

Dengue Situation Report, Issue # 6, 02 OCT 2023

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

Epi-week 39: 24 Sep-01 Oct 2023



Weekly Case

18 563



Weekly Recovered

19 579



Weekly Death

97



Presently Hospitalised

9 357



Cumulative Case

206 288



Cumulative Death

1 006

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

Highlights

- In epidemiological week 39, 18 563 new cases were reported which is a 7.4% drop compared to the previous week (20 041). However, 97 deaths were reported during the week, compared to 87 in the previous week.
- All the divisions showed a decreasing trend in reported number of cases compared to the previous week except Khulna division. Highest cases were reported from Dhaka (9 086), Chattogram (2 805), Barishal (2 477), Khulna (2 299), and Rajshahi (1 128) divisions. Most cases (73%) were reported from around the country outside Dhaka city.
- Cumulatively males make up 61% of cases but females make up 56% of deaths. The CFR among the females is 0.70% compared to 0.35% among males. However, the difference in CFR among the two groups is narrowing in recent weeks.
- The government and partners continue efforts to control the outbreak including urgently addressing the high mortality. Two (2) international clinical experts have arrived the country to provide further support.

Surveillance & Laboratory

- As of 01 October 2023, a total of 206 288 cases (dengue NS1 or IgM test-positive persons hospitalized in the reporting health facilities), including 1 006 deaths, had been reported in the country, according to the [DGHS Dengue press release](#).
- In epidemiological week 39 (25 September – 01 October 2023), 18 563 new cases were reported, including 97 deaths. Over the week, the number of cases dropped by 7.4% from the number (20 041) of the previous week. During the reporting period, 19 579 hospitalised persons were released from the hospital after treatment.
- All the divisions reported fewer cases compared to the previous week except Khulna. Dhaka division reported the highest number of cases (9 086 this week and 9 840 in the previous week, 7.7% lower) [Table 1], followed by Chattogram (2 805 this week and 3 140 in the previous week, 10.7% lower), Barishal (2 477 this week and 2 709 in the

Table 1: Weekly Dengue Cases and Deaths, Bangladesh, 2023

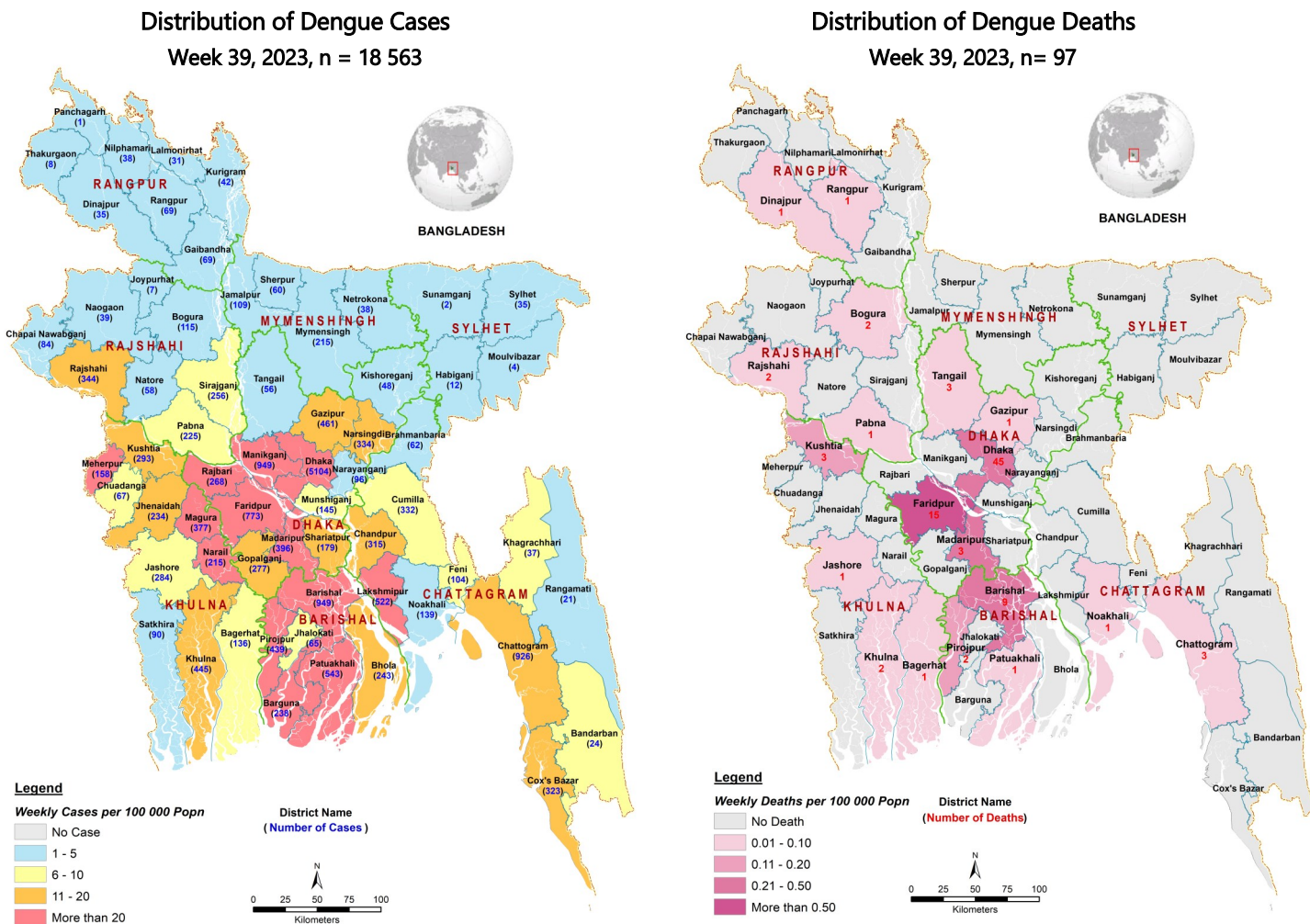
(Data source: HEOC & Control Room, MIS-DGHS)

Division	Cumulative Cases	Weekly Cases	Weekly Cases /100K	Cumulative Deaths	Weekly Deaths	Weekly Deaths /100K	Cumulative CFR
Barishal	24 808	2 477	26.6	103	12	0.13	0.42%
Chattogram	29 846	2 805	8.2	84	4	0.01	0.28%
Dhaka	116 922	9 086	19.9	734	67	0.15	0.63%
Khulna	15 040	2 299	12.9	46	7	0.04	0.31%
Mymensingh	5 743	422	3.3	11	0	0.00	0.19%
Rajshahi	8 762	1 128	5.4	20	5	0.02	0.23%
Rangpur	3 968	293	1.6	7	2	0.01	0.18%
Sylhet	1 199	53	0.5	1	0	0.00	0.08%
National	206 288	18 563	10.9	1 006	97	0.06	0.49%

previous week, 8.6% lower), Khulna (2 299 this week and 2 232 in the previous week, 3.0% higher), Rajshahi (1 128 this week and 1 273 in the previous week, 11.4% lower), Mymensingh (422 this week and 463 in the previous week, 8.9% lower), Rangpur (293 this week and 326 in the previous week, 10.1% lower), and Sylhet (53 this week and 58 in the previous week, 8.6% lower).

Figure 1: Dengue Cases and Deaths by Districts, Week 39, 2023

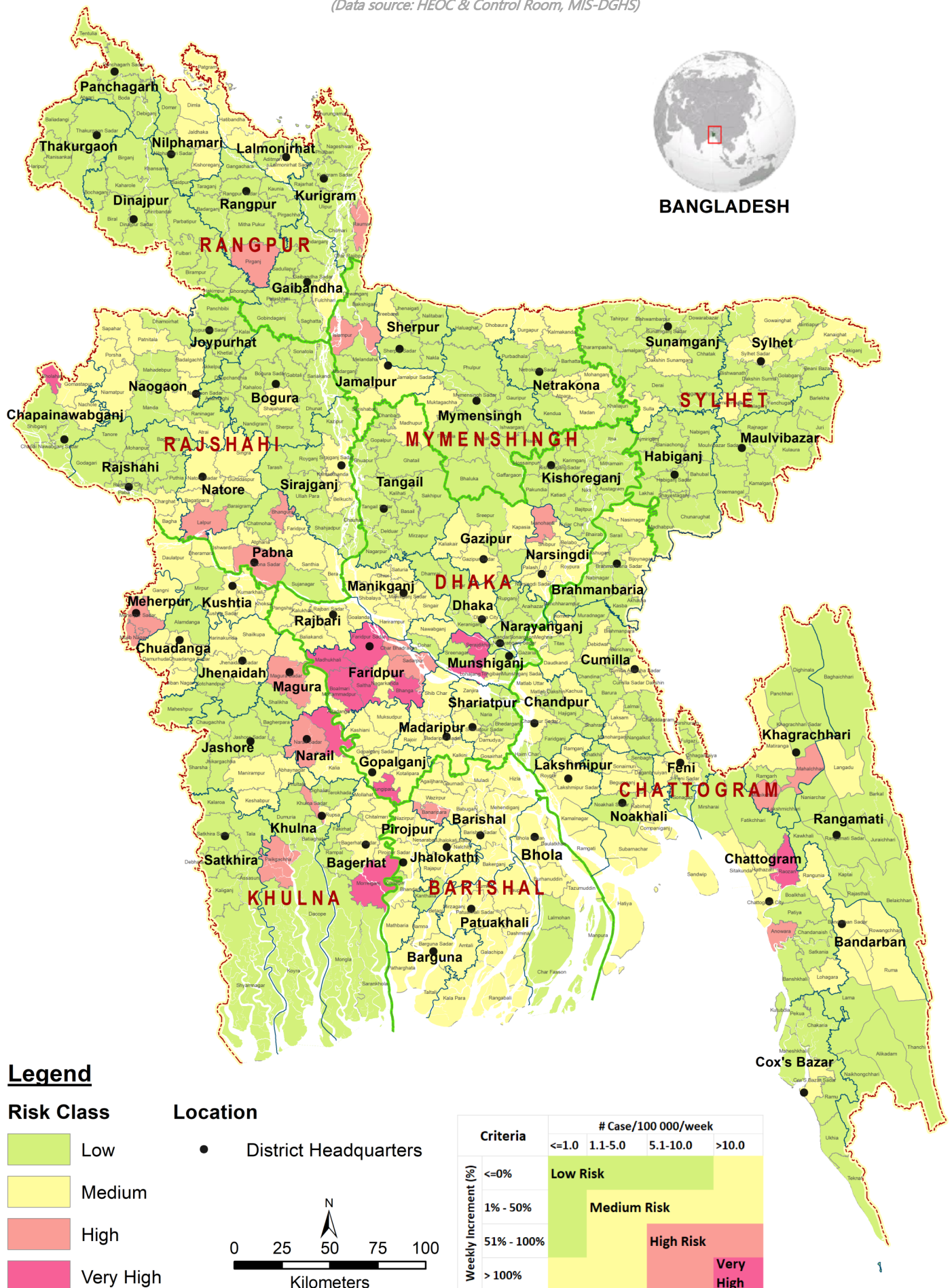
(Data source: HEOC & Control Room, MIS-DGHS)



- In the reporting week, all 64 districts have reported cases ranging from 1 (in Panchagarh) to 5 104 (in Dhaka). The majority of districts showed a decreasing trend except 18/64 especially Faridpur, Gazipur, Meherpur, Kushtia, Pabna, Munshiganj, and Barishal districts which showed an upward trend.
- A higher case density (>20 per 100 000 population per week) was reported in Manikganj, Dhaka, Magura, Barishal, Faridpur, Pirojpur, Patuakhali, Madaripur, Lakshmipur, Narail, Barguna, Rajbari, and Meherpur districts. Among rest of the districts, 12 districts were in the group of 11-20, 11 districts were in the group of 6-10, and 28 districts were in the group of ≤5 cases per 100 000 population per week [Figure 1].
- Based on an in-house dengue risk categorization using two criteria (weekly increment (%) and case per 100k population per week – see map legend) [Figure 2]. It was revealed that 12 Upazilas were at the very high-risk level, 19 were at high-risk, 185 were at medium risk and 276 were at low-risk level.
- The very-high risk upazilas are Faridpur Sadar, Bhanga, Boalmari, Madhukhali and Saltha upazilas in Faridpur district, Raozan in Chattogram district, Tungipara in Gopalganj district, Louhajang and Serajdikhan upazilas in Munshiganj district, Morrelganj in Bagerhat district, Lohagara in Narail district and Bholahat in Chapai Nawabganj district [Figure 2].
- During week 39, a total of 97 deaths were reported, which was 11.5% higher than the previous week 38 (n=87). Weekly deaths were 45 this week and 39 in the previous week in Dhaka city and in the rest of the country, weekly deaths were 52 this week and 48 in the previous week).

Figure 2: Dengue Risk Map by Upazila, Week 39, 2023

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



- At the divisional level, the number of deaths has increased in Dhaka, Khulna, Rajshahi, and Rangpur divisions in the reporting week (epi-week 39). Dhaka division reported the highest number of deaths (67 this week and 58 in the previous week, 16% higher), followed by Barishal (12 this week and 16 in the previous week, 25% lower), Khulna (7 this week and 3 in the previous week), Rajshahi (5 this week and 2 in the previous week), Chattogram (4 this week and 6 in the previous week), Rangpur (2 this week and 1 in the previous week), Mymensingh reported 0 deaths this week and 1 in the previous week, and Sylhet reported 0 deaths both in this week and the previous week.
- Among the deaths (n=1 006), 91% (913) were reported from tertiary facilities, 6% (64) from secondary facilities and 3% (29) from primary facilities. In the reporting week (n=97), this proportion was 85%, 9% and 6% respectively.
- During the reporting week, the highest number of deaths were reported from Faridpur Medical College Hospital (14), followed by Dhaka Medical College Hospital (11), Sher-e-Bangla Medical College Hospital (9), Mugda Medical College (6), Enam Medical College (6), Kurmitola General Hospital (4), and the remaining 47 are from different public and private hospitals in the country [Table 2].
- Around 82% of death cases (823/1 006) are occurring within the first 3 days of hospitalization at the hospital of death and 25% of the deaths occurred on the same day they were hospitalised. The main cause is Dengue Shock Syndrome (68%) followed by Expanded Dengue Syndrome (21%), Dengue Haemorrhagic Fever (7%) and Dengue Fever with Comorbidity (4%).
- Among Dengue Cases, Male vs Female ratio remains 61% vs 39%. Majority of the cases was observed among the age group of 11-40 yrs. (65%). Sex ratio among the deaths is 44% vs 56% for Male vs Female. Most deaths were observed among the age group of 21-65 yrs. (71%).
- The overall CFR by gender is 0.70% (568/80 935) and 0.35% (438/125 353) among females and males, respectively. However, the difference in CFR between the genders is narrowing down with 0.62% (48/7 694) and 0.45% (49/10 869) this week, respectively, for females and males [Figure 3].

Table 2: Weekly dengue deaths, 2023

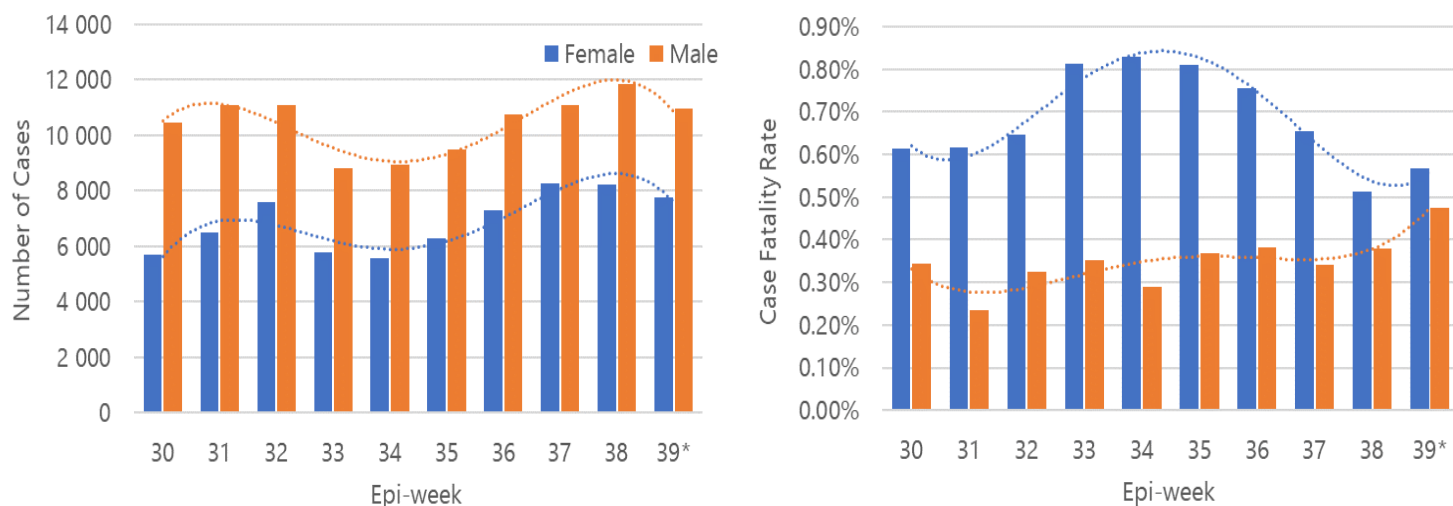
(Data source: HEOC & Control Room, MIS-DGHS)

Hospitals in Dhaka City	Cumulative (01 JAN – 01 OCT 2023)			Week 39	
	Cases	Deaths	CFR	Cases	Deaths
Dhaka MMCH	6425	154	2.4%	358	11
Mugda MCH	11164	126	1.1%	429	6
Sir Salimullah MCH	6695	46	0.7%	454	3
Kurmitola General	5271	37	0.7%	473	4
DNCC Dedicated Hosp.	6247	37	0.6%	488	0
Enam MC & Hosp.	738	27	3.7%	119	6
Shishu Hospital & Inst.	1561	19	1.2%	111	1
Square Hospitals Ltd.	889	15	1.7%	33	1
Asgar Ali Hospital	1575	14	0.9%	52	0
Green Life Hopital Ltd.	1060	14	1.3%	56	2

Hospitals in Rest of the Country	Cumulative (01 JAN – 01 OCT 2023)			Week 39	
	Cases	Deaths	CFR	Cases	Deaths
SBMCH, Barishal	5456	70	1.3%	511	9
Faridpur MCH	2144	53	2.5%	366	14
Chattogram MCH	2896	46	1.6%	284	2
Khulna MCH	1836	13	0.7%	253	2
Rajshahi MCH	1953	10	0.5%	307	2
Mymensingh MCH	2578	8	0.3%	174	0
Satkhira MCH	372	5	1.3%	54	0
Manikganj MCH	2281	5	0.2%	378	0
SZRMCH, Bogura	556	4	0.7%	50	2
Patuakhali MCH	2663	4	0.2%	292	1

Figure 3: Weekly Dengue Case and CFR by Gender, 2023

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



- No new serotyping was reported during the week and the number of known serotyped samples remained at 445 and the overall proportion of circulating dengue types are DENV-1 (2.5%), DENV-2 (65.6%), DENV-3 (27.4%), DENV-4 (0.2%), and coinfection with DENV2+DENV3 (4.3%).
- icddr,b conducted a Phase II clinical trial of TV005 on volunteers aged 1–50 years at a single clinical site in Dhaka city. This has been published recently in [The Lancet Infectious Disease](#). The vaccine was developed by the NIH (National Institutes of Health) in 2016. With 3 years of follow-up, the single-dose tetravalent dengue vaccine, TV005, was well tolerated and immunogenic for all four serotypes in young children to adults, including individuals with no previous dengue exposure. However, a phase 3 clinical trial will be needed to use this vaccine in general population.

Case Management

- Two WHO clinical management experts visited Kurmitola General Hospital, Dhaka North City Corporation makeshift hospital, and Shahid Suhrawardy Medical College Hospital in Dhaka, and discussed the current dengue patient management in medicine and paediatric ward, including the ICU. They have provided feedback to physicians and nursing staff while observing the different dengue patients.

Risk Communication & Community Engagement

- The message development sub-committee developed a few draft messages to promote awareness and compliance among medicine retailers on not selling non-steroidal anti-inflammatory drugs (NSAIDs) and antibiotics without prescription.
- As RCCE focal, UNICEF has proposed a tentative date of 16th-18th October 2023 to conduct the "Message Development workshop." RCCE focal from WHO and UNICEF will conduct the workshop to develop standardized messages and a community engagement plan for a long-term campaign for Dengue outbreak response.
- WHO has shared a document with useful URLs on the Dengue response and another Bangla IEC material on Dengue awareness and prevention with Google to disseminate through their platform.

Situation update of FDMN Camp

- During week 39, 274 new cases (NS1 or IgM positive) and no deaths were reported in the FDMN camps which made the cumulative number of 12 224 cases and 14 deaths (CFR: 0.1%). The CFR is 1.1% according to the case definition of national case reporting (i.e., dengue NS1 or IgM test-positive persons hospitalized in the reporting health facilities).
- All the 33 FDMN camps have reported cases, however the hotspots are Camp 3 (50% cases) and the surrounding areas (camps 1W, 4, 11 and 9) in Ukhia.
- In the FDMN camps, the epi-curve of dengue cases has shown a remarkable turndown from week 31 of this year. The main contributors to the curve's decline were well-coordinated interventions, early case detection, and integrated vector control measures.

