EPIDEMIOLOGY AND DISEASE CONTROL DIVISION QUARTERLY BULLETIN

July - September 2024

In this issue

Editor

Dr Yadu Chandra Ghimire

Contact Information

Epidemiology and Disease Control Division, Teku, Kathmandu
email: info@edcd.gov.np
EDCD/Hello Swasthya Call centre: **1115**

Acknowledgements

The Epidemiology and Disease Control Division would like to thank WHE team and all partners and stakeholders for their support in disease control and program activities.

Editorial

Strengthening disease surveillance, preparedness, and response is essential to mitigating the impact of outbreaks and public health emergencies. The Epidemiology and Disease Control Division (EDCD) continues to coordinate efforts to detect, investigate, and respond to emerging threats while maintaining routine surveillance and control programs for priority diseases. EDCD remains committed to addressing non-communicable diseases (NCDs), mental health, and neglected tropical diseases (NTDs), including vector-borne diseases (VBDs). Ongoing surveillance, risk communication, and targeted interventions are crucial to reducing disease burden and ensuring equitable healthcare access across Nepal.

Collaboration among stakeholders remains key to enhancing Nepal's public health system, ensuring timely detection of outbreaks, and implementing effective prevention and control measures.

What is presented in this bulletin?

This bulletin provides an overview of key public health events and outbreaks, along with actions and responses taken during the reporting period. It highlights initiatives aimed at improving early detection, risk assessment, and coordinated responses to emerging health threats such as cholera, mpox, and preparedness for post-flood outbreak response. The bulletin also covers ongoing programs addressing non-communicable diseases (NCDs), mental health, and neglected tropical diseases (NTDs), including vector-borne diseases (VBDs). Additionally, it features capacity-building activities, such as training sessions and orientations, to enhance health system resilience and foster multisectoral collaboration.

1. Key events and outbreaks

Events/Disease	No of cases	No of deaths	Date of reporting	Comments/Action taken
Diarrheal Deaths Narainapur, Banke district, Lumbini Province	10	4	4 September 2024	Investigated by local Rapid Response Team (RRT) with support from districts and EDCD. Cholera death ruled out. Health and sanitation awareness conducted. Verbal autopsy supported by provincial government. Outbreak associated with poor sanitation and food hygiene in vulnerable communities.
Cholera	95 confirmed cases	0	27 September 2024	Active case searches, extensive risk communication, and improved WASH interventions in affected districts.
Mushroom poisoning, Bajhang	3	0	21 July 2024	Hello Health 1115 contacted Health Office Bajhang and got information that three individuals from Durgathali Rural Municipality fell ill after consuming wild mushrooms. They experienced vomiting and unconsciousness and were admitted to Bajhang Hospital. Their condition stabilized and they were discharged.
Mushroom poisoning, Salyan	5	0	22 July 2024	Hello Health 1115 contacted Bagchaur Municipality and was informed that five family members began experiencing symptoms after consuming mushrooms on 5th Shrawan, 2081. They were admitted to the district hospital and are currently undergoing treatment. Their condition is reported as normal
Mushroom poisoning, Dailekh	4	0	27 July 2024	Hello Health 1115 contacted Dungeshwor Village Municipality and District Hospital Dailekh, which confirmed that a family of four fell ill after consuming wild mushrooms collected from a forest. They were treated and discharged the following evening.
Mushroom poisoning, Bajhang	2	0	3 August 2024	Hello Health 1115 contacted Bajhang District Hospital and Dadeldhura Hospital, confirming

				that one patient was admitted to ICU but later stabilized.
Mushroom Poisoning, Gulmi	8	0	12 August 2024	Hello Health 1115 contacted Resunga Municipality Office and Lumbini Teaching Hospital. Patients were admitted for observation and later discharged.
Food Poisoning after consuming fish	3	3	13 August 2024	Hello Health 1115 contacted Kalaiya Hospital, Narayani Hospital, and National Medical College. The children suffered poisoning after consuming fish. They were referred to multiple hospitals but succumbed to their condition.
Food poisoning	80	0	12 September 2024	Hello Health 1115 contacted Arjun Dhara Municipality and got informed that approximately 150 individuals attended the puja and consumed prasad, which included sel roti, puri, vegetables, and pickles prepared at the residence. Symptoms such as diarrhea, vomiting, fever, and abdominal pain were reported. The suspected source of food poisoning is the pickles (made with cucumber, potatoes, and green peas), as those who avoided the pickles did not experience any health issues. Tube-well water was used for preparing the feast and for drinking. Out of the 150 attendees, 73 patients were taken to Arjundhara City Hospital. Among them, 15-20 were being prepared for referral to the Provincial Hospital in Bhadrapur, while 3 have fully recovered. Additionally, 3 patients are admitted to B&C Medical College Teaching Hospital and Research Center, and 3-4 relatives are in Mechinagar, Jhapa.
Japanese encephalitis	1	1	24 September 2024	Hello Health 1115 (EDCD Call Center for Disease Surveillance) contacted Damak Municipality, Nobel Hospital, and Amda Hospital and got informed that the patient was admitted to Nobel Hospital, Biratnagar, with suspected dengue and symptoms of high fever,

				headache, and vomiting. The patient's residential area has pig farms nearby, prompting the local government to plan inspections and testing of the farms for further investigation. Dengue IgM was positive, and an MRI confirmed flavivirus encephalitis. The family had weak financial condition so, they couldn't afford service at Nobel Hospital and were referred to Amda Hospital, Damak where he succumbed to death.

2. Cholera case detection and investigation

As of 27 September 2024, Nepal reported 95 culture-confirmed cholera cases from nine distinct foci, with Vibrio cholerae O:1 Ogawa and Hikojima identified. No cholera-related deaths were recorded, although most cases required hospitalization. Outbreaks were observed in Lalitpur and Kathmandu, primarily linked to poor WASH conditions and contaminated water sources. In Kathmandu, flooding was a key predisposing factor.

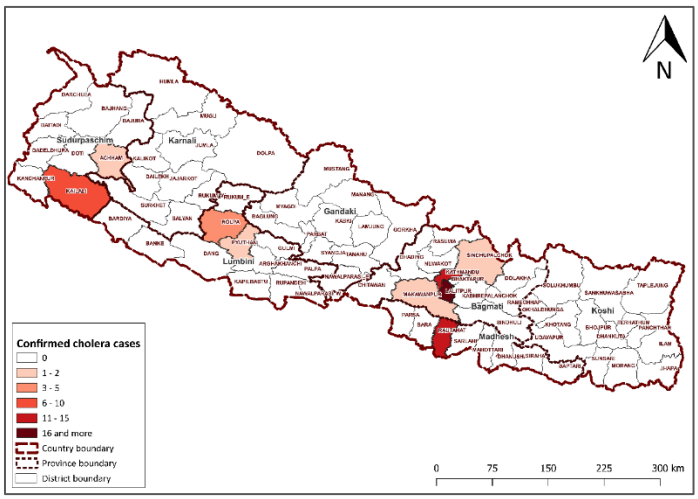


Figure 1 Map showing the distribution of cholera confirmed cases

Sporadic cases were also detected in Pyuthan, Sindhupalchowk, Rautahat, and Makawanpur. Response efforts included active case searches, enhanced intervention measures, and extensive risk communication campaigns in affected areas.

In Kailali, 8 confirmed cases (28.6%) were reported from a single household comprising 6 families (28 members) residing in Dhangadhi-1, Tribeni Chowk. The outbreak was attributed to fecal contamination of stored drinking water, likely introduced by a carrier source.

Figure 2 Investigation of Cholera Outbreak in Rehab center of Lalitpur Municipality

Pyuthan reported 2 confirmed cases (20%) from a single family of 10 members in Gaumukhi Rural Municipality Ward-5, Lumbini Province. Two individuals had a recent travel history to India, though no definitive epidemiological linkage was established.

Rautahat reported 83 suspected cholera cases, with 12 confirmed. Most cases occurred within a single community with poor WASH and sanitation practices. The outbreak was likely caused by sewage contamination of the community water supply, with visible damage to water lines allowing drainage infiltration.

3. Flood preparedness and response

On 30 September 2024, the Epidemiology and Disease Control Division (EDCD), under the chairmanship of the Director General, convened a Rapid Response Committee meeting. The objective was to assess preparedness for potential post-flood disease outbreaks following the recent flooding across various districts. Stakeholders from the Department of Health Services (DOHS) and supporting partners participated, providing updates on the flood situation and response efforts across the country. Key discussions included the preparedness level of surveillance and response systems, with a particular focus on logistics such as diagnostic kits and medicines. The committee emphasized the need for timely intervention and enhanced coordination to prevent disease outbreaks in the affected areas.

Figure 3 Rapid Response Committee meeting at EDCD

4. Mpox preparedness and response:

Following the declaration of Mpox as a Public Health Emergency of International Concern (PHEIC) on August 14, 2024, for the second time, the Epidemiology and Disease Control Division (EDCD) initiated several preparedness measures to strengthen early detection, response, and case management. Key actions undertaken include:

- Updating the list of dermatologists across the country by coordinating with the Dermatologist Society and verifying previous focal persons.
- Providing testing kits to all provinces to facilitate timely diagnosis.
- Reviewing and confirming previous Mpox focal points for consultation in each province.
- Discussion with Sukraraj Tropical and Infectious Disease Hospital (STIDH), Teku, to prepare designated isolation beds for mpox cases.
- Orientation and information dissemination to enhance surveillance and notification of suspected fever with rash cases at ground crossings and Tribhuvan International Airport (TIA).
- Ensuring reagent availability for testing 300 individuals by the National Public Health Laboratory (NPHL).
- Preparing for a meeting with the Civil Aviation Authority of Nepal (CAAN) health staff at TIA and international airline staff to strengthen airport screening measures.
- Organizing an orientation session for call centers to improve public awareness and response mechanisms.
- Rapid risk assessment of re-introduction of mpox cases in Nepal

Figure 4 Mpox orientation to TIA staff and officials

5. Workshop on Multi-source Collaborative Surveillance in Nepal

From 21 to 23 August 2025, the Epidemiology and Disease Control Division (EDCD), with support from the WHO Country Office for Nepal, organized a three-day workshop on Multisource Collaborative Surveillance. The workshop emphasized the engagement of multiple stakeholders in controlling diarrheal disease outbreaks through a collaborative surveillance approach to support evidence-based decision-making. Facilitated by experts, the sessions provided valuable insights into collaborative disease surveillance, incorporating examples from various countries to enhance understanding and application.

Figure 5 Participants working in group during multi-source collaborative surveillance workshop

6. NCD/mental health

A. Orientation on National Cancer Control Strategy

The Provincial-Level Orientation Program on the National Cancer Control Strategy for Koshi Province and Madhesh Province was successfully conducted on September 3rd and 4th, 2024, in Biratnagar. This program was held under the stewardship of the Honorable Secretary of the Ministry of Health, Koshi Province, with participation from representatives of various provincial health ministries, provincial health directorates, hospitals, health science institutes, and healthcare workers.

Figure 6 Participants in orientation for National Cancer Control Strategy in Biratnagar

B. World Suicide Prevention Day

The World Suicide Prevention Day 2024 was successfully conducted on September 10th at the NHTC Hall, DoHS, under the stewardship of the Director General of DoHS. The event featured participation from various stakeholders and focused on the theme "Changing the Narrative on Suicide."

Figure 7 Presentation during World Suicide Prevention Day Program

7. Neglected tropical diseases/ vector borne diseases (NTD/VBD)

A. Onsite Coaching in 6 MMDP Care and Support Center of Koshi and Madhesh Province (2081/04/22 to 04/28)

Onsite coaching was conducted in six MMDP Care and Support Centers across (1) Madhesh and (5) Koshi Provinces. This initiative aimed to strengthen the capacity of healthcare providers, including hospital staff and health officials from DHO, through hands-on training in morbidity management and disability prevention (MMDP) services. The program focused on hospital's preparedness for patient care, and the implementation of MMDP guidelines, including patient tracking systems and case reporting. Through practical coaching, participants gained essential knowledge to enhance service delivery and ensure better management of lymphatic filariasis cases.

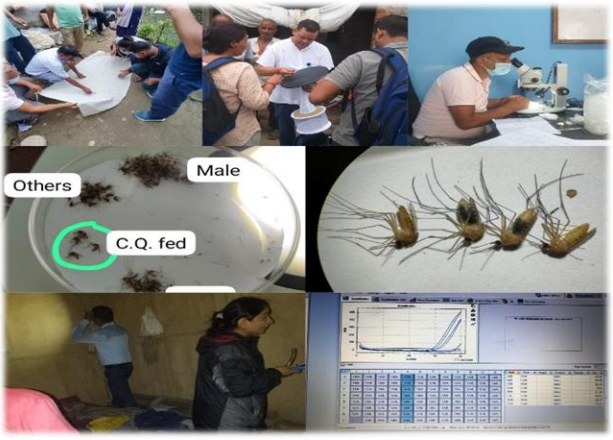
B. Kala-azar preparedness and response

A three-day Training of Trainers event on Indoor Residual Spraying (IRS) was organized from August 2-3 2024 where a total of 37 participants, including VBD focal persons from high-risk districts, provincial health directorates, and WHO's NTDs provincial coordinators participated. The training aimed to enhance the effectiveness of IRS interventions crucial to eliminating Kala-azar and Malaria in Nepal. Participants received both theoretical knowledge and practical experience in vector control strategies, equipment management, and safety protocols. The training, chaired by EDCD Director Dr. Yadu Chandra Ghimire highlighted the importance of high-quality IRS implementation in achieving Nepal's disease elimination goals.

Clinical orientations in Madhesh Province, Karnali Province, Palpa district and Kalikot district:

Several batches of clinical orientations was organized in Madhesh province and Karnali provinces covering all major hospitals to enhance the early diagnosis and treatment, one of strategies for elimination. A total of 144 benefitted from the orientation where medical officers, laboratory professionals, nursing staff, paramedics and medical recorders participated. Similarly, one batch each of clinical orientation in Kalikot and Palpa districts was organized, both districts being the highly-endemic. In Kalikot, 25 health workers and in Palpa 18 health workers received the orientation.

C. Molecular Xenomonitoring for Lymphatic Filariasis in Kailali and Banke District (2081/04/30 to 2081/06/20)



A MX study was conducted in Banke and Kailali districts using a 30-cluster survey method. Mosquitoes were collected via CDC light traps and manual methods, targeting female Culex quinquefasciatus and Aedes species. A total of 13,000 female C. quinquefasciatus mosquitoes were collected and analyzed using PCR for Wuchereria bancrofti DNA (ongoing). Results provided crucial insights into transmission risks. Findings highlight the need for continued surveillance, strengthened vector control, and community engagement to support LF elimination. Integrating MX into public health strategies can enhance decision-making and aid in preventing disease resurgence.