This epidemiological bulletin aims to provide the situation of key infectious diseases in the WHO South-East Asia region to inform risk assessment and response by countries. The bulletin uses information from publicly available sources and will be published every two weeks. For feedback or suggestions, please write to seoutbreak@who.int.

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Key events

mpox in Thailand

- As per a press release by the Department of Disease Control (DDC), Ministry of Public Health, Thailand on 3 September 2023, as of 31 August 2023, a total of **316 mpox cases and one death** (immunodeficiency) have been reported in Thailand.
  - 85.8% (n=271) were men who have sex with men (MSM)
  - 45.3% (n=143) were people living with HIV
  - 277 were Thai nationals, 36 were foreigners, 3 were not specified.
  - Most of them lived in the Bangkok area (n=198), Chonburi Province (n=22), Nonthaburi (n=17) and Samut Prakan (n=12).
  - The majority of patients were aged 30-39 years (n=52), followed by 20-29 years (n=85), and **15-24 years (n=28)**.
- Over the past four months, an increasing number of mpox cases were reported: 22 cases in May, 48 cases in June, 80 cases in July, and **145 cases in August**.
- August witnessed a significant surge in mpox cases among young individuals. The outbreak appears shifting from adults to younger age groups, particularly youth and students.
- Thailand has received support from the World Health Organization for the emergency use of tecovirimat for treatment for confirmed patients with severe mpox symptoms.
- The DDC encourages young people and MSM to abstain from engaging in unsafe sexual practices with unfamiliar partners.

Publication of the SARS-CoV-2 variant risk evaluation

- On 30 August 2023, WHO published the SARS-CoV-2 variant risk evaluation.\(^2\) Given the degree of uncertainty of the significance of emerging SARS-CoV-2 variants, a risk evaluation tool was published which WHO will use in collaboration with experts from Member States.
- It is critical to provide a regular evaluation of the public health risk posed by the variant as evidence emerges so that appropriate public health action can be taken. Assessing the strength of the evidence and associated confidence is a complex process that requires multidisciplinary expertise.
- This document, which provides the method for SARS-CoV-2 variant risk evaluation that WHO will use in collaboration with experts in countries, helps with the interpretation of the evidence and provides a framework to evaluate risk considering three main indicators: clinical severity, growth advantage and immune escape. The framework also includes impact on diagnostics and therapeutics.
- The objectives of the tool are to:
  1. provide a transparent evidence-based risk evaluation tool for emerging SARS-CoV-2 variants to inform public health decision making.
  2. harmonize data collection and sharing and rapid assimilation of evidence from countries and regions for a global risk evaluation
  3. describe knowledge gaps in our understanding of emerging SARS-CoV-2 variants
  4. allow for evidence-based communication on risks associated with emerging variants.
- While this approach is specific to SARS-CoV-2, many elements can be used for evaluation of emerging coronaviruses or even other emerging respiratory pathogens.

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COVID-19

Status as of 3 September 2023

- The WHO South-East Asia Region has recorded a cumulative total of 61 202 666 COVID-19 cases, including 806 765 deaths. In the WHO South-East Asia Region, from 28 August to 3 September 2023, 701 new cases (a decrease of 10.4%) while nine new deaths remain the same as compared to the previous week.

- Between 28 August to 3 September 2023, only Myanmar (21 new cases, +10.5%) reported an increase in the number of new cases while India (363 new cases, -0.3%), Thailand (187 new cases, -27.0%), Bangladesh (122 new cases, -3.9%) and Nepal (six new cases, -45.5%) reported a decrease in the number of new cases compared to the previous week. Sri Lanka with two new cases reported no change in number of new cases compared to the previous week. Bhutan have reported no new case in the same period. Data were not available from Indonesia, Maldives and Timor-Leste for this period.

- For the same period, Thailand, India and Bangladesh reported 6, 2 and 1 new COVID-19 deaths respectively. The remaining countries reported no new death in the same period. Data from Indonesia, Maldives and Timor-Leste were not available for this period.

- Globally, 770 085 713 COVID-19 cases, including 6 956 173 deaths have been cumulatively reported, as of 30 August 2023. Globally, from 21 to 27 August 2023, 325 526 new cases and 432 new deaths were reported, representing an increase of 22.4% and 11.9% respectively, as compared to the previous week.

- Please refer to the WHO SEARO COVID-19 dashboard for further information of COVID-19 in WHO South-East Asia Region.

Table 1. COVID-19 cases, deaths, and the weekly change in countries in the WHO South-East Asia Region in the week from 28 August to 3 September 2023

<table>
<thead>
<tr>
<th>Country</th>
<th>Cumulative cases</th>
<th>New cases (last 7 days)</th>
<th>% change in new cases</th>
<th>New cases per 1M pop</th>
<th>Cumulative deaths</th>
<th>New deaths (last 7 days)</th>
<th>% change in new deaths</th>
<th>New deaths per 1M pop</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>44,997,326</td>
<td>363</td>
<td>-0.3</td>
<td>0.3</td>
<td>532,023</td>
<td>2</td>
<td>-0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>4,756,593</td>
<td>167</td>
<td>-27.0</td>
<td>2.7</td>
<td>34,465</td>
<td>6</td>
<td>0.0</td>
<td>0.1</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>2,043,408</td>
<td>122</td>
<td>-3.9</td>
<td>0.7</td>
<td>29,477</td>
<td>1</td>
<td>100.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Myanmar</td>
<td>641,188</td>
<td>21</td>
<td>10.5</td>
<td>0.4</td>
<td>19,494</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Nepal</td>
<td>1,003,434</td>
<td>6</td>
<td>-45.5</td>
<td>0.2</td>
<td>12,031</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>672,579</td>
<td>2</td>
<td>0.0</td>
<td>0.1</td>
<td>16,682</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Bhutan</td>
<td>62,697</td>
<td>0</td>
<td>-100.0</td>
<td>0.0</td>
<td>21</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Indonesia</td>
<td>6,813,287</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>161,918</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Maldives</td>
<td>186,694</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>316</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>23,460</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>138</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>SEAR total</td>
<td>61,202,666</td>
<td>701</td>
<td>-10.4</td>
<td>9.0</td>
<td>806,765</td>
<td>9</td>
<td>0.0</td>
<td>NA</td>
</tr>
</tbody>
</table>

India excludes 93 deaths reconciled in Kerala released on 2 September 2023 by MOHFW India
Percent change in the number of newly confirmed cases/deaths in past seven days, compared to previous week. NA = data not available.
Thailand data were for the period from 27 August to 2 September 2023 in comparison to the preceding week. DPR Korea has not reported confirmed COVID-19 cases.

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3 Data as of 12:20pm CEST, 30 August 2023, link: https://covid19.who.int/
4 Starting from the week of 7 August 2023, the Region of the Americas has stopped sharing the COVID-19 cases and deaths updates. For more information regarding COVID-19 in the Americas, please access the link: https://www.paho.org/en/topics/influenza-and-other-respiratory-viruses.
Figure 1. Weekly number of new COVID-19 cases reported during the previous eight weeks (10 July to 3 September 2023) in the WHO South-East Asia Region

Figure 2. Weekly number of SARS-CoV-2 positive samples and test positivity from integrated influenza-SARS-CoV-2 sentinel surveillance systems in the previous seven weeks (10 July to 27 August 2023) in selected counties* (as of 27 August 2023)

* Countries routinely conducting SARS-COV-2 testing of the samples collected through influenza sentinel surveillance sites (Bangladesh, Bhutan, Indonesia, Nepal and Timor-Leste).
Figure 3. Number of weekly new COVID-19 cases per 100,000 population in the previous eight weeks (10 July - 3 September 2023) in countries in the WHO South-East Asia Region *

* DPR Korea has reported no confirmed COVID-19 case. Indonesia data as of 26 August 2023. Timor-Leste data as of 11 August 2023.
Circulation of SARS-CoV-2 variants globally

Currently, WHO is closely tracking three variants of interest (VOI) and seven variants under monitoring (VUMs) and their descendant lineages (* includes their descendant lineages).

- The VOIs are XBB.1.5, XBB.1.16 and EG.5*.
- The VUMs are BA.2.75*, BA.2.86*, CH.1.1*, XBB* (excluding XBB.1.5*, XBB.1.16*, XBB.1.9.1*, XBB.1.9.2* and XBB.2.3*), XBB.1.9.1*, XBB.1.9.2* and XBB.2.3*.
- Globally, EG.5 is now the most prevalent VOI, increasing from 15.4% in epidemiological week 28 (10 to 16 July 2023) to 26.1% in epidemiological week 32 (7 to 13 August 2023). Among the other VOIs, XBB.1.16 remained stable and XBB.1.5 declined in prevalence.
- Among the VUMs, the prevalence of CH.1.1* XBB*, XBB.1.9.1* and XBB.2.3* remained stable while BA.2.75* and XBB.1.9.2* declined in prevalence. The prevalence of BA.2.86 could not be calculated due to the very small numbers of sequences; however, as of 30 August 2023, 21 sequences have been reported from seven countries (five in the WHO European Region, one in the African Region and one in the Region of the Americas) and uploaded on GISAID.

SARS-CoV-2 variants in the South-East Asia Region

As of 2 September 2023, the sequence data submitted to GISAID in the last 60 days are as follows (Figures 4a and 4b). Only small number of sequences have been submitted from the Region and therefore the data should be interpreted with caution.

- In Bhutan, five sequences were submitted of which, four were XBB.1.16* and one was EP.1.
- In India, XBB.1.16* accounted for 50.0% (n=57) of the 114 sequences submitted in the last 60 days. XBB.2.3* accounted for 43.0% (n=49). Three sequences of EG.5* were submitted.
- In Indonesia, three sequences were submitted for which two were XBB.1.9.1* and one was EG.5*.
- In Thailand, XBB.1.16* accounted for 46.5% (n=159) of the 342 sequences submitted, with XBB.1.9.1* accounting for 16.1% (n=55) and XBB.2.3* for 15.5% (n=53). A total of 16 (4.7%) sequences of EG.5* were submitted.
- No sequences of BA.2.86* were submitted.
- Other countries have not submitted sequences recently to GISAID.

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5 https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---1-september-2023
Figure 4a. Number of Omicron sub-lineage sequences submitted to GISAID within the past 30 and 31-60 days as of 2 September 2023 by date of collection (countries with recent submissions) ¹

Figure 4b. Proportion of Omicron sub-lineage sequences submitted to GISAID within the past 30 and 31-60 days as of 2 September 2023 by date of collection (countries with recent submissions) ¹

*indicates the sub-lineage of each variant.
¹ The date next to the country name indicates the latest date of sample collection for sequence submitted to GISAID.

XBB* excludes XBB.1.16*, XBB.1.5*, XBB.1.9.1, XBB.1.9.2 and XBB.2.3*
EG.5* is a sub-lineage of XBB.1.9.2

mpox
Status as of 5 September 2023

- In the WHO South-East Asia Region, a total of 344 laboratory-confirmed mpox cases, including two deaths, have been verified since 14 July 2022 (Figure 5). Table 2 summarizes the basic epidemiological profile of the reported mpox cases in the Region.

Figure 5. Number of mpox cases reported in WHO South-East Asia Region by date of notification* (14 July 2022 – 3 September 2023)

Table 2. Profile of the 344 confirmed mpox cases reported in WHO South-East Asia Region since July 2022 (as of 3 September 2023)

<table>
<thead>
<tr>
<th>Country</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>22</td>
<td>6.4%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1</td>
<td>0.3%</td>
</tr>
<tr>
<td>Nepal</td>
<td>1</td>
<td>0.3%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>4</td>
<td>1.2%</td>
</tr>
<tr>
<td>Thailand</td>
<td>316</td>
<td>91.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>222</td>
<td>64.5%</td>
</tr>
<tr>
<td>Female</td>
<td>22</td>
<td>6.4%</td>
</tr>
<tr>
<td>Transgender</td>
<td>1</td>
<td>0.3%</td>
</tr>
<tr>
<td>Unknown</td>
<td>99</td>
<td>28.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age group</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-17</td>
<td>2</td>
<td>0.6%</td>
</tr>
<tr>
<td>18-29</td>
<td>91</td>
<td>26.5%</td>
</tr>
<tr>
<td>30-39</td>
<td>147</td>
<td>42.7%</td>
</tr>
<tr>
<td>40 and over</td>
<td>71</td>
<td>20.6%</td>
</tr>
<tr>
<td>Unknown</td>
<td>33</td>
<td>9.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sexual orientation</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heterosexual</td>
<td>27</td>
<td>7.8%</td>
</tr>
<tr>
<td>Men who have sex with men (MSM)</td>
<td>189</td>
<td>54.9%</td>
</tr>
<tr>
<td>Bisexual</td>
<td>2</td>
<td>0.6%</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>0.9%</td>
</tr>
<tr>
<td>Unknown</td>
<td>123</td>
<td>35.8%</td>
</tr>
</tbody>
</table>

* Notification - The date on which the case is notified to the public health authority.

For more information on the global situation of mpox outbreak, please visit the global dashboard.
**Dengue**

**Bangladesh**

- During August 2023, a total of 71,976 cases and 342 deaths have been reported. This is the highest number of monthly cases and deaths, compared with the available historical data from 2019 to 2023.
- A total of 15,791 cases of dengue were reported in Bangladesh during epidemiological week (EW) 35 (28 August to 3 September 2023), an 8.8% increase compared to the number of cases reported in during EW 34 (21 to 27 August 2023) (n=14,517). The number of new deaths increased by 18.1% (n=72 in week 34 compared to n=86 in week 35) (Figure 6).
- A total of 130,302 dengue cases including 634 deaths have been cumulatively reported between 1 January and 3 September 2023 with a case fatality rate of 0.49%. Of the 130,302 cases:
  - 60,484 (46.4%) were reported in Dhaka city and 69,818 (53.6%) from outside Dhaka city;
  - males accounted for 62.0% of cases; however, the overall CFR was higher in females than in males (0.75% vs 0.33%); and
  - mortality also differed by age with those aged over 60 years having the highest CFR (1.81%) followed by those aged 41 to 60 years (0.81%), 21 to 40 years (0.37%) and 20 years and younger (0.28%).

**Figure 6. Number of new cases of, and deaths from dengue by month in Bangladesh from January 2019 to 31 August 2023**

Maldives

- No new data has been uploaded since the Monthly Communicable Disease report for May 2023 in Maldives. Please refer to previous versions of the South-East Asia Epidemiological Bulletin for prior epidemiological information.

Nepal

- A total of 1,114 cases of dengue were reported in Nepal during week 33 (13 to 19 August 2023), a 13.3% increase compared to week 32 (6 to 12 August, n=983) and 6.8 times higher than the mean number of cases reported during week 33 from 2018 to 2022 (n=163) (Figure 7).
- Between 1 January and 3 September 2023, 22,627 cases of dengue including 14 confirmed deaths have been reported from 75 districts in Nepal.
  - Cases from Koshi province continue to account for the majority of cases (n=17,088, 75.5%) with Sunsari district reporting the highest number of cases in the province (n=12,431, 72.7%).
  - Nationally, the number of cases reported in August 2023 (n=14,784) was 4.0 times higher than the 3,708 cases reported in August 2022. In 2022, the number of new cases peaked in September (n=27,529).  

Figure 7. Number of new cases of dengue by week (1 to 53 (A) and 21 to 37 (B)) in Nepal from January 2018 to 19 August 2023

**Sri Lanka**

- In 2023, a total of 1,523 cases of dengue were reported in Sri Lanka in week 32 (5 to 11 August 2023), a 7.4% increase compared to week 31 (29 July to 4 August, n=1,417) and 81.0% of the mean number of cases reported during week 32 from 2017 to 2022 (n=1,880) (Figure 8).

**Figure 8. Number of new cases of dengue by week in Sri Lanka from January 2018 to 11 August 2023 (week 32)**

[Graph showing the number of new cases of dengue by week from January 2018 to 11 August 2023 (week 32).]

Sources: Epidemiology Unit and National Dengue Control Unit, Ministry of Health.


Thailand

- A total of 18,145 cases of dengue (inclusive of dengue fever, dengue haemorrhagic fever and dengue haemorrhagic fever shock syndrome) were reported in Thailand in August 2023, an 31.7% decrease compared to July (n=26,549) (Figure 9).
- A total of 16 deaths due to dengue (inclusive of dengue fever, dengue haemorrhagic fever and dengue shock syndrome) were reported in August 2023, a decrease of 27.3% from the number reported in July (n=22) (Figure 9).
- A total of 79,475 dengue cases and 73 dengue deaths were reported in Thailand from January to August 2023. This is the second highest number of cases for this period since 2018 (88,750 cases were reported in 2019) and the third highest number of deaths (n=81 in 2018 and n=105 in 2019).9 10 11 12

Figure 9. Number of new dengue cases and deaths by month in Thailand from January 2018 to August 2023.

Influenza

Situation of influenza in WHO South-East Asia Region

- From the week starting on 26 June 2023, WHO’s South-East Asia (SE Asia) Region has been witnessing an increase in transmission of seasonal influenza. This increasing trend is corroborated by the percentage of specimens positive for influenza that increased from 15% to 25% in the region during the period from 10 July to 27 August 2023. However, the proportion of influenza positive laboratory specimens demonstrated a decreasing trend from 31% on week of 7 August to 25% on week of 27 August.

- Increases in WHO SE Asia Region were primarily driven by Bangladesh and Thailand. In Bangladesh, from 10 July to 20 August 2023, the percentage of specimens positive for influenza increased from 31% (n=125) to 46% (n=102) (Figure 1). In Thailand, from 10 July to 27 August, the positivity of specimen increased from 14% (n=25) to 21% (n=42) (Figure 12).

- The most frequently circulating strains overall in the WHO SE Asia region were influenza A/H3, A/H1N1pdm09 and influenza B Victoria (Figure 10). In Bangladesh, the transmission was primarily driven by influenza subtype B Victoria followed by influenza A/H3 and A/H1N1 pdm09 (Figure 11), while in Thailand, it was due to influenza subtype A/H1N1 pdm09 followed by A/H3 and a significant number of un-subtyped influenza B (Figure 12).

- Data sources and information on influenza, please refer to the WHO SEARO Influenza dashboard.

Figure 10. Number of specimens positive for influenza by subtypes and the influenza test positivity in WHO South-East Asia Region (as of 27 August 2023)
Figure 11. Number of specimens positive for influenza by subtypes and the influenza test positivity in Bangladesh 2023 (as of 20 August 2023)

Figure 12. Number of specimens positive for influenza by subtypes and the influenza test positivity in Thailand 2023 (as of 27 August 2023)
Global situation of influenza

- Globally, influenza detections remained low as per data reported till 20th August 2023 with activity in many countries in the southern hemisphere now decreasing after having peaked in previous weeks.
  - The global situation of low detection in which the percentage of specimens positive for influenza varied just around 2.7% (n=3,424) to 1.8% (n=2,057) from 10 July to 27 August 2023 (Figure 13).

- The WHO GiSRS laboratories tested more than 230,916 specimens during the period from 7 August 2023 to 20 August 2023. Total 5,040 specimens were positive for influenza viruses, of which 3,558 (70.6%) were typed as influenza A and 1,482 (29.4%) as influenza B.
  - Of the sub-typed influenza A viruses, 991 (38.0%) were influenza A/H1N1pdm09 and 1,617 (62.0%) were influenza A/H3N2. Of the type B viruses for which lineage was determined, all (560) belonged to the B/Victoria lineage.

**Figure 13. Number of specimens positive for influenza by subtypes and the influenza test positivity globally (as of 27 August 2023)**

SARS-CoV-2 sentinel surveillance leveraging the national influenza sentinel surveillance systems

- Member States in SE Asia Region and Western Pacific Region (WPR) recently concluded 16th Bi regional meeting of influenza surveillance and national influenza centres (NIC) in SEAR and WPR. The meeting recommended member states that have received the multiplex influenza and SARS-CoV-2 reagent kits from the GiSRS, to conduct integrated surveillance of influenza and SARS-CoV-2 and report epidemiological and laboratory information in a timely manner to WHO. Five countries have started reporting in SE Asia Region.
- From 10 July to 27 August 2023, the proportion of respiratory samples collected by influenza sentinel surveillance systems in these countries that tested positive for COVID-19 varied from 2.9% to 4% (Figure 2).
- Updates of Integrated surveillance of SARS-CoV-2 using Influenza sentinel surveillance systems are available in WHO’s website: [https://www.who.int/publications/i/item/9789240056701](https://www.who.int/publications/i/item/9789240056701)