World Health Organization
Bangladesh

Dengue SitRep

Dengue Situation Report, Issue # 3, 11 SEP 2023

https://www.who.int/bangladesh/emergencies/dengue-update-2023

Epi-week 36: 04 - 10 Sep 2023

Weekly Case	Weekly Recovered	Weekly Death	Presently Hospitalised	Cumulative Case	Cumulative Death
18 026	16 904	96	9 871	148 328	730

(Data source: HEOC & Control Room, MIS-DGHS)

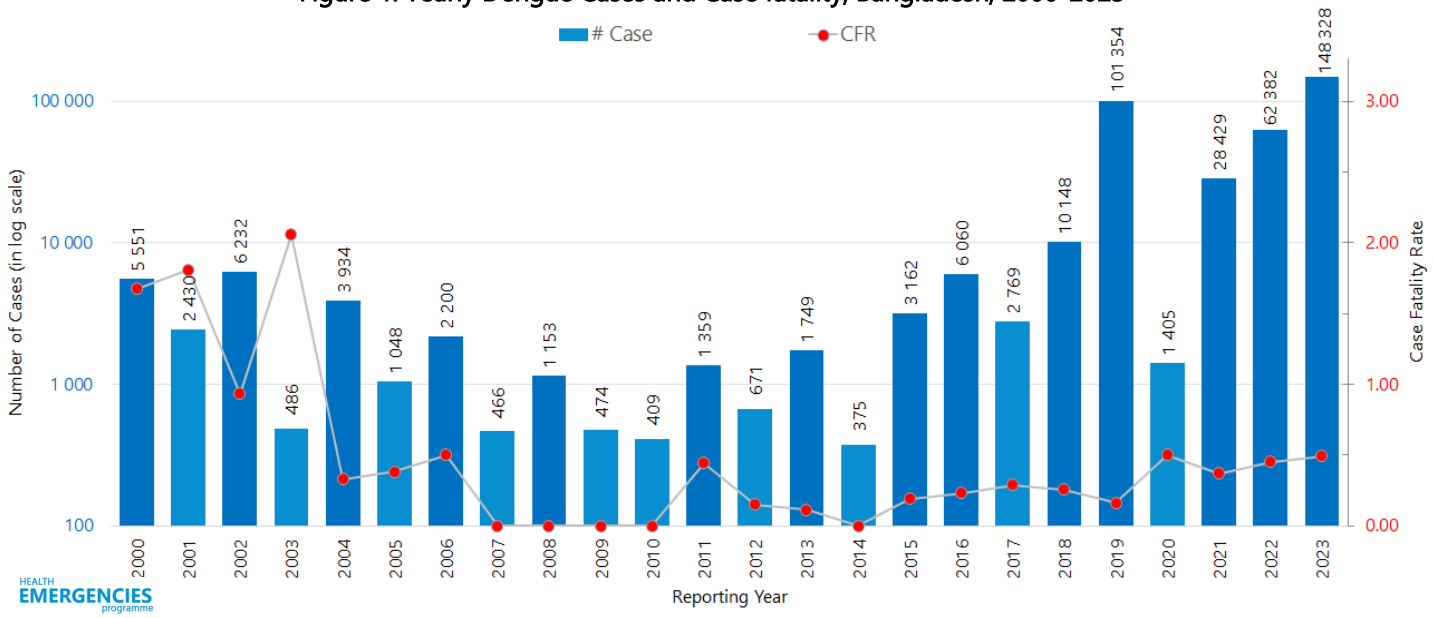
Highlights

- This week, 18,026 dengue cases, including 96 deaths, were reported, compared to 15,791 cases and 86 deaths in the previous week. This brings the cumulative number of reported cases and deaths to 148 328 and 730 respectively since January 2023.
- Following a peak in week 32 (with most cases from Dhaka city) and subsequent decline, cases are increasing again for the last two weeks (35 and 36) mainly from other parts of the country.
- At the division level, weekly cases showed an increased trend in all the divisions except the Rangpur division. The most increase in the number of cases (>20%) is observed in Barishal, Khulna, Mymensingh and Rajshahi divisions.
- Weekly deaths in Dhaka city is fluctuating between 47 and 60 during the last 8 weeks while, deaths outside Dhaka city is gradually increasing, with 39 deaths in the reporting week.
- WHO and partners continue to support the government in responding to the event.

Surveillance & Laboratory

- As of 10 September 2023, a cumulative total of **148 328** cases (dengue NS1 or IgM test-positive persons hospitalized in the reporting health facilities), including **730** deaths had been reported in the country, according to the DGHS Dengue press release as of 10 September 2023.
    - The number of dengue cases and deaths in the current year is higher than any annual number since 2000 *[Figure 1]*.

Figure 1: Yearly Dengue Cases and Case fatality, Bangladesh, 2000-2023



Surveillance & Laboratory ... continued

- During the epidemiological week 36, **18 026** new cases were reported, which has increased by **14.2%** compared to the previous week 35 (n=15 791).
  - At the division level, weekly cases increased in all the divisions except Rangpur. A sharp increase in the number of cases (>20%) is observed, particularly in Barishal, Khulna, Mymensingh, and Rajshahi divisions *[Figure 2]*. Dhaka division reported the highest number of cases (9 537 this week and 8 601 in the previous week, a **10.9% increase),** followed by Chattogram (2 597 this week and 2 421 in the previous week, a **7.3% increase**), Barishal (2 370 this week and 1 864 in the previous week, a **27.1% increase**), Khulna (1 688 this week and 1 351 in the previous week, a **24.9% increase**), Rajshahi (899 this week and 701 in the previous week, a **28.2% increase**), Mymensingh (557 this week and 455 in the previous week, a **22.4% increase**), Rangpur (306 this week and 331 in the previous week, a **7.6% decrease**), and Sylhet (72 this week and 67 in the previous week, a **7.5% increase**).

Figure 2: Dengue Epi-curve by division, 2023

(Data source: HEOC & Control Room, MIS-DGHS)

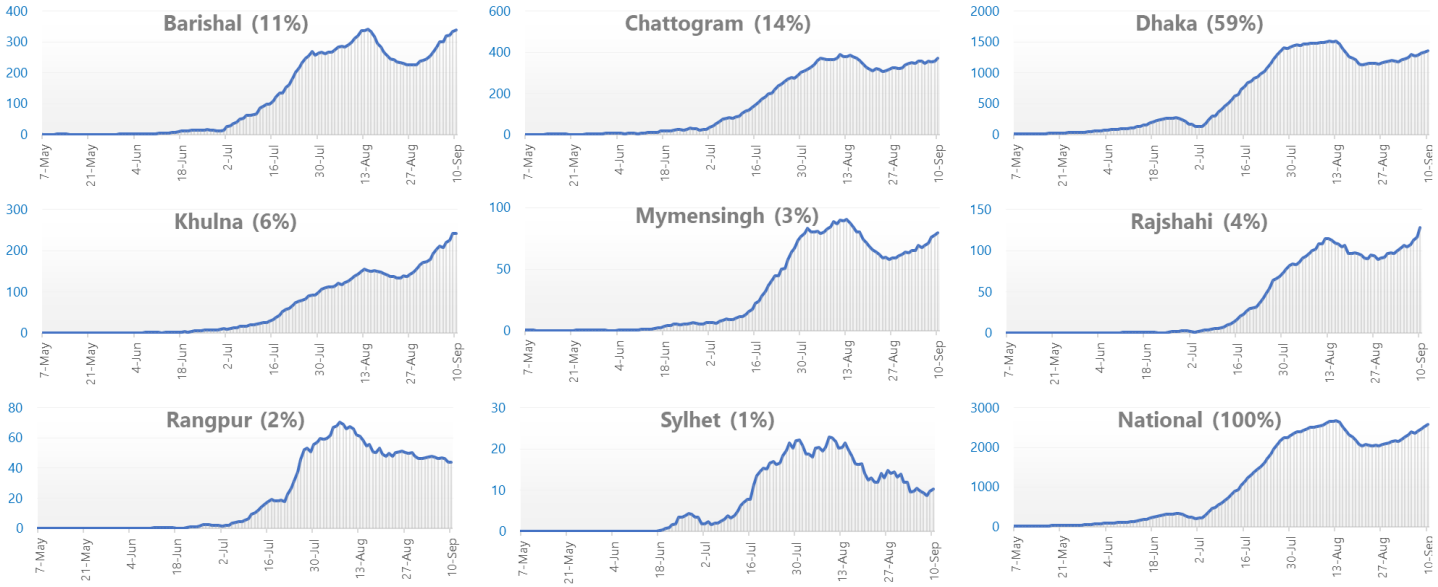
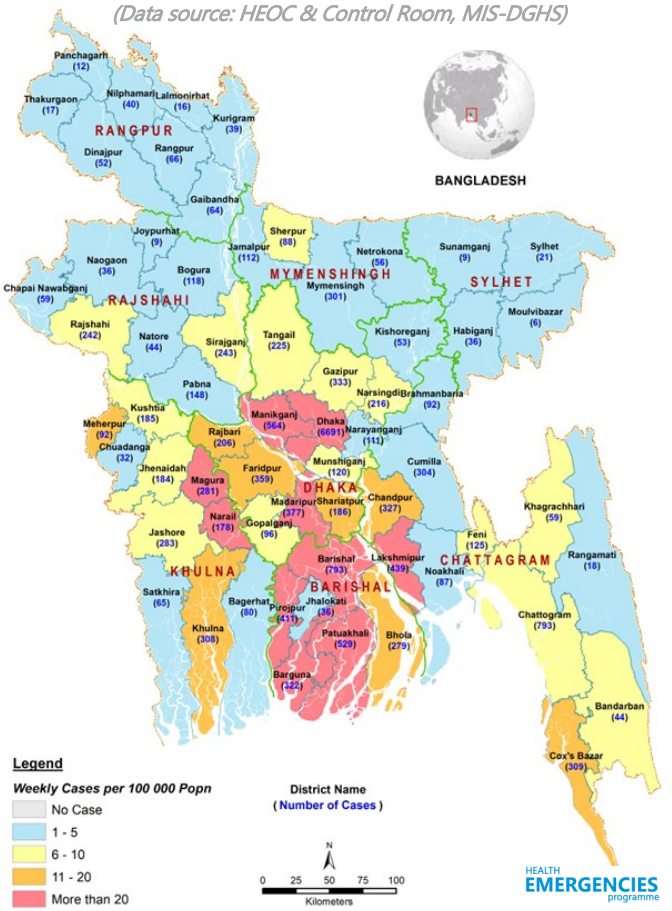


Figure 3: Distribution of Dengue Cases

Week 36, 2023, n= 18 026

(Data source: HEOC & Control Room, MIS-DGHS)



  - In the reporting week, all 64 districts have reported cases ranging from **6** (in Maulvibazar) to **6 691** (in Dhaka) *[Figure 3]*.
  - Higher case density (>20 per 100 000 population per week) was reported in Dhaka, Manikganj, Pirojpur, Barguna, Patuakhali, Barishal, Madaripur, Magura, Lakshmipur, and Narail districts. While **8** districts were in the group of 11-20, **13** districts were in the group of 6-10 and **31** districts were in the group of 1-5 case per 100 000 per week *[Figure 3]*.
- Among the reported cases (n= 148 328), majority of

the cases (66%) were aged between 11 and 40 years. The sex ratio for the cumulative cases is approximately 161 males to 100 females. Among male cases, **80%** is <=40 years and among female cases, **74%** is <= 40 years.

- During week 36, a total of 96 deaths were reported, which has increased by **11.6%** compared to the previous week 35 (n=86) *[Figure 4]*.
  - At the divisional level, the number of deaths has increased in Dhaka, Chattogram, Barishal, and Rajshahi divisions. In the reporting week (epi-week 36), Dhaka division reported the highest number of deaths (66 this week and 63 in the previous week, a 4.8% increase), followed by Barishal (11 this week and 9 in the previous week, a **22.2%** increase), Khulna (8 this week and 10 in the previous week, a **20.0%** decrease), Chattogram (7 this week and 2 in the previous week), Rajshahi (3 this week and 1 in the previous week), Mymensingh reported 1 death both in this week and in the previous week, and Sylhet and Rangpur divisions reported no deaths in the last two weeks.
  - Weekly deaths in Dhaka city are fluctuating are between 47 and 60 during the last 8 weeks, while deaths outside Dhaka city is increasing gradually, with **39** deaths in the reporting week *[Figure 5]*.
- Among the reported deaths (n= 730), majority of the deaths (**64%**) were aged between 21 and 60 years. The sex ratio for the cumulative deaths is approximately 72 males to 100 females. Among female deaths, **53%** are >40 years old, and among male cases, **59%** are >40 years old.

Figure 4: Distribution of Dengue Deaths

Week 36, 2023 (n=86)

(Data source: HEOC & Control Room, MIS-DGHS)

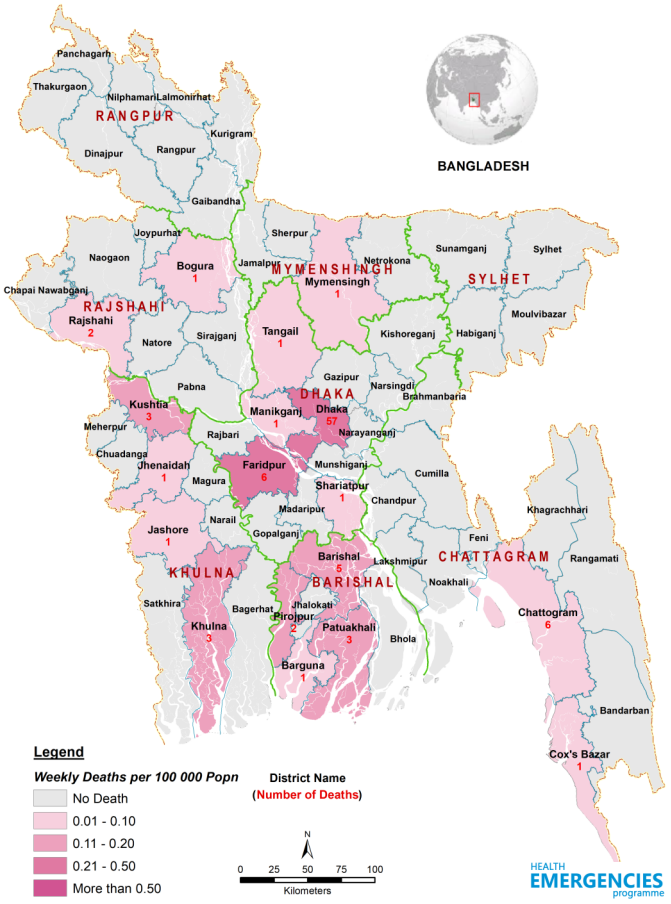
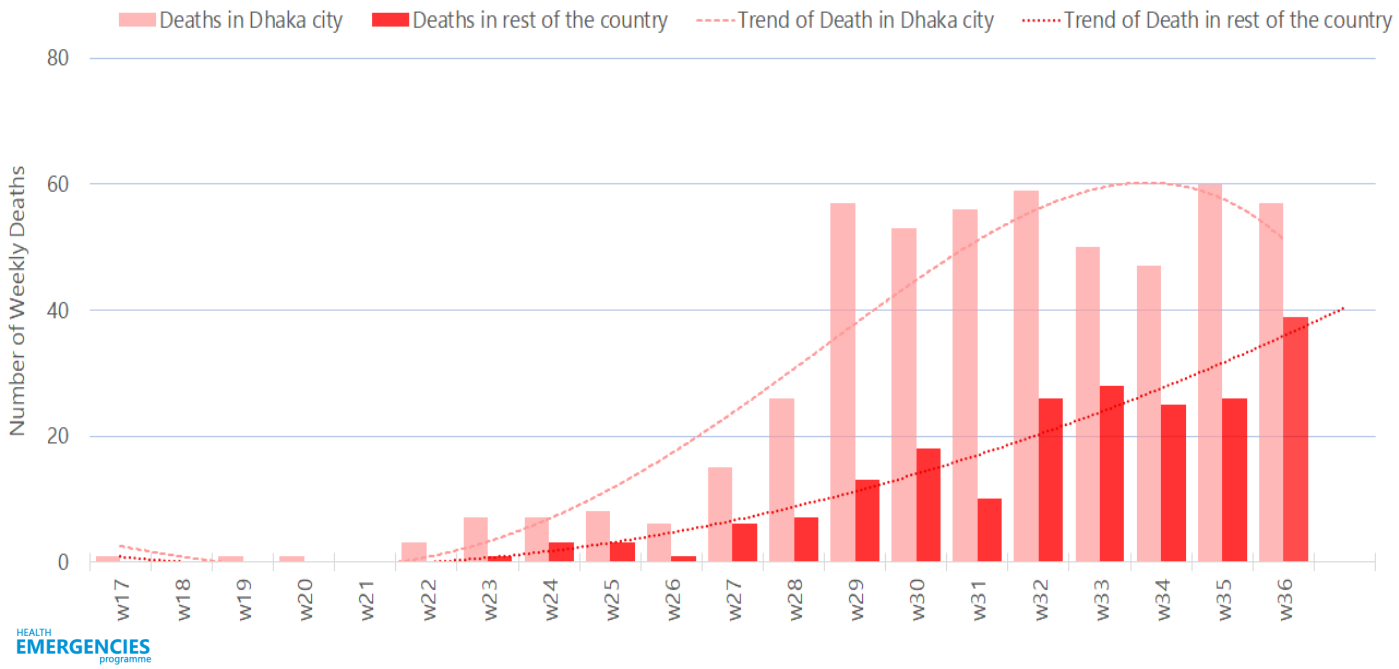


Figure 5: Weekly dengue deaths, 2023

(Data source: HEOC & Control Room, MIS-DGHS)



Surveillance & Laboratory ... continued

- The overall case fatality rate (CFR) of the year was **0.49%** by the end of week 36. CFR is higher in females than in males (**0.75%** and **0.33%** respectively).
- As of 10 September, out of 730 deaths from dengue, the underlying causes were revealed as **64%** due to dengue shock syndrome, **23%** to expanded dengue syndrome, **9%** to dengue haemorrhagic fever, and **4%** to dengue fever with comorbidities.

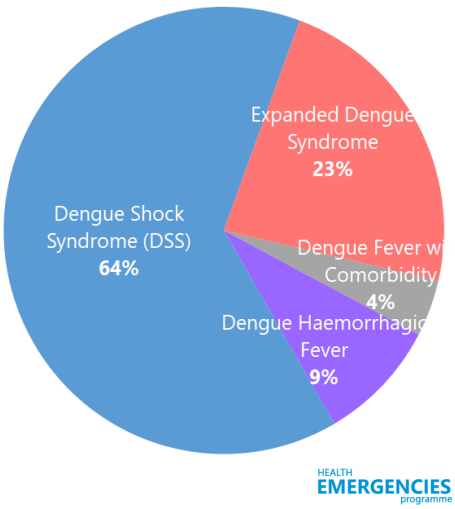
- No new serotyping report has been available in recent weeks. From the previous reports of 325 samples, DENV-2 has been identified as the primary circulating serotype (**62%**) in this outbreak, followed by DENV-3 (**29%**) and the **9%** coinfection of DENV-2+ DENV-3.

Case Management

- Causes of death till the reporting period (n=730) were dengue shock syndrome (64%), expanded dengue syndrome (23%), dengue haemorrhagic fever (9%); and 4% with comorbidities as documented during the initial death reporting *[Figure 6]*.
- The Honourable Minister of Health & Family Welfare unveiled an app 'DengueDrops: A Smart IV Fluid Calculator' for calculating optimum fluid requirements for dengue patients. The mobile app was developed by a team of biomedical engineers from Bangladesh University of Engineering and Technology (BUET) and some physicians with the guidance from subject matter experts on Dengue Case Management. Through the new app, health care workers can take informed decision on IV fluid management for dengue inpatients with the input of some vital data such as age, gender, height, weight, and blood pressure. This application is suitable for the treatment of dengue patients with warning signs; a web version is available in the internet.

Figure 6: Cause of Deaths

(Data source: HEOC & Control Room, MIS-DGHS)



Risk Communication & Community Engagement

- RCCE platform developed dengue awareness messages in collaboration with CDC-DGHS and partners for dissemination as posters, leaflets, mobile SMS, and through miking.
- USAID supported UNICEF to develop a guideline on community engagement for preventing and managing dengue outbreak at community level following the Social and behaviour change communication (SBCC) toolkit. Following this guidelines community engagement will be conducted in 30 hotspot areas. The guideline can further be utilized by the GOs and NGOs for a greater extent of community engagement.
- Telecom operator Robi has sent dengue awareness message to more than 40 million subscribers in their network to prevent dengue infection in the community.

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