

## Situation update of Dengue 2023 (As of 24 July, 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. Since January of 2023, again dengue cases have been continuously reporting and alarming in some district of Nepal.

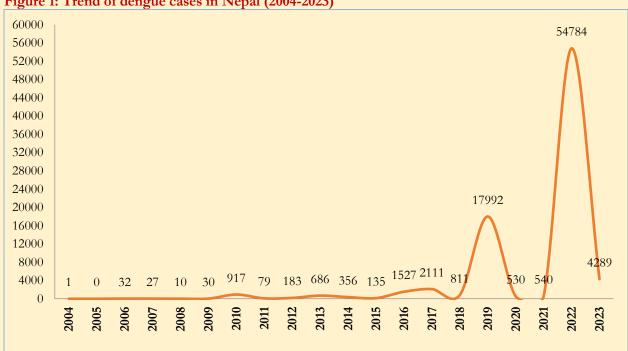


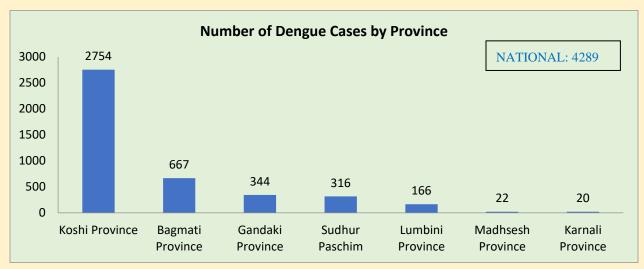
Figure 1: Trend of dengue cases in Nepal (2004-2023)

**Source:** EWARS and Line-Listing from Districts (as of 24 July 2023)

As of 24 July, 2023 a total of 4289 dengue cases have been identified from 69 districts, with Koshi province reporting highest number (2754), followed by Bagmati province (667), Gandaki Province (344) and Sudurpaschim Province (316) as listed details in Figure 2.



Figure 2: Number of Dengue cases by Provinces

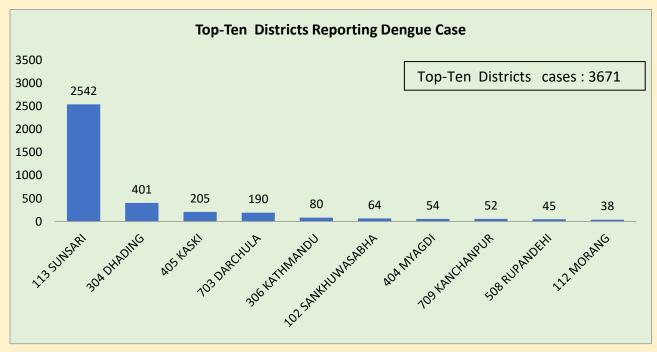


**Source:** EWARS and Line-Listing from Districts (as of 24 July 2023)

The top 10 districts account for **85** % of all reported cases (**3671 cases**), while the cases are sporadic in other districts (Table 1). These top 10 districts include Sunsari (2542), Dhading (401), Kaski (205) Darchula (190), Kathamandu (80) Sankhuwasabha (64), Myagdi (54) Kanchanpur (52), Rupandehi (45), Morang (38) as shown in Figure 3.

Mortality of 3 dengue cases has been verified and 1 associated with severe dengue shock syndrome and 2 from the dengue and 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 24 July 2023)



#### Interventions and Activities conducted for Dengue Prevention and Control

- The comprehensive Action Plan on Dengue Prevention and Control has been developed by EDCD, DoHS 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 all local levels in 69 districts to initiate timely response.
- Two separate rounds of Clinical case management orientation on Dengue were recently organized by EDCD in Kathmandu and Sunsari. Over 300 healthcare professionals, including doctors and nurses, attended physically and virtually, and gained valuable insights from these informative sessions.
- During 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 minutes on every Friday at 10:00 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.



- 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

Summary of Dengue reported cases based on EWARS reporting									
01 Jan - 24 July, 2023									
Province	Districts	Jan	Feb	Mar	Apr	May	Jun	Jul	<b>Grand Total</b>
1	113 SUNSARI	6	2	3	1	1	667	1862	2542
3	304 DHADING	2	1	5	41	18	78	256	401
4	405 KASKI	2	1	0	27	35	42	98	205
7	703 DARCHULA	9	33	117	15	9	5	2	190
3	306 KATHMANDU	10	4	4	1	2	11	48	80
1	102 SANKHUWASABHA	0	1	0	0	13	30	20	64
4	404 MYAGDI	7	8	0	6	6	4	23	54
7	709 KANCHANPUR	2	12	4	7	4	5	18	52
5	508 RUPANDEHI	7	6	4	3	0	7	18	45
1	112 MORANG	2	2	3	3	1	7	20	38
3	313 CHITAWAN	14	1	1	0	0	5	17	38
1	111 JHAPA	5	2	6	3	0	8	12	36
3	307 BHAKTAPUR	5	9	12	5	2	2	0	35
5	506 PALPA	1	4	1	4	5	9	11	35
7	707 ACHHAM	1	1	1	2	5	6	15	31
3	308 LALITPUR	4	3	1	0	2	8	11	29
1	108 TERHATHUM	0	2	0	0	0	13	13	28
4	406 LAMJUNG	0	0	1	7	15	2	0	25
3	310 RAMECHHAP	11	11	0	0	0	1	1	24
3	305 NUWAKOT	0	0	0	2	2	15	4	23
5	511 BANKE	1	1	0	2	1	8	9	22
7	708 KAILALI	2	2	1	1	0	4	12	22
5	510 DANG	4	0	0	3	4	6	2	19
5	505 ARGHAKHANCHI	0	1	1	0	9	3	3	17
4	408 NAWALPARASI EAST	5	3	0	2	2	4	0	16



1	107 DHANKUTA	0	0	0	0	0	7	7	14
1	106 BHOJPUR	0	0	0	1	0	3	8	12
3	309 KAVREPALANCHOK	7	2	0	0	0	1	2	12
4	407 TANAHU	0	0	0	1	4	7	0	12
4	403 MUSTANG	0	0	11	0	0	0	0	11
5	512 BARDIYA	5	1	1	1	2	1	0	11
3	311 SINDHULI	1	0	4	1	0	2	2	10
4	410 PARBAT	2	0	0	2	2	1	1	8
5	509 KAPILBASTU	3	2	1	0	1	1	0	8
3	312 MAKWANPUR	1	0	2	1	0	3	0	7
6	601 DOLPA	0	0	0	3	0	3	0	6
6	608 RUKUM WEST	0	1	1	0	1	0	3	6
7	702 BAJHANG	0	0	1	0	1	4	0	6
2	202 SIRAHA	1	1	2	0	0	1	0	5
4	401 GORKHA	1	0	0	0	2	1	1	5
5	504 GULMI	1	1	3	0	0	0	0	5
7	704 BAITADI	0	1	3	0	1	0	0	5
1	101 TAPLEJUNG	0	0	0	0	0	0	4	4
1	105 KHOTANG	0	2	1	0	0	0	1	4
1	110 ILAM	0	0	0	0	0	2	2	4
2	205 SARLAHI	0	1	0	1	1	1	0	4
2	207 BARA	1	1	0	1	0	0	1	4
2	208 PARSA	1	0	0	0	0	1	2	4
4	411 BAGLUNG	0	0	0	2	1	1	0	4
6	610 SURKHET	0	0	2	1	0	1	0	4
7	701 BAJURA	1	0	1	0	0	2	0	4
7	706 DOTI	0	2	0	0	2	0	0	4
1	109 PANCHTHAR	0	1	0	0	0	0	2	3
1	114 UDAYAPUR	0	1	1	0	0	1	0	3
3	301 DOLAKHA	2	0	0	1	0	0	0	3
3	303 RASUWA	0	0	0	0	1	2	0	3
4	409 SYANGJA	1	0	0	0	0	2	0	3
1	104 OKHALDHUNGA	0	0	0	0	0	1	1	2
2	201 SAPTARI	0	0	0	1	0	0	1	2
2	204 MAHOTTARI	1	0	0	0	0	0	1	2
3	302 SINDHUPALCHOK	1	0	0	0	0	1	0	2
5	501 RUKUM EAST	0	0	0	1	0	1	0	2
5	507 NAWALPARASI WEST	0	0	2	0	0	0	0	2
6	606 DAILEKH	0	0	0	0	0	1	1	2
7	705 DADELDHURA	0	1	1	0	0	0	0	2
2	206 RAUTAHAT	0	0	0	0	1	0	0	1
4	402 MANANG	0	0	0	0	1	0	0	1
6	607 JAJARKOT	0	0	1	0	0	0	0	1
6	609 SALYAN	0	0	0	0	1	0	0	1
1	103 SOLUKHUMBU	0	0	0	0	0	0	0	0



2	203 DHANUSA	0	0	0	0	0	0	0	0
5	502 ROLPA	0	0	0	0	0	0	0	0
5	503 PYUTHAN	0	0	0	0	0	0	0	0
6	602MUGU	0	0	0	0	0	0	0	0
6	603 HUMLA	0	0	0	0	0	0	0	0
6	604 JUMLA	0	0	0	0	0	0	0	0
6	605 KALIKOT	0	0	0	0	0	0	0	0
	Grand Total	130	128	203	153	158	1002	2515	4289