

Situation update of Dengue 2023 (As of 14th August, 2023)

Dengue is a viral infection transmitted to humans through the bite of infected Aedes mosquitoes. Dengue is widespread throughout the tropics, with local variations in risk influenced by climate parameters as well as social and environmental factors. Dengue is caused by a virus of the Flaviviridae family and there are four distinct, but closely related, serotypes of the virus that cause dengue (DENV-1, DENV-2, DENV-3 and DENV-4).

Dengue has become a rapidly growing concern in Nepal. The country has actively conducted vector surveillance in various districts, revealing the presence of Aedes aegypti and Aedes albopictus mosquitoes, which are known vectors for dengue transmission. Nepal has a historical record of all four dengue serotypes circulating, but in 2022, DENV-1 and DENV-3 were the most prevalent, with no evidence of DENV-4. In that same year, Nepal reported 54,784 dengue cases and 88 deaths, marking the highest number ever recorded in the country. This figure was more than three times the number of cases reported in 2019.

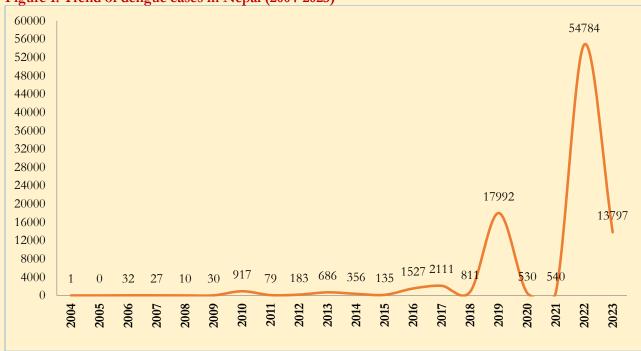


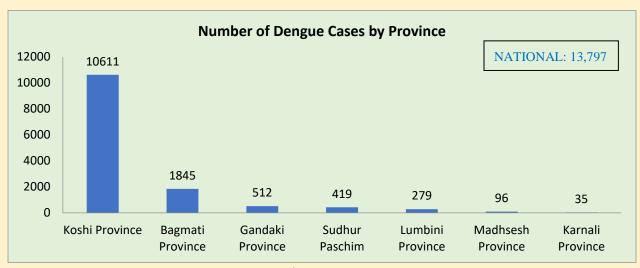
Figure 1: Trend of dengue cases in Nepal (2004-2023)

Source: EWARS and Line-Listing from Districts (as of 14th August 2023)

As of 14th August, 2023 a total of 13,797 dengue cases have been identified from 74 districts, with Koshi province reporting highest number (10611), followed by Bagmati province (1845), Gandaki Province (512) and Sudurpaschim Province (419) as listed details in Figure 2.



Figure 2: Number of Dengue cases by Provinces

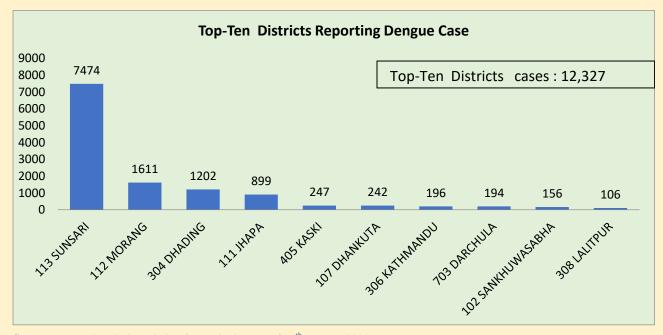


Source: EWARS and Line-Listing from Districts (as of 14th August, 2023)

The top 10 districts account for **89.3%** of all reported cases **(12,327 cases)**, while the cases are sporadic in other districts (Table 1). These top 10 districts include Sunsari (7474), Morang (1611), Dhading (1202), Jhapa (899), Kaski (247), Dhankuta (242), Kathmandu (196), Darchula (194), Sankhuwasabha (156) and Lalitpur (106) as shown in Figure 3.

The mortality of **ten dengue cases have been verified**, with one case associated with severe dengue shock syndrome, and the remaining nine cases resulting from dengue along with other comorbidities.

Figure 3: Top 10 districts reporting dengue cases (2023, EWARS and District line list)



Source: EWARS and Line-Listing from Districts (as of 14th August, 2023)



Interventions and Activities conducted for Dengue Prevention and Control

- The comprehensive Action Plan on Dengue Prevention and Control has been developed by EDCD, which has been disseminated to all provinces, districts and local levels.
- EDCD has been conducting routine surveillance of dengue cases through the Early Warning and Reporting System (EWARS). The line-lists of Dengue cases have been shared with 92 local levels in 66 districts to initiate timely response.
- Two separate rounds of Clinical orientation on Dengue with a focus on clinical case management was recently organized by EDCD in Kathmandu and Sunsari. Over 160 healthcare professionals, including doctors and nurses, attended, and gained valuable insights from these informative sessions.
- In July, the EDCD held a series of advocacy and sensitization meetings involving elected representatives from various local levels in Kathmandu, Lalitpur, Bhaktapur, Chitwan and Sunsari Districts. In the Kathmandu valley, these meetings took place in the presence of the Honorable Minister of Health and Population and other senior officials from the MOHP. The advocacy meeting in Sunsari was specifically convened in response to the surge in dengue cases observed in recent months.
- The Epidemiology and Disease Control Division (EDCD) is actively conducting a series of sensitization meetings with stakeholders from different workplaces to raise awareness about Dengue Prevention and Control. The EDCD has successfully completed sensitization meetings with the Automechanic Proprietors' Association of Nepal and the Nepal Recollection and Recyclers' Association (Kawadi)
- The Ministry of Health and Population (MOHP) has initiated a campaign encouraging all public offices to conduct a cleanliness campaign in their office premises for at least 10 minute on every Friday at 10:30 am.
- EDCD is maintaining a regular communication and collaboration with relevant levels, partners, and stakeholders to enhance the recording, reporting, and response to dengue.
- Local levels and health offices in various districts have initiated a range of interventions, including "search and destroy" campaigns, community awareness programs, and multi-stakeholder engagement efforts.
- Prevention and control, which is regularly distributed through online and social media channels.



- In July, media sensitization was conducted in Kathmandu involving media professionals from diverse platforms, including online, print, radio, and television media.
- Dengue test diagnostic kits are being supplied to provinces and districts on a need basis.
- A joint program review of vector-borne diseases, including dengue, was undertaken by a team of national and international experts. This review assessed the issues and challenges related to dengue prevention and control and identified the key priorities for action.
- In collaboration with NHEICC, EDCD has created a flyer for dengue prevention and control, which is regularly, distributed through online and social media channels.
- In August, the EDCD organized advocacy and sensitization meetings with elected representatives from different local levels in Dhading and simultaneously conducted clinical orientation sessions for medical doctors, nurses, and paramedics.
- In the year 2023, serotyping of the Dengue virus has been performed in the Dhading and Sunsari districts..

Table Number 1: Dengue cases reported by month at districts

Summary of Dengue reported cases based on EWARS reporting										
01 Jan -14 August 2023										
Province	Districts	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Grand Total
1	113 SUNSARI	6	2	3	1	1	667	3731	3063	7474
1	112 MORANG	2	2	3	3	1	7	739	854	1611
3	304 DHADING	2	1	5	41	18	78	510	547	1202
1	111 JHAPA	5	2	6	3	0	8	453	422	899
4	405 KASKI	2	1	0	27	35	42	101	39	247
1	107 DHANKUTA	0	0	0	0	0	7	144	91	242
3	306 KATHMANDU	10	4	4	1	2	11	64	100	196
7	703 DARCHULA	9	33	117	15	9	5	3	3	194
1	102 SANKHUWASABHA	0	1	0	0	13	30	31	81	156
3	308 LALITPUR	4	3	1	0	2	8	20	68	106
3	307 BHAKTAPUR	5	9	12	5	2	2	0	58	93
3	313 CHITAWAN	14	1	1	0	0	5	25	44	90
4	407 TANAHU	0	0	0	1	4	7	3	73	88
7	709 KANCHANPUR	2	12	4	7	4	5	23	24	81
1	108 TERHATHUM	0	2	0	0	0	13	22	43	80
1	106 BHOJPUR	0	0	0	1	0	3	24	47	75
4	404 MYAGDI	7	8	0	6	6	4	27	11	69
5	506 PALPA	1	4	1	4	5	9	12	29	65



5	508 RUPANDEHI	7	6	4	3	0	7	19	14	60
5	510 DANG	4	0	0	3	4	6	2	36	55
7			-	-	-	-	-		19	
	707 ACHHAM	1	1	1	2	5	6	15	_	50
3	305 NUWAKOT	0	0	0	2	2	15	10	20	49
7	708 KAILALI	2	2	1	1	0	4	16	22	48
2	201 SAPTARI	0	0	0	1	0	0	3	32	36
2	202 SIRAHA	1	1	2	0	0	1	0	29	34
5	511 BANKE	1	1	0	2	1	8	10	9	32
3	310 RAMECHHAP	11	11	0	0	0	1	2	5	30
4	406 LAMJUNG	0	0	1	7	15	2	3	0	28
3	312 MAKWANPUR	1	0	2	1	0	3	7	12	26
4	401 GORKHA	1	0	0	0	2	1	1	21	26
5	505 ARGHAKHANCHI	0	1	1	0	9	3	3	8	25
4	408 NAWALPARASI EAST	5	3	0	2	2	4	0	8	24
3	309 KAVREPALANCHOK	7	2	0	0	0	1	3	7	20
1	101 TAPLEJUNG	0	0	0	0	0	0	9	8	17
1	110 ILAM	0	0	0	0	0	2	3	12	17
5	512 BARDIYA	5	1	1	1	2	1	0	6	17
3	311 SINDHULI	1	0	4	1	0	2	2	6	16
1	109 PANCHTHAR	0	1	0	0	0	0	4	9	14
7	701 BAJURA	1	0	1	0	0	2	0	10	14
6	608 RUKUM WEST	0	1	1	0	1	0	4	6	13
1	114 UDAYAPUR	0	1	1	0	0	1	1	8	12
7	706 DOTI	0	2	0	0	2	0	1	7	12
4	403 MUSTANG	0	0	11	0	0	0	0	0	11
3	302 SINDHUPALCHOK	1	0	0	0	0	1	0	8	10
7	702 BAJHANG	0	0	1	0	1	4	0	4	10
1	104 OKHALDHUNGA	0	0	0	0	0	1	1	6	8
2	208 PARSA	1	0	0	0	0	1	4	2	8
4	410 PARBAT	2	0	0	2	2	1	1	0	8
5	509 KAPILBASTU	3	2	1	0	1	1	0	0	8
6	601 DOLPA	0	0	0	3	0	3	2	0	8
5	507 NAWALPARASI WEST	0	0	2	0	0	0	0	5	7
1	105 KHOTANG	0	2	1	0	0	0	3	0	6
2	206 RAUTAHAT	0	0	0	0	1	0	1	4	6
4	409 SYANGJA	1	0	0	0	0	2	0	3	6
5	504 GULMI	1	1	3	0	0	0	0	0	5
6	606 DAILEKH	0	0	0	0	0	1	2	2	5
7	704 BAITADI	0	1	3	0	1	0	0	0	5
7	705 DADELDHURA	0	1	1	0	0	0	0	3	5
2	205 SARLAHI	0	1	0	1	1	1	0	0	4
2	207 BARA	1	1	0	1	0	0	1	0	4
3	301 DOLAKHA	2	0	0	1	0	0	0	1	4
4	411 BAGLUNG	0	0	0	2	1	1	0	0	4
6	610 SURKHET	0	0	2	1	0	1	0	0	4
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3	303 RASUWA	0	0	0	0	1	2	0	0	3
2	203 DHANUSA	0	0	0	0	0	0	0	2	2
2	204 MAHOTTARI	1	0	0	0	0	0	1	0	2
5	501 RUKUM EAST	0	0	0	1	0	1	0	0	2
5	503 PYUTHAN	0	0	0	0	0	0	0	2	2
6	604 JUMLA	0	0	0	0	0	0	2	0	2
4	402 MANANG	0	0	0	0	1	0	0	0	1
5	502 ROLPA	0	0	0	0	0	0	1	0	1
6	605 KALIKOT	0	0	0	0	0	0	0	1	1
6	607 JAJARKOT	0	0	1	0	0	0	0	0	1
6	609 SALYAN	0	0	0	0	1	0	0	0	1
1	103 SOLUKHUMBU	0	0	0	0	0	0	0	0	0
6	602MUGU	0	0	0	0	0	0	0	0	0
6	603 HUMLA	0	0	0	0	0	0	0	0	0
	Grand Total	130	128	203	153	158	1002	6069	5954	13797