to support@biodiaspora.org

Editorial

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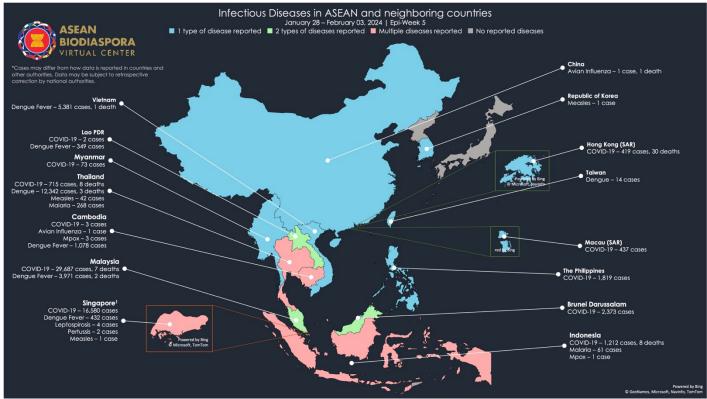
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Key Findings

- COVID-19 cases and deaths have increased by 52,464 and 23, respectively, since the last report in the ASEAN region.
- The JN.1, which is subtypes of BA.2.86, remains a dominant variant of interest spreading in the ASEAN region until January 2024.
- There are **five** mpox new cases in the ASEAN region since last report.
- Dengue cases has increased by 23,553 since the last report. Meanwhile, 329 new malaria cases has been found since the last report for vector-borne diseases in the ASEAN region.
- There have been 43 new cases of measles since the last report of vaccine-preventable diseases in the ASEAN region.

Reported Infectious Diseases in the ASEAN Region and Neighboring Countries Epidemiological Week 5 | January 28 - February 03, 2024



**The data was taken from the BlueDot Developer Portal, accessed February 06, 2024, https://developer-portal.bluedot.global/.

Ministry of Health Singapore, "Weekly Infectious Diseases Bulletin," Ministry of Health, https://www.moh.gov.sg/resources-statistics/infectious-disease-statistics/2023/weekly-portal.bluedot.global/. infectious-diseases-bulletin.



EMERGING DISEASES

COVID-19: Highlights and Situation Overview

- As of 3 February 2024 (5PM, GMT+7), there were **702,725,332** confirmed cases **worldwide**, including **6,978,798 deaths**. Globally, Case Fatality Rate (CFR) was **0.99%**.
- 36,964,408 total confirmed cases of COVID-19 have been reported in the ASEAN Region.
- The CFR in the **ASEAN** Region was **1.00%**.

COVID-19 cases in the ASEAN region since 2020

ASEAN MEMBER STATES	FIRST CONFIRMED CASES	LATEST REPORT ON CONFIRMED	CUMULATIVE CASES	CUMULATIVE CASES IN 2023	NEW CASES SINCE LAST REPORT	CUMULATIVE DEATHS	NEW DEATHS SINCE LAST REPORT	CUMULATIVE CASES/ 100,000
Brunei Darussalam	10-Mar-20	2-Feb-24	340,942	79,502	2,373	225	0	76,542
Cambodia	27-Jan-20	1-Feb-24	139,085	647	3	3,056	0	810
Indonesia	02-Mar-20	3-Feb-24	6,826,750	115,047	1,212	162,033	8	2,446
Lao PDR	24-Mar-20	3-Feb-24	218,917	1,331	2	758	0	2,926
Malaysia	25-Jan-20	29-Jan-24	5,257,009	253,117	29,687	37,347	7	15,890
Myanmar	23-Mar-20	2-Feb-24	641,687	8,112	73	19,495	0	1,162
Philippines	30-Jan-20	21-Jan-24	4,140,383	141,371	1,819	66,864	0	3,680
Singapore	23-Jan-20	22-Jan-24	2,994,295	807,621	16,580	1,933	0	50,379
Thailand	13-Jan-20	29-Jan-24	4,765,718	46,810	715	34,555	8	6,801
Vietnam	23-Jan-20	31-Oct-23	11,624,114	100,747	0	43,206	0	11,747
		ASEAN REGION	36,964,408	1,554,305	52,464	369,472	23	5,432

REGIONS	TOTAL CONFIRMED CASES	NEW CASES	TOTAL DEATHS	NEW DEATHS
AFRICA	12,859,319	176	258,884	0
AMERICAS	200,583,953	131,702	3,035,740	1,983
ASEAN	36,964,408	22,382	369,472	94
ASIA & OCEANIA	199,259,586	46,001	1,215,914	397
EUROPE	253,058,066	46,821	2,098,788	3,181
GLOBAL TOTAL	702,725,332	247,082	6,978,798	5,655

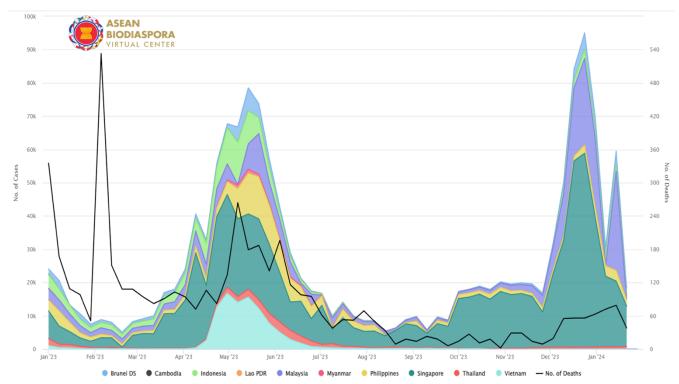
^{**}Data Reference: Worldometer, WHO

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ASEAN Weekly COVID-19 New Cases and Deaths

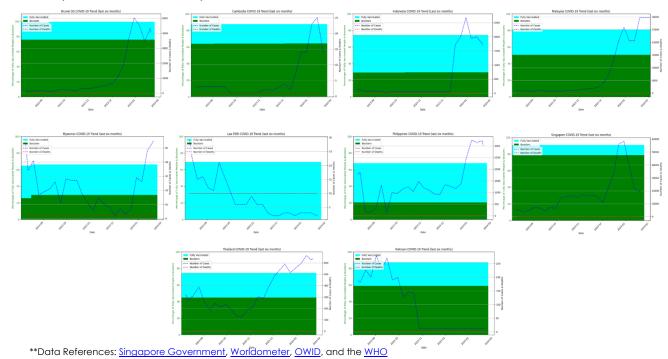
From January 1, 2023 to February 03, 2024



^{**}Data References: Singapore Government, Worldometer, and the WHO

Trends of COVID-19 Cases, Deaths, and Vaccine Coverage among AMS

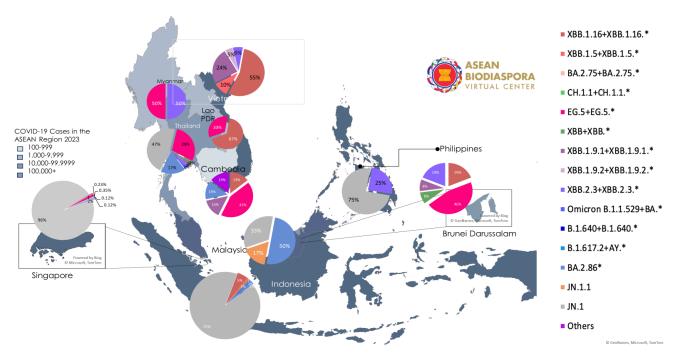
From July 1, 2023 to February 03, 2024



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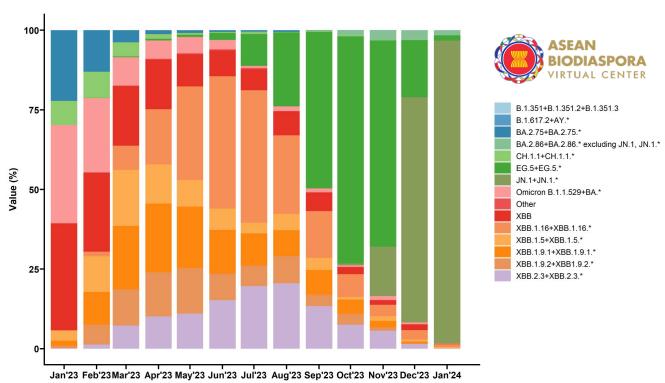
COVID-19 Variants Frequencies Among the ASEAN Member States In January 2024



GISAID. "hCoV-19 Variants Dashboard," accessed February 06, 2024, https://gisaid.org/hcov-19-variants-dashboard/.

COVID-19 Variants Frequencies in the ASEAN Region

From January 2023 to January 2024



GISAID. "hCoV-19 Variants Dashboard," accessed February 06, 2024, https://gisaid.org/hcov-19-variants-dashboard/.

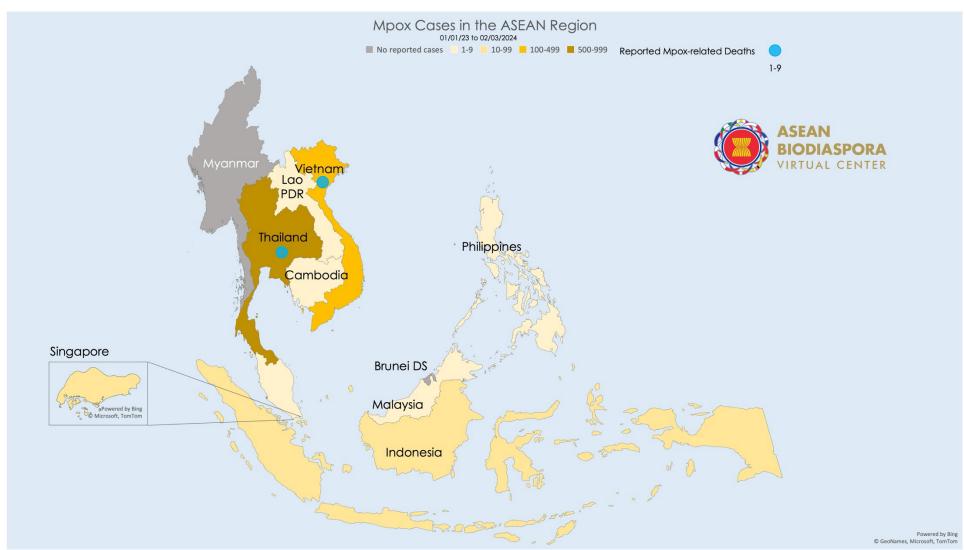
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Mpox Cases Reported in the ASEAN Region

January 1, 2023 - February 03, 2024



Ministry of Health Republic of Indonesia

2. EBS Bluedot (Accessed on February 06, 2024)

3. Ministry of Health Singapore, accessed February 06, 2024, https://www.moh.gov.sg/resources-statistics/infectious-disease-statistics/2023/weekly-infectious-diseases-bulletin

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Mpox: Highlights and Situation Overview

- From 1 January 2023 to 03 February 2024, 10,096 confirmed cases worldwide since 2023, including 117 deaths. Globally, the CFR was 1.16%.
- 941 confirmed cases including seven deaths in the ASEAN region, with a CFR of 0.74%.
- 9,155 confirmed cases of mpox have been reported in other regions (other than the ASEAN region):

Mpox cases in the ASEAN region (Jan. 1, 2023 to Feb. 03, 2024)

ASEAN Member States	Cumulative Cases 2023-2024	New Cases Since Previous Report	Cumulative Deaths 2023	CFR
Cambodia ¹	6	3	0	0.00%
Indonesia ²	80	2	0	0.00%
Lao PDR ¹	1	0	0	0.00%
Malaysia ¹	9	0	0	0.00%
Philippines ¹	5	0	0	0.00%
Singapore ³	32	0	0	0.00%
Thailand ¹	673	0	1	0.15%
Vietnam ¹	135	0	6	4.44%
ASEAN Total	941	5	7	0.74%

EBS Bluedot (Accessed on February 06, 2024)

Top 5 countries with the most mpox cases globally (Jan. 1, 2023 to Feb. 03, 2024)

Country	Cumulative Cases 2023	New Cases Since Previous Report	Cumulative Deaths 2023	CFR
People's Republic of China	2,020	1	1	0.05%
United States of America	1,856	213	36	1.94%
Democratic Republic of Congo	761	7	2	0.26%
Thailand	673	29	1	0.15%
Brazil	456	0	2	0.44%

^{**}Edouard Mathieu, Fiona Spooner, Saloni Dattani, Hannah Ritchie and Max Roser (2022) - "Mpox (monkeypox)". Published online at OurWorldInData.org. Retrieved from: 'https://ourworldindata.org/monkeypox' [Online Resource]

Mpox cases per region (Jan. 1, 2023 to Feb. 03, 2024)

REGIONS	CUMULATIVE CASES 2023	NEW CASES SINCE THE PREVIOUS REPORT	CUMULATIVE DEATHS 2023	CFR
AFRICA	917	0	7	0.76%
AMERICAS	3,883	0	85	2.19%
SEAN 941		5	7	0.74%
ASIA & OCEANIA	3,370	0	16	0.47%
EUROPE	985	36	2	0.20%
TOTAL	10,096	41	117	1.16%

Ministry of Health Republic of Indonesia

Ministry of Health Singapore, accessed February 06, 2024, https://www.moh.gov.sg/resources-statistics/infectious-disease-statistics/2023/weekly-infectious-disease-sbulletin



Media Monitoring for Emerging Diseases

Epidemiological Week 5 | January 28 - February 03, 2024

Global Situation for Emerging Diseases

COVID-19

- **Bangladesh** has reported 49 COVID-19 positive cases and zero deaths, with 8.07% positive cases since 31 January 2024 (BSS, 2024). The virus has killed 29,482 people and infected 2,047,199. The recovery count increased to 2,014,443 as 19 patients were discharged. 98.40% of COVID-19 patients recovered, while 1.44% died. [Full article]
- India experienced a single-day rise in COVID-19 cases, with 1,333 active cases, according to the Union Ministry of Health (ETHealthworld, 2024). The number of daily cases dropped to double-digits until December 5, but increased after the emergence of a new variant and cold weather conditions. A maximum of 841 new cases were reported on December 31, 2023, with 92% of active cases under home isolation. India has experienced three waves of COVID-19, with the peak incidence occurring during the delta wave in April-June 2021. [Full article]
- **Japan:** The Ministry of Health (MoH) reported 60,268 new COVID-19 cases for the week ending January 21, marking the ninth consecutive seven-day increase (Fujitani, 2024). The number of cases per institution increased by 1.36 times from the previous week, with hospitalized patients doubling from the end of last year. The highest number of cases was 18.99 in Fukushima, followed by Ibaraki and Aichi. [Full article]
- **Russia:** From January 22 to 28, COVID-19 incidence in Russia decreased by 4.1%, with 111 deaths reported (Interfax.ru, 2024). The incidence rate per 100,000 population was 16.5, with an increase in cases in 22 Russian Federation entities, including seven regions more than the national average. Hospitalizations totaled 2,924, down 10% from the previous week. In Moscow, 6,505 people were infected, with 585 hospitalized and 18 deaths. The number of cases increased by 28.4% from January 15 to 21. [Full article]
- Taiwan: The domestic COVID-19 epidemic is at its peak, with 64 new deaths in a single week from January 23 to 29 (Zhengwei, 2024). The proportion of local JN.1 virus strain has increased to 52%, surpassing EG.5, becoming the mainstream virus strain in China. The Department of Disease Control and Prevention's deputy director stated that the current national vaccination rate reaches 6.23%, with the elderly over 65 years old reaching 14.77%. The majority of virus strains detected overseas are JN.1, accounting for 78%. The number of confirmed local cases and deaths has reached a new high in the past five months, with 90% of death cases being elderly people over 65 years old. [Full article]
- The **United States (US)**: Ohio's COVID-19 cases decreased from 7,719 to 7,468 this week, marking the fourth consecutive decrease (Washington, 2024). At least 1,264,340 Ohioans received the updated one-dose vaccine, representing 10.8% of the state's population. The number of hospitalizations and ICU admissions increased by 247 and 13, respectively, while deaths from COVID-19 related issues rose to 43,517. The state reported a total of 3,698,152 cases and 14,589. [Full article]

Mpox

• Australia: Victoria has recorded its first mpox case in six months, indicating local transmission (Sciberras A, 2024). The disease, caused by a virus endemic to a few African countries before a global outbreak in May 2022, predominantly affects men who have sex with men. The state recorded 70 cases of mpox in 2022, but with the mpox vaccination program, that number fell to eight in 2023. Acting Chief Health Officer advised people to stay home, restrict contact with others, and book an appointment with their general practitioner or nearest sexual health

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service if they develop symptoms. The mpox vaccine is free and available through over 250 providers across Victoria. [Full article]

• Italy: New cases of mpox have been confirmed in the Florence area, with 11 confirmed cases, all male, and likely contracted through promiscuous sexuality (Artiaco I, 2024). The infection is transmitted through close contact, especially sexual, and can also occur through clothing. The cases emerged in the second half of January, with seven from various provinces in the region being involved in a nightclub in the Florence hinterland on New Year's Eve. The European Center for Disease Prevention and Control (ECDC) and the World Health Organization (WHO) reported 138 cases in Europe between mid-December and mid-January, with Spain leading with 68 cases. Since the start of the epidemic in spring 2022, 26,703 cases have been diagnosed in Europe. [Full article]

Nipah

• **Bangladesh:** Two deaths have been reported due to Nipah virus in Manta and Ghosta villages of Manikganj Sadar upazila (Rahman, 2024). A man fell ill after consuming raw juices of date and died while undergoing treatment at Dhanmondi Popular Hospital in Dhaka and a woman also died at the same hospital on January 16 after consuming date juice. [Full article]

Regional Situation for Emerging Diseases

COVID-19

- Cambodia reported two new COVID-19 cases, raising the total to 139,085 (Chivorn, 2024). No deaths were reported, with 3,056 fatalities. Over 15.3 million doses of vaccines have been administered, with over 10 million shots for people aged 18 and above. The MoH is accelerating the inoculation of the sixth dose among citizens, as the country has already recorded COVID-19 infections with Omicron BA.4, BA.5 sub-variants, and JN.1 variant. [Full article]
- Indonesia: Three South Sumatra residents died from COVID-19 last week, with four more confirmed cases (Pahlevi, 2024). The deaths were attributed to comorbidities. The South Sumatra Health Office reported that there are currently 28 active cases, with 24 people isolating at home. Currently, 84.5% of South Sumatra residents have received vaccinations. [Full article]
- **Philippines:** The Department of Health reported 1,600 new COVID-19 cases from January 23 to 29, a 26% decrease from the previous week. 30 severe cases are critical, and 13 deaths occurred (Makati, 2024). The agency emphasized the importance of implementing protective measures to limit transmission. [Full article]

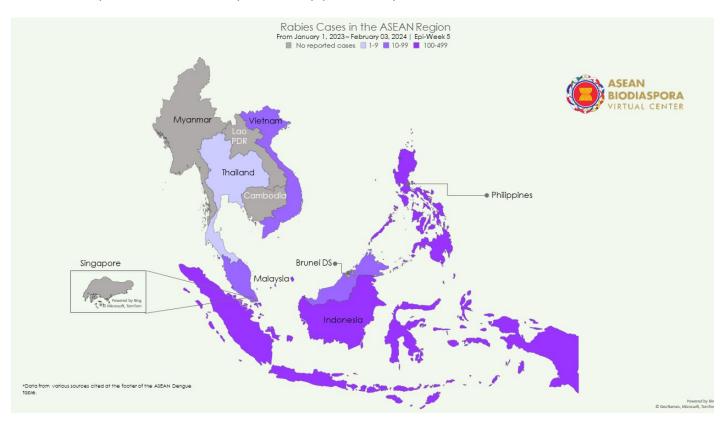
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ZOONOSIS

Rabies Cases in the ASEAN Region

From January 1, 2023 to February 03, 2024 (Epi-Week 5)



Rabies cases in the ASEAN region

Country	Epi-Week Reported	Cumulative Rabies Cases	New Cases Since Previous Report	Cumulative Deaths	CFR
Brunei Darussalam		Rc	abies-free country		
Cambodia	-	-	-	-	-
Indonesia ¹	Week 5	152	0	152	100%
Lao PDR	-	-	-	-	
Malaysia ²	Week 4	25	0	25	100%
Myanmar	-	-	-	-	
Philippines ³	Week 48 '23	368	0	368	100%
Singapore		F	Rabies-free countr	У	
Thailand ⁴	Week 4	6	0	6	100%
Vietnam ²	Week 52' 23	82	0	82	100%
Total		633	0	633	100%

- Ministry of Health, Republic of Indonesia

- BlueDot Developer Portal, accessed February 06, 2024, https://developer-portal.bluedot.global/. Department of Health Website, accessed February 06, 2024 "Statistics," https://doh.gov.ph/statistics. Bureau of Epidemiology, Department of Disease Control, Ministry of Public Health Thailand, accessed February 06, 2024, https://doe.moph.go.th/surdata/index.php

The ASEAN region reported NO new rabies cases since the previous report. The region reported 633 total cases with 100% CFR.



Media Monitoring for Zoonosis

Epidemiological Week 5 | January 28 - February 03, 2024

Global Situation for Zoonosis

Avian Influenza

• China: A 63-year-old female from Xuancheng, Anhui Province, died after contracting avian influenza A (H10N5) and H3N2 in Zhejiang Province (Herriman, 2024). The virus was isolated from case specimens in January 2024. The H10N5 infection is the first known case in a human, and most H10 infections involve exposure to infected poultry. The virus is of poultry origin and has not been effective in infecting humans. Experts recommend avoiding contact with sick and dead poultry, dietary hygiene, and self-protection awareness. [Full article]

Regional Situation for Zoonosis

Avian Influenza

Cambodia: A three-year-old boy in Cambodia's southeast Prey Veng province has been confirmed for H5N1 human avian influenza, the first case in the Southeast Asian nation this year (VNA, 2024). The boy is receiving intensive care and is receiving anti-virus drug to prevent the bird flu from spreading. The MoH is investigating the source of the infection and examining suspected cases to prevent an outbreak. Since 2003, Cambodia has reported 63 cases of H5N1 influenza in humans. [Full article]

Rabies

• Malaysia: A woman and two men have died from rabies in Sarawak, bringing the total deaths to 71 out of 78 human cases since the outbreak was declared in July 2017 (Ling, 2024). The victims were bitten by stray dogs and cats, and did not receive treatment or anti-rabies vaccination. Of the cumulative 78 human cases in the state, 38 were caused by pet dogs, 20 from stray dogs, five from pet cats, and one from a stray cat. The cause of rabies in the remaining 14 cases is unknown. The State Health Department Director advised the public to seek immediate treatment if bitten or scratched and advised against rabies prevention through the anti-rabies vaccine and rabies immunoglobulin jab. [Full article]

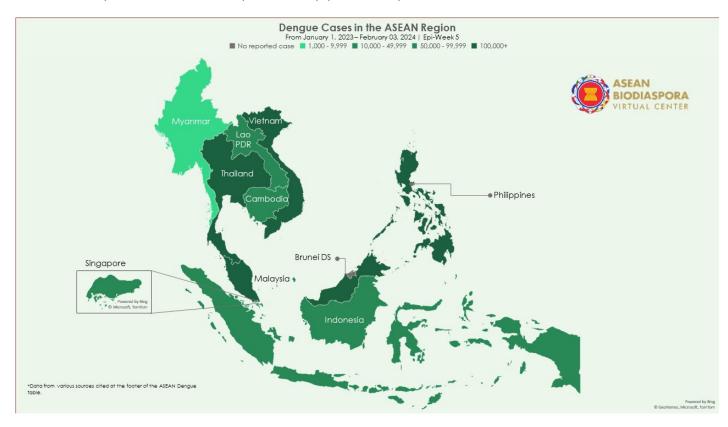
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VECTOR-BORNE DISEASES

Dengue Cases in the ASEAN Region

From January 1, 2023 to February 03, 2024 (Epi-Week 5)



Dengue cases in the ASEAN region

Country	Epi-Week Reported	Cumulative Dengue Cases	New Cases Since the Previous Report	Cumulative Deaths	New Deaths	CFR
Brunei Darussalam	=	=	=	-	-	-
Cambodia ¹	Week 2	36,468	1,078	99	0	0.27%
Indonesia ²	Week 3	99,253	0	764	0	0.77%
Lao PDR ¹	Week 3	32,523	349	20	0	0.06%
Malaysia ³	Week 3	133,810	3,971	102	2	0.08%
Myanmar ⁴	Week 28 '23	6,685	0	30	0	0.45%
Philippines ⁵	Week 48 '23	195,603	0	657	0	0.34%
Singapore ⁶	Week 4	11,491	432	0	0	0.00%
Thailand ⁷	Week 4	170,927	12,342	184	3	0.11%
Vietnam ¹	Week 52 '23	172,000	5,381	43	1	0.03%
Total		858,760	23,553	1,899	6	0.22%

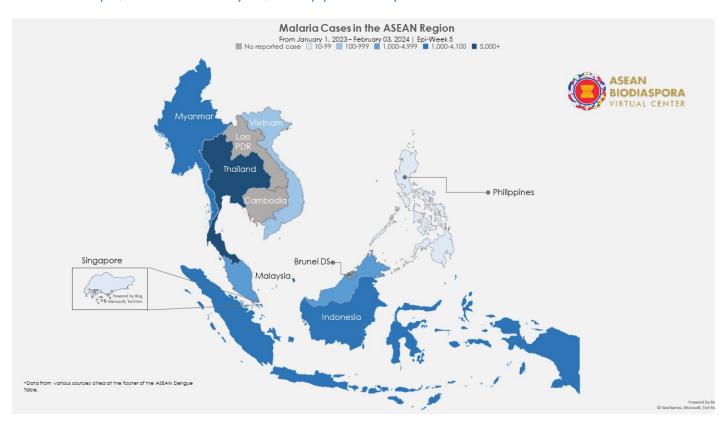
- WHO WPRO, "Dengue," World Health Organization, accessed February 06, 2024, https://www.who.int/westernpacific/emergencies/surveillance/dengue. Ministry of Health, Republic of Indonesia
- Disease Control Division, Ministry of Health Malaysia, accessed February 06, 2024. https://www.moh.gov.my/index.php/database stores/store-view/17
 BlueDot Developer Portal, accessed February 06, 2024, https://developer-portal.bluedot.global/. 3. 4.
- Department of Health Website, accessed February 06, 2024 "Statistics," https://doh.gov.ph/statistics.

 Ministry of Health. "Weekly Infectious Disease Bulletin", accessed February 06, 2024. https://www.moh.gov.sg/resources-statistics/infectious-disease-
- 7. Bureau of Epidemiology, Department of Disease Control, Ministry of Public Health Thailand, accessed February 06, 2024, http://doe.moph.go.th/surdata/index.php
 *Data were updated and collected from official sources, which may have a 2-8 weeks delay in reporting. Data must be interpreted cautiously.
- The ASEAN region reported 23,553 new dengue cases in Cambodia, Lao PDR, Malaysia, Singapore, Thailand, and Vietnam – six new deaths. The region reported 858,760 total cases with 0.23% CFR.



Malaria Cases in the ASEAN Region

From January 1, 2023 to February 03, 2024 (Epi-Week 5)



Malaria cases in the ASEAN region

Country	Epi-Week Reported	Cumulative Malaria Cases	New Cases Since the Previous Report	Cumulative Deaths	CFR
Brunei Darussalam	-	-	-	-	-
Cambodia	-	-	-	-	-
Indonesia ¹	Week 5	1,962	61	0	0.00%
Lao PDR	-	-	-	-	-
Malaysia ¹	Week 45 '23	1,116	0	0	0.00%
Myanmar ¹	Week 23 '23	4,510	0	0	0.00%
Philippines ¹	Week 28 '23	31	0	0	0.00%
Singapore ³	Week 4	27	0	0	0.00%
Thailand ²	Week 4	5,348	268	4	0.07%
Vietnam ¹	Week 42 '23	349	0	1	0.29%
Total		13,343	329	5	0.04%

- BlueDot Developer Portal, accessed February 06, 2024, https://developer-portal.bluedot.global/.
- Bureau of Epidemiology, Department of Disease Control, Ministry of Public Health Thailand, accessed February 06, 2024, https://doe.moph.go.th/surdata/index.php Ministry of Health Singapore, accessed February 06, 2024, <a href="https://www.moh.gov.sg/resources-statistics/infectious-disease-statistics/2023/weekly-infectious-disease-statistics/2023/weekl
- <u>bulletin</u>

The ASEAN region reported 329 new malaria case in Indonesia and Thailand since the previous report. The region reported 13,343 total cases with 0.04% CFR.



Media Monitoring for Vector-borne Diseases

Epidemiological Week 5 | January 28 - February 03, 2024

Global Situation for Vector-borne Diseases

Dengue

- Bangladesh has admitted 22 new dengue patients in January 26, increasing the number of
 infections since January to 981 (Desk N, 2024). The death toll remains at 14, with Dhaka
 accounting for 50 of the 135 patients undergoing treatment. The outbreak, which began in
 2023, is attributed to rising temperatures and inadequate mosquito control measures. Experts
 predict dengue may continue to affect Bangladesh throughout the year. [Full article]
 - Since January 29, 15 people have been hospitalized due to dengue in the country, with 35 people admitted this year (Reporter O, 2024). No deaths have been reported, and 14 people have died. Currently, 119 dengue patients have been admitted, with 36 in Dhaka and 83 in other hospitals. [Full article]
- **India:** In 2023, the number of dengue patients in six districts of East Vidarbha increased four times compared to 2022, with most cases from Nagpur municipal limits (TLN Team, 2024). The Pune office of the Public Health Department reported 5,527 suspected cases in 2022, with 2,365 diagnosed in 2023. [Full article]
- Mauritius: Dengue cases have reached 105 in Port Louis and its vicinity, with 70 active cases in the region (Jones A, 2024). The Minister of Health and Wellness highlighted the disease's effects and recommended hospitalization for one week. Precautionary measures include eliminating still water, mowing grasses, and ensuring a clean environment. Climate conditions are promoting mosquito propagation, and fogging exercises and sensitization campaigns are being carried out. Over 50% of cases are asymptomatic, with children and the elderly being more vulnerable. [Full article]

Malaria

Pakistan: A report by the Khyber Pakhtunkhwa Health Department shows a 300% increase in malaria cases in 2023, with over 500,000 people expected to be infected (Daily Times, 2024). The highest number of cases is reported in Shangla district, followed by D.I. Khan. The abnormal spike is attributed to prolonged rains and floods, which provide breeding grounds for mosquitoes. Around two million nets have been distributed to protect people. [Full article]

Melioidosis

• Australia: Northern Territory (NT) Health is urging Territorians to be vigilant for melioidosis, a disease caused by the Burkholderia pseudomallei bacterium (Mirage News, 2024). Since the start of the wet season on 1 October 2023, 22 cases and two deaths have been reported in the NT, with six cases diagnosed in the past week. More cases are expected throughout the wet season. If left untreated, melioidosis can lead to severe pneumonia and blood poisoning, with around 10% of infections leading to death. The risk is higher in those with immunocompromised conditions. Precautions against melioidosis include wearing waterproof footwear, gloves, washing and covering sores, wearing face masks, staying indoors during heavy weather, and seeking medical attention early. [Full article]

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Zika

• The United States (US): The Pan American Health Organization (PAHO) reported 89 confirmed zika cases in 89 countries, despite a global reduction since 2017 (Hackett K.M, 2024). In 2023, the PAHO reported 35,549 cases, with Brazil leading with 33,863 cases. Pregnant women are particularly susceptible to zika infections, which can lead to congenital malformations and preterm births. No specific antiviral treatment or vaccine candidate has been approved for zika in 2024. [Full article]

Regional Situation for Vector-borne Diseases

Chikungunya

• Indonesia: Hundreds of residents in Trenceng, Mrican Village, Jenangan Sub-district, Ponorogo District have been infected with the chikungunya outbreak, which can cause sudden fever and severe joint pain (Widiyana E, 2024). The virus, which can be transmitted through the bite of an infected mosquito, is also mediated by the Aedes sp mosquito. Despite no confirmed cases in Surabaya, the District Health Office has confirmed that no confirmed cases have been found. The mosquito eradication movement and the "one house, one jumantik (mosquito larva watcher)" movement are the main preventive measures. [Full article]

Dengue

• Indonesia: As the transitions to the rainy season, Pandeglang District, Banten Province, has seen an increase in Dengue Hemorrhagic Fever (DHF) cases (Prasetia Moch.M, 2024). The Pandeglang District Health Office is concerned about this situation, as the number of cases has risen significantly in the last two years, reaching 531 cases in 2023. The majority of patients affected by DHF are children under five, while 42 are over 18 years old or adults. To combat the spread of DHF, efforts include Mosquito Nest Eradication and distributing 36 fogging equipment to 36 Public Health Centers. The public is encouraged to use the method, such as close water reservoirs, drain them, and monitor larvae regularly. [Full article]

DHF has caused 74 cases in Banyuasin District, with four deaths (Ismail A, 2024). Head of the Banyuasin District Health Office said the most cases occurred in Talang Kelapa Sub-district, with 59 cases and one death. The number of cases in Banyuasin has declined from 220 in 2022 to 154 in 2023. Head of the Banyuasin District Health Office suggested preventive measures, such as breaking the transmission chain and increasing family involvement in larvae monitoring and eradication. Government of Banyuasin called for cooperation to reduce dengue fever transmission and promote a clean and healthy lifestyle. [Full article]

In January 2024, 219 cases of DHF were recorded in Cianjur, with two deaths (Noviandi, 2024). The majority of cases were productive, with the highest number occurring in Cianjur, Cilaku, and Karangtengah subdistricts, which are prone to dengue fever attacks due to their densely populated environment. 30 patients are currently undergoing hospital treatment. [Full article]

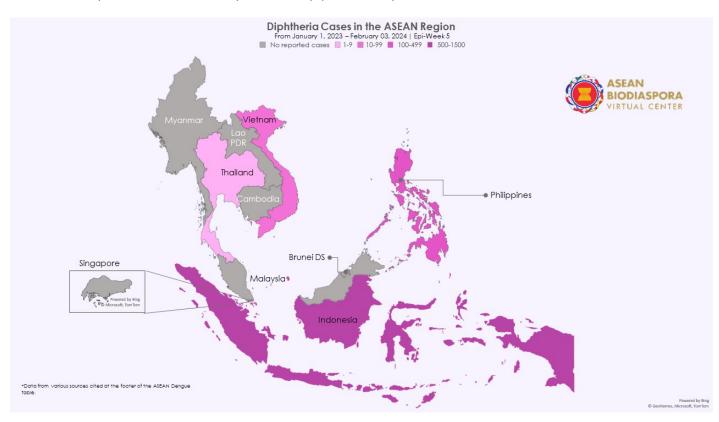
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VACCINE-PREVENTABLE DISEASES

Diphtheria Cases in the ASEAN Region

From January 1, 2023 to February 03, 2024 (Epi-Week 5)



Diphtheria cases in the ASEAN region

Country	Epi-Week Reported	Cumulative Diphtheria Cases	New Cases Since the Previous Report	Cumulative Deaths	CFR
Brunei Darussalam	-	-	-	-	-
Cambodia	-	-	-	-	-
Indonesia ¹	Week 2	914	0	61	6.67%
Lao PDR		-	-	-	-
Malaysia		-	-	-	-
Myanmar		-	-	-	-
Philippines ²	Week 48 '23	198	0	50	25.25%
Singapore ³		-	-	-	0.00%
Thailand ⁴	Week 4	6	0	-	0.00%
Vietnam⁵	Week 52 '23	55	0	5	9.09%
Total		1,173	0	116	9.89%
10101		1,1/3	U	116	7.0

- Ministry of Health, Republic of Indonesia.
- Department of Health Website, accessed February 06, 2024 "Statistics," https://doh.gov.ph/statistics.
- 3. Ministry of Health Singapore, accessed February 06, 2024, https://www.moh.gov.sg/fresources-statistics/infectious-disease-statistics/2023/weekly-infectious-disease-bulletin
- 4. Bureau of Epidemiology, Department of Disease Control, Ministry of Public Health Thailand, accessed February 06, 2024, http://doe.moph.go.th/surdata/index.php
- 5. BlueDot Developer Portal, accessed February 06, 2024, https://developer-portal.bluedot.global/
- The ASEAN region reported NO new diphtheria cases since the previous report. The region reported 1,173 total cases with 9.89% CFR.

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Measles Cases in the ASEAN Region

From January 1, 2023 to February 03, 2024 (Epi-Week 5)



Measles cases in the ASEAN region

Country	Epi-Week Reported	Cumulative Measles Cases	New Cases Since the Previous Report	Cumulative Deaths	CFR
Brunei Darussalam	-	-	-	-	-
Cambodia	-	-	-	-	-
Indonesia ¹	Week 52 '23	10,284	0	11	0.11%
Lao PDR		-	-	-	-
Malaysia		-	-	-	-
Myanmar		-	-	-	=
Philippines ²	Week 48 '23	2,576	0	16	0.62%
Singapore ³	Week 4	9	1	0	0.00%
Thailand4	Week 4	394	42	0	0.00%
Vietnam	-	-	-	-	-
Total		13,263	43	27	0.20%

Ministry of Health, Republic of Indonesia

Department of Health Website, accessed February 06, 2024 "Statistics," https://doh.gov.ph/statistics.

The ASEAN region reported 43 new measles cases in Singapore and Thailand since the previous report. The region reported 13,263 total cases with 0.20% CFR.

Bureau of Epidemiology, Department of Disease Control, Ministry of Public Health Thailand, accessed February 06, 2024, https://doe.moph.go.th/surdata/index.php Ministry of Health Singapore, accessed February 06, 2024, <a href="https://www.moh.gov.sg/resources-statistics/infectious-disease-statistics/2023/weekly-infectious-disease-statistics/infectious-disease-statistics/2023/weekly-infectious



Media Monitoring for Vaccine-Preventable Diseases

Epidemiological Week 5 | January 28 - January 03, 2024

Global Situation for Vaccine-Preventable Diseases

Measles

- Australia: Two new measles cases have been recorded in Victoria, with the public urged to look out for symptoms (Theocharous, 2024). The illness starts with cold-like symptoms such as a cough, fever, and runny nose, then develops into a rash on the face and spreads down the body. Symptoms will develop within seven to 18 days after being exposed to the illness. Victoria's Acting Chief Health Officer said people can be administered the measles, mumps, and rubella (MMR) vaccine within 72 hours of exposure to measles to prevent infection. If not, people should monitor for symptoms and seek medical attention if any symptoms develop. Measles is highly contagious and can be spread through airborne droplets and contact with an infected person's saliva or "nose secretions". [Full article]
- Ethiopia: A measles outbreak has killed 13 people in 5 Weredas of Hadiya Zone, Central Ethiopia Region (Staff Reporter, 2024). The outbreak, which began two months ago, has exposed the local community to severe stress, social and economic problems. Over 200 people have been diagnosed with measles, and over 80 are being treated at the ICU level. The primary cause of the disease is failing to have vaccinated children when they should have been. The outbreak has spread due to responses from the Weredas, who did not accept the latest news about the worsening problem. The Zone has asked for support from various bodies, but no confirmation has been received. [Full article]
- **Pakistan:** Three children in the Sindh district of Kashmore have died from measles, with families claiming that health department teams did not vaccinate them (Desk, 2024). The Sindh health department is seen as lacking in action due to the increasing number of infections and deaths in the area. Measles is a highly virulent infection, with 1 to 3 of every 1,000 children likely to die from respiratory and neurological complications. Vaccination is the only safety measure against measles. [Full article]
- The **United States (US):** The Centers for Disease Control and Prevention (CDC) has reported a surge in measles cases in the US, with 23 confirmed cases between December 1, 2023 and January 23, 2024 (Jingjing, 2024). The majority were among children and adolescents who had not received a measles-containing vaccine. The CDC believes this rise in cases is a reflection of a growing global threat from the disease. [Full article]

Pertussis

- Maldives: A new case of pertussis has been discovered on Villingili island, a Maldives island (Zalif, 2024). The Health Protection Agency (HPA) has confirmed that the case is unrelated to previous cases. The authorities have collaborated with Indira Gandhi Memorial Hospital and Gaaf Alif Atoll Hospital to identify and test contacts with symptoms. Four cases of whooping cough have been detected, with 161 identified contacts, 23 of whom have exhibited symptoms. 17 individuals have been tested, and 27 have received prophylaxis and medication. [Full article]
- Russia: Whooping cough is beginning to cause serious concern, with cases overwhelmingly in the age category of 18 to 35 years (Shabalina L, 2024). The disease is especially difficult for young children and has spread due to anti-vaccination parents. In January 2024, 25 cases of whooping cough were recorded in Togliatti, with 16 people in contact with whooping cough patients. The chief physician of the Central District Hospital, appealed to parents of young children not to avoid vaccinations against serious infectious diseases, as the disease itself brings more serious consequences than imaginary side effects. [Full article]

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• **Spain:** A whooping cough outbreak has been confirmed in Guadalajara, with 124 affected, mainly children (Becerril F, 2024). The MoH reported six adults and two cases in Madrid schools. A contact study was carried out, and chemoprophylaxis and vaccination were recommended. The highly contagious infection, characterized by a severe dry cough and high-pitched sounds, is mainly affected by children who have not completed the vaccination schedule. Pregnant women and those in direct contact with babies are advised to get vaccinated. [Full article]

Regional Situation for Vaccine-Preventable Diseases

Measles

• Malaysia: Sabah Health Department is now providing targeted immunization to children affected by a measles outbreak, as over 80% of those infected had not been vaccinated (Online T.S, 2024). The outbreak has affected 52 cases, with 65% involving foreigners and 46% of children aged seven to 17 infected. Most cases have recovered, with only one hospital case admitted for further treatment. [Full article]

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Annex 1. Infectious Diseases in the ASEAN Region – Summary Table

Epidemiological Week 5 | From January 1, 2023 to February 03, 2024

Infectious Diseases	COVID-19			Мрох			Rabies			Dengue		
	Cum. Cases	Cum. Deaths	CFR	Cum. Cases	Cum. Deaths	CFR	Cum. Cases	Cum. Deaths	CFR	Cum. Cases	Cum. Deaths	CFR
Brunei Darussalam	79,502	77	0.10%	-	-	-	Rabies-free Country		-	-	-	
Cambodia	647	0	0.00%	6	0	0	-	-	-	36,468	99	0.27%
Indonesia	115,047	1,421	1.24%	80	0	0	152	152	100%	99,253	764	0.77%
Lao PDR	1,331	87	6.54%	1	0	0	-	-	-	32,523	20	0.06%
Malaysia	253,117	490	0.19%	9	0	0	25	25	100%	133,810	102	0.08%
Myanmar	8,112	5	0.06%	-	-	-	-	-	-	6,685	30	0.45%
Philippines	141,371	1,467	1.04%	5	0	0%	368	368	100%	195,603	657	0.34%
Singapore	807,621	222	0.03%	32	0	0%	Rabies-free Country			10,244	0	11,491
Thailand	46,810	886	1.89%	673	1	0.15%	6	6	100%	170,927	184	0.11%
Vietnam	100,747	20	0.02%	135	6	4.44%	82	82	100%	172,000	43	0.03%
ASEAN Region	1,554,305	4,675	0.30%	941	7	0.74%	633	633	100%	858,760	1,900	0.22%

Infectious		Malaria			Measles		Diphtheria			
Diseases	Cum. Cases	Cum. Deaths	CFR	Cum. Cases	Cum. Deaths	CFR	Cum. Cases	Cum. Deaths	CFR	
Brunei Darussalam	-	-	-	-	-	-	-	-	-	
Cambodia	-	-	-	-	-	-	-	-	-	
Indonesia	1,962	0	0%	10,284	11	0.11%	914	61	6.67%	
Lao PDR	-	-	-	-	-	-	-	=	-	
Malaysia	1,116	0	0%	-	-	-	-	-	-	
Myanmar	4,510	0	0%	-	-	-	-	-	-	
Philippines	31	0	0%	2,576	16	0.62%	198	50	25.25%	
Singapore	27	0	0%	9	0	0%	-	-	-	
Thailand	5,348	4	0.07%	394	0	0%	6	0	0.00%	
Vietnam	349	1	0.29%	-	-	-	55	5	9.09%	
ASEAN Region	13,343	5	0.04%	13,263	27	0.20%	1,173	116	9.89%	

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References

- Agency, U.H.S. (2024) Latest measles statistics published, GOV.UK. Available at: https://www.gov.uk/government/news/latest-measles-statistics-published (Accessed: 31 January 2024).
- Artiaco, I. (2024) Monkeypox reappears in Florence: 11 confirmed cases, 7 infected at a New Year's party, Fanpage. Available at: https://www.fanpage.it/attualita/a-firenze-ricompare-il-vaiolo-delle-scimmie-11-casi-confermati-in-7-contagiati-a-una-festa-di-capodanno/ (Accessed: 31 January 2024).
- BSS (2024) Bangladesh reports Zero covid-19 death, 35 positive cases: News, BSS. Available at: https://www.bssnews.net/news/170459 (Accessed: 29 January 2024).
- Becerril, F. (2024) An outbreak of Whooping Cough is confirmed in Spain: Symptoms, Causes and Treatment, alimente.elconfidencial.com. Available at:

 https://www.alimente.elconfidencial.com/bienestar/2024-02-01/sintomas-causas-y-tratamiento-de-latosferina 3822295/ (Accessed: 02 February 2024).
- BSS (2024) Bangladesh reports Zero covid-19 death, 49 positive cases, Dhaka Tribune. Available at: https://www.dhakatribune.com/bangladesh/health/338346/bangladesh-reports-zero-covid-19-death-49 (Accessed: 02 February 2024).
- Chivorn (2024) Top news: Cambodia reports 1 new Covid19 case; 1 recovered; 0 died, FRESH NEWS. Available at: https://en.freshnewsasia.com/index.php/en/localnews/45337-2024-01-30-05-34-02.html (Accessed: 31 January 2024).
- Chivorn (2024) Top news: Cambodia reports 2 new Covid19 cases; 3 recovered; 0 died, FRESH NEWS. Available at: https://en.freshnewsasia.com/index.php/en/localnews/45447-2024-02-01-05-43-57.html (Accessed: 02 February 2024).
- Daily Times (2024) KP registers 300 percent increase in malaria cases during 2023, Daily Times. Available at: https://dailytimes.com.pk/1165898/kp-registers-300-percent-increase-in-malaria-cases-during-2023/ (Accessed: 31 January 2024).
- Desk, N. (2024) Bangladesh registers 22 dengue cases, no deaths in a day, bdnews24.com. Available at: https://bdnews24.com/health/qcllttgw5 (Accessed: 29 January 2024).
- Desk, W. (2024) Three children die of measles in Kashmore, ARY NEWS. Available at: https://arynews.tv/three-children-die-measles-kashmore/ (Accessed: 29 January 2024).
- ETHealthworld (2024) India logs 160 fresh covid cases et healthworld, ETHealthworld.com. Available at: https://health.economictimes.indiatimes.com/news/industry/india-logs-160-fresh-covid-cases/107313298 (Accessed: 02 February 2024).
- Fujitani, K. (2024) Covid-19 cases in Japan increase for the ninth consecutive week: The Asahi Shimbun: Breaking News, Japan news and analysis, The Asahi Shimbun. Available at: https://www.asahi.com/ajw/articles/15133765 (Accessed: 29 January 2024).
- GHERT-ZAND, R. (2024) Health confirms two new cases of measles in Israel , The Times of Israel. Available at:

- https://fr.timesofisrael.com/la-sante-confirme-deux-nouveaux-cas-de-rougeole-en-israel-une-epidemie-limitee/ (Accessed: 02 February 2024).
- Hackett, K.M. (2024) Zika virus outbreaks confirmed in the Americas, Precision Vaccinations News. Available at: https://www.precisionvaccinations.com/2024/01/30/zika-virus-outbreaks-confirmed-americas (Accessed: 31 January 2024).
- Health Desk (2024) Bangladesh reports one death, 57 covid-19 cases in 24 Hours, banglanews24.com. Available at: https://www.banglanews24.com/english/health/news/bd/137947.details (Accessed: 31 January 2024).
- Herriman, R. (2024) China reports influenza co-infection in Zhejiang Province, outbreaknewstoday.substack.com. Available at: https://outbreaknewstoday.substack.com/p/china-reports-influenza-co-infection (Accessed: 02 February 2024).
- Interfax.ru (2024) Covid-19 4%, Interfax.ru. Available at: https://www.interfax.ru/russia/942583 (Accessed: 31 January 2024).
- Ismail, A. (2024) Empat Warga banyuasin meninggal dunia akibat demam berdarah dengue. Available at: https://www.rmolsumsel.id/empat-warga-banyuasin-meninggal-dunia-akibat-demam-berdarah-dengue (Accessed: 31 January 2024).
- Jingjing, T. (2024) U.S. CDC warns of rising measles cases, The Star. Available at: https://www.thestar.com.my/news/world/2024/01/27/us-cdc-warns-of-rising-measles-cases (Accessed: 29 January 2024).
- Jones, A. (2024) Dengue surge: 105 cases in Port Louis, Mauritius, News Invasion 24. Available at: https://newsinvasion24.com/dengue-surge-105-cases-in-port-louis-mauritius/ (Accessed: 31 January 2024).
- Ling, S. (2024) Three more rabies deaths in Sarawak, The Star. Available at: https://www.thestar.com.my/news/nation/2024/01/27/three-more-rabies-deaths-in-sarawak (Accessed: 29 January 2024).
- Makati, B. (2024) Doh Nakapagtala ng 26% na pagbaba ng mga covid-19 cases SA bansa, Brigada News Philippines. Available at: https://brigadanews.ph/doh-nakapagtala-ng-26-na-pagbaba-ng-mga-covid-19-cases-sa-bansa/ (Accessed: 02 February 2024).
- Mirage News (2024) Heavy rains increase melioidosis risk: NT govt urges vigilance, Mirage News. Available at: https://www.miragenews.com/heavy-rains-increase-melioidosis-risk-nt-govt-1164594/ (Accessed: 02 February 2024).
- Noviandi, F. (2024) Ratusan Kasus DBD tercatat terjadi di Cianjur Pada awal tahun ini, Dua Orang meninggal Dunia, Tribunjabar.id. Available at: https://jabar.tribunnews.com/2024/02/01/ratusan-kasus-dbd-tercatat-terjadi-di-cianjur-pada-awal-tahun-ini-dua-orang-meninggal-dunia (Accessed: 02 February 2024).
- Pahlevi, R. (2024) Kasus positif corona di sumsel meningkat jadi 322 orang, 73 Pasien Sembuh, detiknews. Available at:

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- https://news.detik.com/berita/d-5013780/kasus-positif-corona-di-sumsel-meningkat-jadi-322-orang-73-pasien-sembuh (Accessed: 31 January 2024).
- Paper, N. (2024) Ten cases of measles were detected in Minsk in January, Новости Беларуси Хартия'97. Available at: https://charter97.org/ru/news/2024/1/29/58140 3/ (Accessed: 31 January 2024).
- Prasetia, Moch.M. (2024) Awal Tahun 2024, Demam Berdarah di Kabupaten Pandeglang capai 172 kasus, radarbanten.co.id. Available at: https://www.radarbanten.co.id/2024/01/27/awal-tahun-2024-demam-berdarah-di-kabupaten-pandeglang-capai-172-kasus/ (Accessed: 29 January 2024).
- Rahman, M. (2024) Nipah virus claims life in Manikganj, Dhaka Tribune. Available at: https://www.dhakatribune.com/bangladesh/nation/338004/nipah-virus-claims-two-lives-inmanikganj (Accessed: 29 January 2024).
- Raajje.mv (2024) One more case of whooping cough detected in Ga.. villingili, Raajje.mv Connecting dots. Available at: https://raajje.mv/148975 (Accessed: 02 February 2024).
- Radin, D. (2024) Confirmed measles case discovered in passenger at lax, CBS News. Available at: https://www.cbsnews.com/losangeles/news/confirm ed-measles-case-discovered-in-passenger-at-lax/ (Accessed: 02 February 2024).
- Reporter, O. (2024) 15 more people are in the hospital due to dengue, NTV Online. Available at: https://www.ntvbd.com/bangladesh/news-1352153 (Accessed: 31 January 2024).
- Sciberras, A. (2024) Victoria Records New Monkeypox Case for first time in six months, Victoria records new monkeypox case for first time in six months. Available at: https://www.9news.com.au/national/victoria-records-new-monkeypox-case-for-first-time-in-six-months/f87549ce-ad79-42ce-9b04-e8f55bd9c93c (Accessed: 31 January 2024).
- Shabalina, L. (2024) ARVI is not rampant, but whooping cough is coming, OPBИ не буйствует, а коклюш наступает | 'Ставрополь-на-Волге' новости Ставропольского района Самарской области. Available at: http://vstrg.info/novosti/orvi-ne-bujstvuet-a-koklyush-nastupaet.html (Accessed: 31 January 2024).
- Staff Reporter. (2024) 13 people die from measles in Hadiya Zone, central Ethiopia Region, Borkena Ethiopian News. Available at: https://borkena.com/2024/01/26/ethiopia-hadya-13-people-die-from-measles-in-hadiya-zone-central-region/ (Accessed: 29 January 2024).
- The Main Events, T.M.E. (2024) Hundreds of cases of measles have been recorded since the beginning of the year in the Southern Federal District and North Caucasus Federal District, Юг и Северный Кавказ | | Интерфакс Россия. Available at: https://www.interfax-russia.ru/south-and-north-caucasus/main/sotni-sluchaev-zabolevaniya-koryuzafiksirovany-s-nachala-goda-v-yufo-i-skfo (Accessed: 02 February 2024).
- Tribune, B. (2024) Another 17 have dengue, Bangla Tribune.

 Available at:

 https://www.banglatribune.com/health/834588/%E0

- %A6%86%E0%A6%B0%E0%A6%93-%E0%A7%A7%E0%A7%AD-%E0%A6%9C%E0%A6%A8%E0%A7%87%E0%A6%B0-%E0%A6%A1%E0%A7%87%E0%A6%99%E0%A7%8D%E0 %A6%97%E0%A7%81 (Accessed: 02 February 2024).
- Tharith (2024) Top news: Cambodia reports 2 new Covid19 cases; 1 recovered; 0 died, FRESH NEWS. Available at: https://en.freshnewsasia.com/index.php/en/localnews/45263-2024-01-28-05-27-40.html (Accessed: 29 January 2024).
- Theocharous, M. (2024) Two new measles cases in Victoria, public urged to be alert, Measles cases locations. Available at: https://www.9news.com.au/national/two-new-measles-cases-in-victoria-public-urged-to-look-out-for-symptoms/0408e2ee-780a-483f-b75e-e78282296648 (Accessed: 29 January 2024).
- TLN Team. (2024) Four times increase in dengue patients in east vidarbha, The Live Nagpur. Available at: https://thelivenagpur.com/2024/01/27/four-times-increase-in-dengue-patients-in-east-vidarbha/ (Accessed: 29 January 2024).
- VNA (2024) Cambodia Records first case of bird flu in humans in 2024, Báo Bình Dương Online. Available at: https://baobinhduong.vn/en/cambodia-records-first-case-of-bird-flu-in-humans-in-2024-a315255.html (Accessed: 29 January 2024).
- Washington, J. (2024) Weekly covid-19 cases down for 4 weeks running: Coronavirus update for Thursday, Feb. 1, 2024, cleveland. Available at: https://www.cleveland.com/metro/2024/02/weekly-covid-19-cases-down-for-4-weeks-running-coronavirus-update-for-thursday-feb-1-2024.html (Accessed: 02 February 2024).
- Widiyana, E. (2024) Ratusan Warga Ponorogo Terjangkit chikungunya, Bagaimana Surabaya?, detikjatim. Available at: https://www.detik.com/jatim/berita/d-7172186/ratusan-warga-ponorogo-terjangkit-chikungunya-bagaimana-surabaya (Accessed: 02 February 2024).
- Zalif, Z. (2024) Another case of whooping cough surfaces in Ga.. villingili, Raajje.mv Connecting dots. Available at: https://raajje.mv/148809 (Accessed: 29 January 2024).
- Zhengwei, C. (2024) Covid-19 單週死亡創5 個月新高 JN.1 成本土主流株: 生活, 中央社 CNA. Available at: https://www.cna.com.tw/news/ahel/20240130 0246.aspx (Accessed: 31 January 2024).
- Zhukoven, O. (2024) A sharp increase in the incidence of measles is observed in the North Kazakhstan region, Казинформ. Available at: https://www.inform.kz/ru/rezkiy-rost-zabolevaemosti-koryu-otmechaetsya-v-sko-dff46a (Accessed: 31 January 2024).

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