



Government of Nepal  
Ministry of Health and Population  
Department of Health Services  
Epidemiology and Disease Control Division

SITREP NO.

31

Monday, September 23, 2024

SITUATION REPORT ON DENGUE IN NEPAL- 2024

1-Jan to 23-Sep

Reported  
Dengue  
Cases

12644

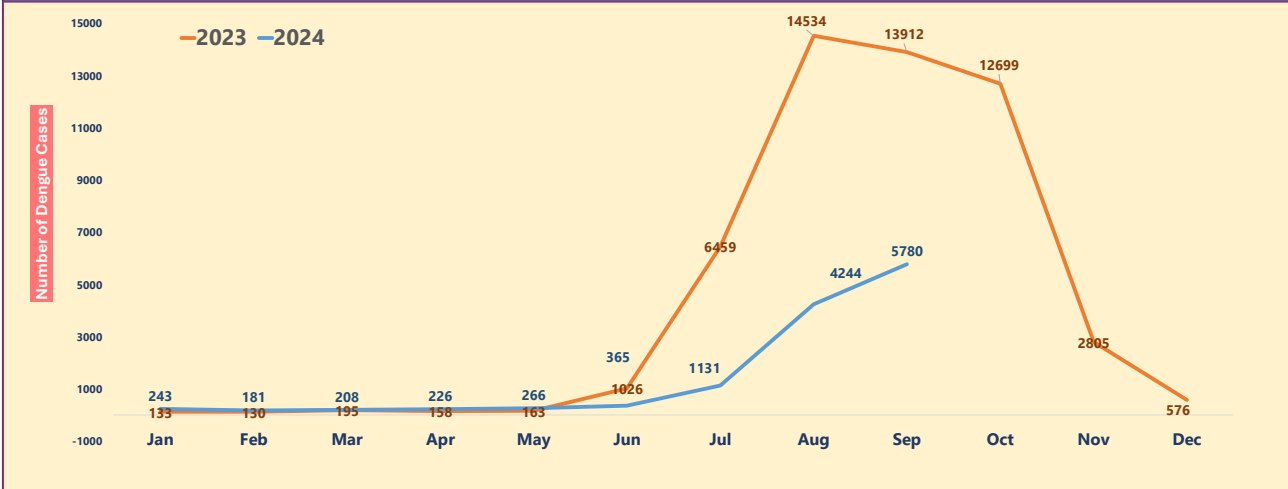
Verified  
Deaths\*

6

Affected Districts

76

MONTHLY TREND OF DENGUE CASES



DENGUE CASES BY PROVINCE

Province	No. of Dengue Cases	% of National Burden	Case per 100,000 population
KOSHI	1193	9.4%	24.0
MADHESH	245	1.9%	3.9
BAGMATI	3602	28.5%	57.7
GANDAKI	5971	47.2%	247.4
LUMBINI	819	6.5%	15.9
KARNALI	176	1.4%	10.4
SUDUR PASHCHIM	638	5.0%	23.9

TOP TEN DISTRICTS

District	No. of Dengue Cases	% of National Burden
405 KASKI	1903	15.1%
407 TANAHU	1645	13.0%
306 KATHMANDU	1540	12.2%
410 PARBAT	1110	8.8%
313 CHITAWAN	733	5.8%
401 GORKHA	451	3.6%
308 LALITPUR	347	2.7%
411 BAGLUNG	285	2.3%
409 SYANGJA	234	1.9%
708 KAILALI	215	1.7%

CONTACT US

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डेङ्गीबाट बच्न लामखुट्टेको टोकाईबाट जोगिऔं,  
व्यक्तिगत सुरक्षाका उपायहरु अपनाऔं !!

डेङ्गीबाट  
बच्न →

- पानी जम्मा गरि राखिएका पानीको ट्यांकी, ड्रम, गानी, बाटनीलाई लामखुट्टे छिर्न नपाउने गरी सम्बन्धित छोपेर राख्नुहोस् ।
- आफ्नो घर वरपर, कार्यस्थल र सार्वजनिक स्थानहरूमा फालिएका काम नलाग्ने भाँडाकुँडा, सिरी, बोटल, टिनका बट्टा, प्लास्टिकजन्य वस्तुहरू तथा पानी जम्न सक्ने अन्य भाँडा तथा सामग्रीहरूलाई पानी नजम्ने गरी व्यवस्थापन गर्नुहोस् ।
- छाना तथा अन्य स्थानमा जथाभावी फालिएका सवारी साधनका टायरहरूलाई पानी जम्न नपाउने गरी छोपेर राख्नुहोस् वा आकाशे पानीको पहुँचबाट टाढा राख्नुहोस् ।
- घर बाहिर वा भित्र राखिएका फूलका गमला वा गमला मुनिका प्लेटहरूमा जमेको पानी कमिनामा हप्पाको एक पटक फालेर गमला तथा प्लेटलाई सम्बन्धित सफा गर्नुहोस् ।
- विहान, दिउँसो, राती जुनसुकै बेला सुत्दा पनि झूलको प्रयोग गर्नुहोस् ।
- घर भित्र लामखुट्टे छिर्न नदिने सम्भव भएसम्म इयाल तथा टोकाईहरूमा सानो प्वाल भएको जाती प्रयोग गर्नुहोस् ।
- पुरा शरीर ढाक्ने तथा लामो बाहुला भएका लुगा लगाउनुहोस् ।
- शरीरको खुल्ला भागमा लामखुट्टे भगाउने मलम (Repellent) को प्रयोग गर्नुहोस् ।



# SITUATION OF CHOLERA IN NEPAL



(Lalitpur, Kathmandu, Kailali, Rolpa, Pyuthan, Makawanpur, Sindhupalchowk, Accham, Rautahat)

Ministry of Health and Population  
Department of Health Services  
Epidemiology and Disease Control Division  
Kathmandu, Nepal

## Situation Report #20 23 September 2024

### HIGHLIGHTS

As of 23 September 2024, a total of **95 culture confirmed cases** of Cholera has been identified from Lalitpur (54), Kathmandu (12), Kailali (8), Pyuthan (2), Makawanpur (1), Rolpa (4), Sindhupalchowk (1), Accham (1) and Rautahat (12) of Nepal.

New culture confirmed cases in the last 24 hours: **12**

Number of days since last confirmed case: **0 Days**

Current admission: **21**

**No deaths** associated with Confirmed Cholera has been reported as of today. Each district has separate focal outbreaks that are not linked to each other.

**Lalitpur: 19 July 2024:** 16-year-old male with suspected diarrhea and vomiting was confirmed as cholera on 22 July 2024 from a rehab center with additional 10 cases. Majority cases are **sporadic**.

**Kailali: 25 July 2024:** 2 cases of culture confirmed Cholera was reported from Dhangadhi Sub-Metropolitan, Ward-1, Kailali. Additional investigation identified 6 culture confirmed cases in a congregated household with 6 families. No new case detected till date.

**Kathmandu: 29 July 2024:** 1 new case identified from Balkhu. 2 stool confirmed case of Cholera reported till date. Active case finding by local RRT ongoing in Balkhu. Majority is **sporadic**

**Pyuthan: 4 August 2024:** 2 new culture confirmed cases of Cholera has been reported from Gaumukhi Rural Municipality, ward-5 from Lumbini Province.

**Makawanpur: 21 August 2024:** 1 case has been detected in Hetauda. Initiation of active case finding.

**Rolpa: 28 August 2024:** 4 new confirmed cases reported from Rolpa Hospital (Rolpa municipality ward 2 and 10). All recovered. No new cases reported

**Sindhupalchowk: 3 September 2024:** One case detected in a referred patient with symptoms of acute watery diarrhea. No new case detected following active case search.

**Accham: 12 September 2024:** 1 case reported from Accham, Mangalsen. No new cases reported

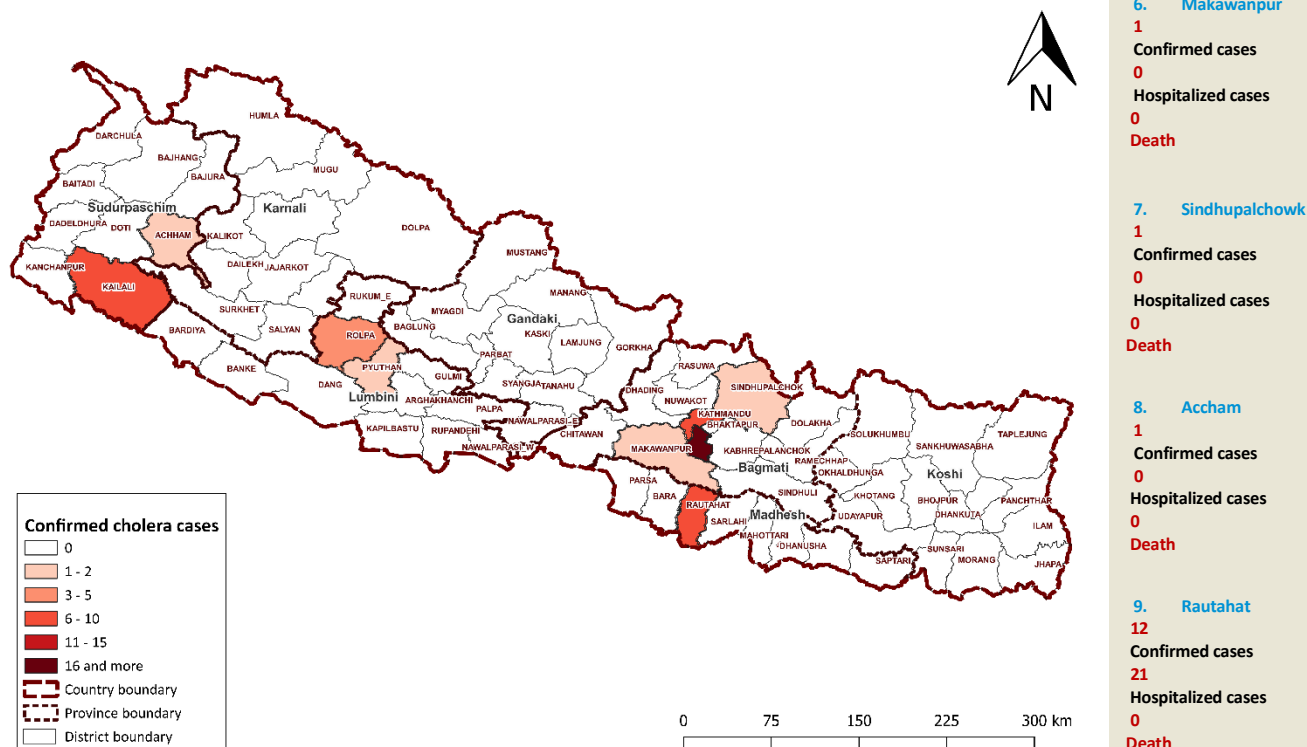
**Rautahat: 23 September 2024:** 12 culture confirmed cases of Cholera were reported from Rajpur Municipality, Rautahat, Madhesh Province. Active management, case finding and testing ongoing with support from Health Directorate, PPHL and Rautahat District. Linked with poor sanitation.

### IN NUMBER

As of 23 September 2024

- Lalitpur**  
54  
Confirmed cases  
0  
Hospitalized cases  
0  
Death
- Kathmandu**  
12  
Confirmed cases  
0  
Hospitalized cases  
0  
Death
- Kailali**  
8  
Confirmed cases  
0  
Hospitalized cases  
0  
Death
- Rolpa**  
4  
Confirmed cases  
0  
Hospitalized cases  
0  
Death
- Pyuthan**  
2  
Confirmed cases  
0  
Hospitalized cases  
0  
Death
- Makawanpur**  
1  
Confirmed cases  
0  
Hospitalized cases  
0  
Death
- Sindhupalchowk**  
1  
Confirmed cases  
0  
Hospitalized cases  
0  
Death
- Accham**  
1  
Confirmed cases  
0  
Hospitalized cases  
0  
Death
- Rautahat**  
12  
Confirmed cases  
21  
Hospitalized cases  
0  
Death

Figure 1: Reported Confirmed Cholera Cases as of 23 September 2024 (n=95)





## CONTEXT AND CHALLENGES

- In Nepal, Cholera has been endemic with numerous sporadic outbreaks in the past.
- Majority of the cases gets reported as large outbreak of Acute Watery Diarrhea (AWD) and sporadically gets reported through national EWARS system as Acute Gastroenteritis (AGE) or culture confirmed cases of Cholera.
- The country is at high risk for outbreaks due to a steady increase in urban population density accompanied by an inadequate supply of safe drinking water and pre-existing sanitation and sewage infrastructure concerns.
- **Contributing factors:**
  - Chlorine untreated community supply water used for drinking
  - Heavy rainfall and drainage overflow causing contamination of water sources
  - Lack of proper Food hygiene monitoring mechanism
  - Rapid in and out migration and rapid urbanization
  - Insufficient resources to conduct effective response activities in hot spots.



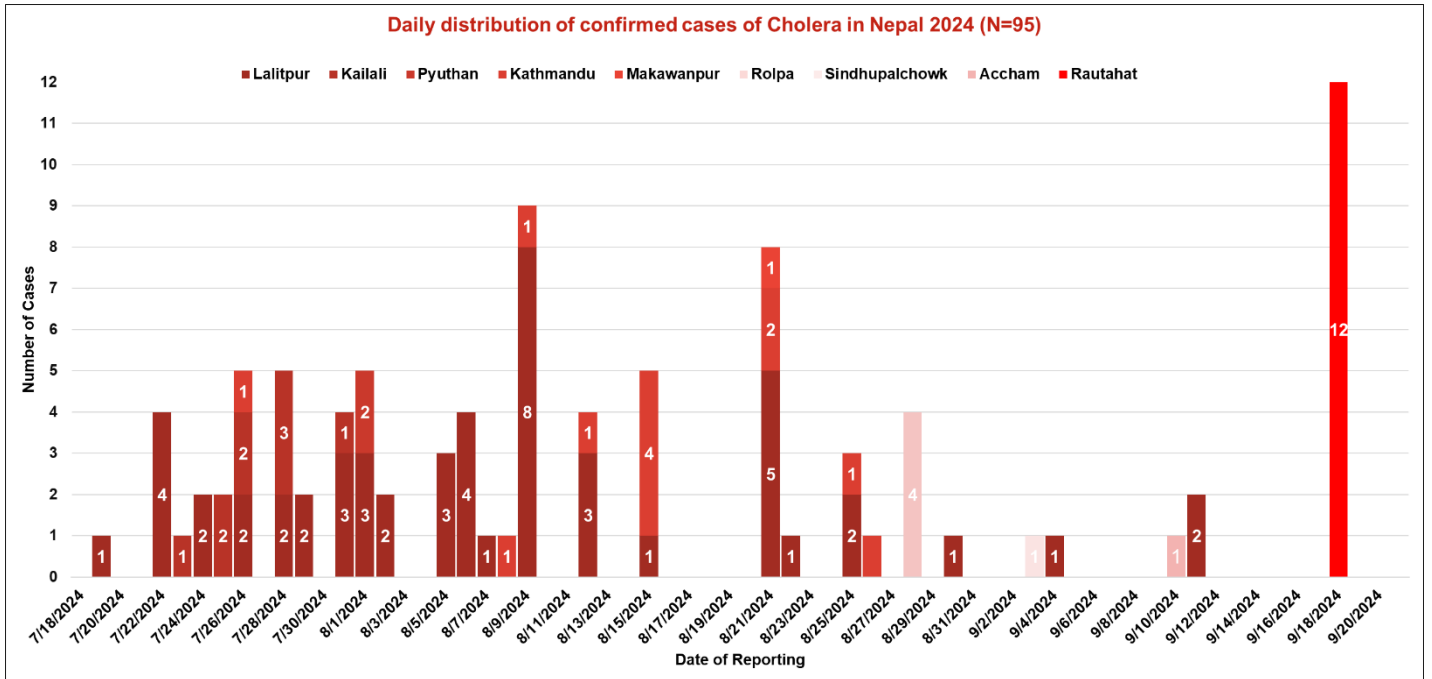
## EPIDEMIOLOGICAL UPDATE

- In Nepal, as of 23 September 2024, a total of 95 culture confirmed cases of cholera have been reported, of which all were screened by RDT as per the national RDT testing protocol. Nine separate foci have been reported. There are no epidemiological linkages between reported districts, however recent sporadic cases might have epi link in two districts of Kathmandu Valley.
- Cases continue to be confirmed by culture in reference laboratory of the country, indicating active circulation of *Vibrio cholerae* O:1 Ogawa and three cases of O:1 Hikojima in Lalitpur and one patient in Sindhupalchowk. Based on the achieved report, among 95 reported cases 50 are male, 45 are female and 17 are aged 14 years and younger, 3 years being the youngest (fig: 3).
- Majority of the cases reported some or severe signs of dehydration requiring hospital admission and antibiotic treatment.
- No deaths of cholera confirmed case have been reported (Case Fatality Rate - 0%) from reported districts.
- Cluster outbreak was reported in Lalitpur (n=10, 14.9%) from a drug rehab center (with 67 inhabitants) in Godawari Municipality, ward 14. All cases in rehab centers had common exposure. One caretaker in treating hospital was confirmed for cholera after 3 days of exposure Remaining sporadic cases are being notified from Lalitpur associated with flood water entering houses. There is continued transmission in Lalitpur requiring enhanced response. Lalitpur and Kathmandu Districts have been showing sustained transmission with sporadic cases
- Similarly, Kailali reported 8 confirmed cases (28.6%) from a same household with 6 families (28 member) residing on Dhangadhi-1, Tribeni Chowk. The epidemic was linked fecal contaminated stored drinking water likely to be contaminated from a carrier source. No new cases have been reported recently.
- Similarly, Pyuthan District reported 2 confirmed cases (20%) from a single family (10 member) in Gaumukhi Rural Municipality Ward-5, Lumbini Province. Two members have travel history to India in last seven days, however, not enough evidence on epi-linkage. No new cases have been reported from same foci however, 1 case was reported in a referred case from Butwal however preliminary investigation relates exposure in Kathmandu Valley.
- Lately, new case detected in Hetauda, Makawanpur referred to Patan Hospital. No case reported from Makawanpur
- Recently, on August 23, 2024, Rolpa hospital admitted 10 patients with AWD. Rapid diagnostic tests (RDTs) were performed on seven of these patients, five of whom tested positive. Samples from the positive cases were collected on August 24 and sent to PPHL, Lumbini for culture, with four testing positive for *Vibrio cholerae* on August 28. Three of these cases belonged to the same family from Rolpa-10, while one was from Rolpa-2. All patients have been treated and discharged, with no new cases reported. The affected families had no recent travel history or unusual food consumption, and it was noted that the community drinks

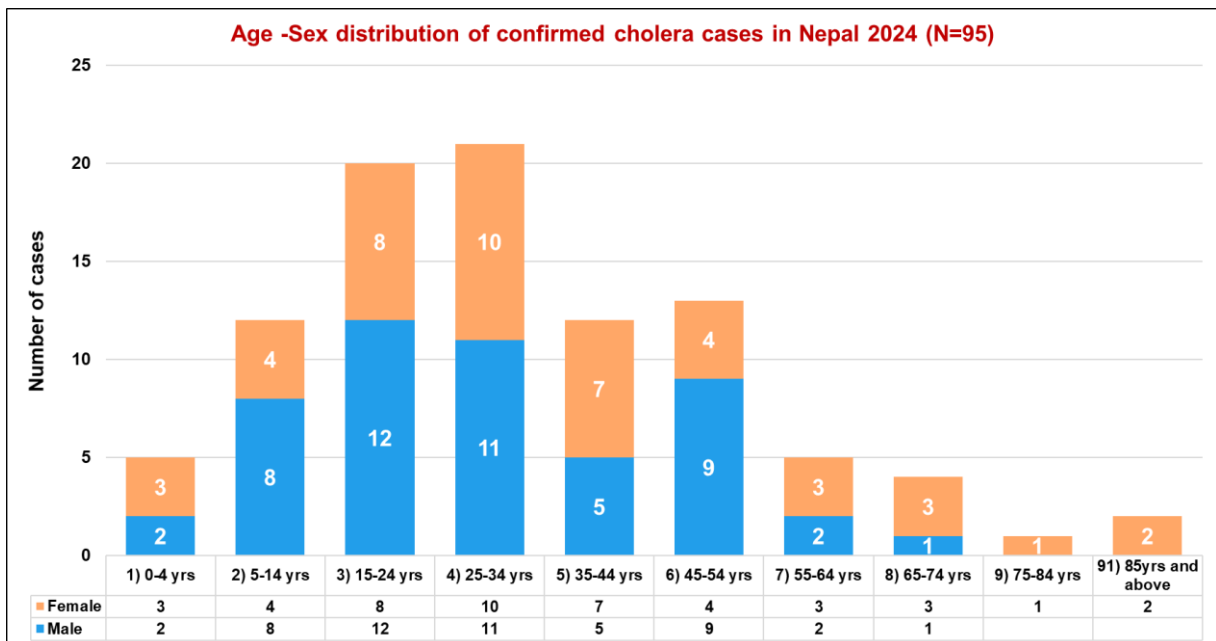
untreated water directly from the source.

- On 3 September 2024, one culture confirmed case was detected in a referred patient from Barabise of Sidhupalchowk. Active case search conducted. A case was detected in Accham as Non O1 and non 139 serotyping at Seti Hospital and NPHL.
- Recently, on 18 September 2024 cases with Acute Watery Diarrhea (AWD), clinically suspected as Cholera was notified with 6 RDT positives in Rajpur PHC, Rajpur municipality, Rautahat Districts. Out of 62 suspected cases admitted and reported, 41 cases have recovered. Remaining 18 cases were undergoing treatment in Rajpur PHC and 3 cases in provincial Hospital Gaur. Majority affected are from same community with poor WASH and sanitation. The outbreak is probably linked to contamination of sewage with community water supply. Broken supply lines were visible.
- In 2014, more than 1500 cases of acute watery diarrhea were reported with 14 culture confirmed cases in Rautahat. Oral Cholera Vaccines (OCVs) were administered in Rautahat district after a cholera confirmation.

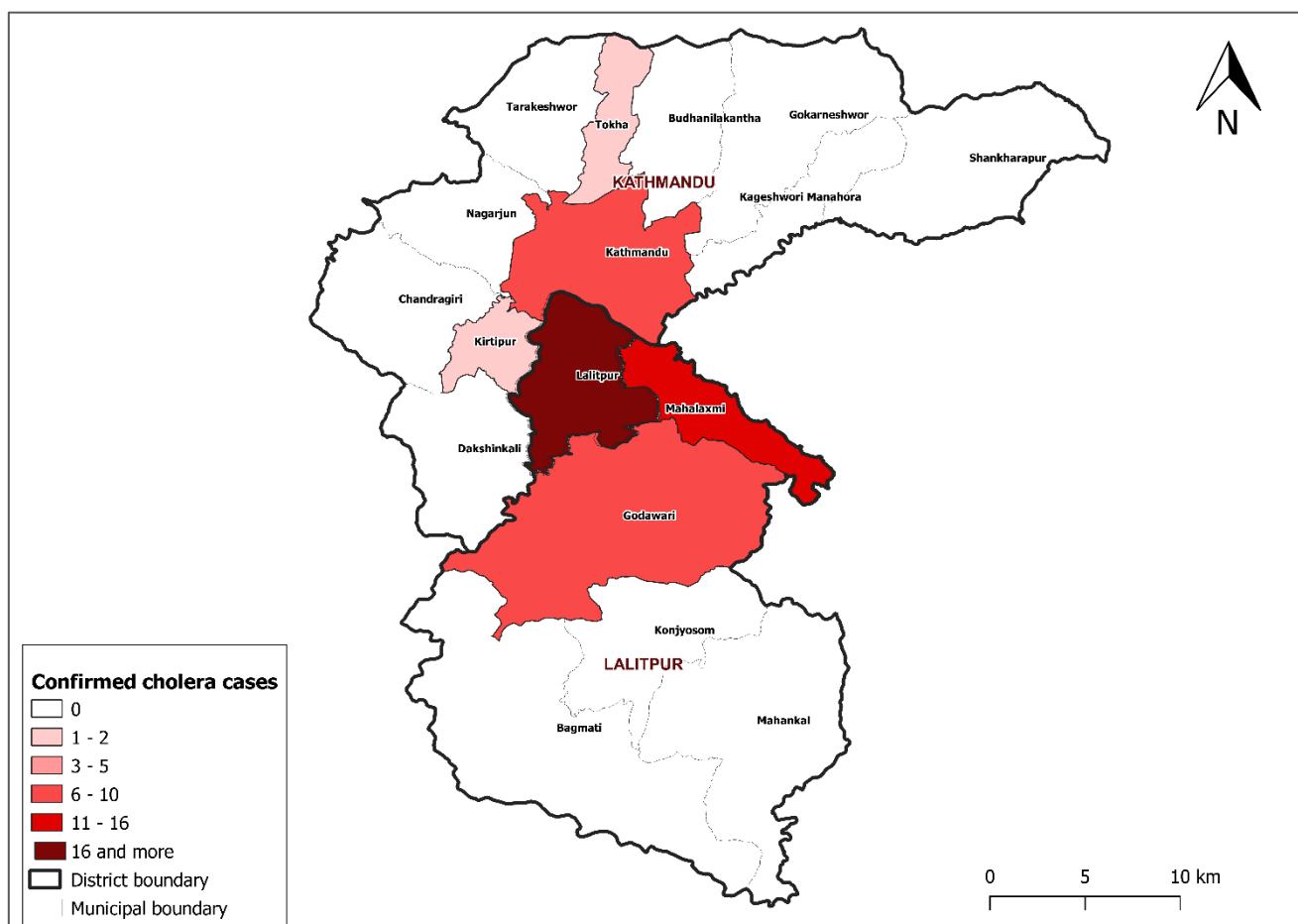
**Figure 2. Distribution of confirmed cases of cholera by districts in Nepal as of 23 September 2024**



**Figure 3. Distribution of suspected cases of cholera by Age - Sex in Nepal as of 23 September 2024**



**Figure 4. Reported Confirmed Cholera Cases in Kathmandu Valley as of 23 September 2024 (n=66)**



## RESPONSE

EDCD continues to support national health authorities and operational partners in provinces and districts in prioritizing the cholera response in affected districts. Overall responses as follows:

### Coordination and leadership

- Ongoing coordination with all three Provincial health Ministries, Provincial health directorates, PHEOCs, District Administrative Offices (DAO), Disaster Management Committees, provincial public health labs, National reference laboratory (NPHL) and health facilities daily for enhanced responses.
- Local municipalities coordinating with respective districts and Districts Administrative Offices (DAO) for effective response through meetings
- Coordination meeting is held to discuss and strategize the cholera response in affected districts, coordinated from PHEOCs.
- WASH cluster meetings involving all stakeholders to channelize responses at provincial and local municipality levels.
- Open communication and collaboration with all partners involved in the response including WHO, UNICEF and other local NGOs (eg, ENPHO Nepal, Red cross and Water Aid).
- Expert meeting to discuss on the current situation and seek expert advice and dissemination of recommendations
- Presentation of the disease's epidemiological situation at coordination meetings at EDCC, Provincial meetings and a WASH cluster meeting.
- EDCC and provinces coordinating with sentinel hospitals in affected districts for preparedness

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## Epidemiological and laboratory surveillance

- Health Directorate and affected district have mobilized the Rapid Response Teams (RRTs) from districts and local municipalities for active case finding and testing for laboratory confirmation of cases. Federal RRTs provided technical support in Kathmandu Valley.
- In addition, Health directorates continue to monitor and support the rapid investigation of cholera alerts and response activities including supporting alignment of trained Field Epidemiologists to support surveillance and alert investigation activities.
- Investigation and response were carried out with 100% of alerts were investigated within 48 hours by the RRT teams in Lalitpur and Kailali.
- Provincial PHEOCs coordinated the collection and transportation of samples to reference labs for initial confirmation. Also, coordinated testing of water samples from various sites for Fecal E. Coli detection as a proxy indicator to Vibrio Cholera. Logistics demands are being met in culture sites like
- Targeted Surveillance in few districts with Enhancing Cholera control (ECHO) Project In Nepal
- EDCD coordinating with sentinel sites and districts to meet the demand of Cholera RDTs (RDT based Cholera Surveillance SOP; <https://edcd.gov.np/resource-detail/sop-rdt-based-cholera-surveillance-2024>)
- Continued media monitoring from PHEOCs in affected provinces.
- Call center (1115) mechanism being used for active follow up of cases and signal detection for acute watery diarrhea
- Detailing of epidemiological and response data via event management systems
- Information compilation and coordination via PHEOCs

## Case management

- All health facilities (n=144) have been alerted by the provincial and district offices to prepare for case management and referral services.
- Logistic supplies like ORS, IV fluids and stock of doxycycline tablets have been assessed from nearby outbreak health facilities including Sukraraj Tropical and Infectious Disease Hospital (STIDH), Seti Hospital, Pyuthan District Hospital, and other nearby private hospitals.
- Seti Hospital, Pyuthan hospital, PAHS, KIST, STIDH have managed majority of the case. Cholera kits arranged for strategic placement
- An outreach clinic was established in Rolpa

## WASH

### Awareness activities:

- Dissemination of WASH and cholera-related messages through social media platforms such as Facebook and Instagram.
  - Orientation on cholera prevention and control for the ward elected members and the community disaster management committee of Kathmandu.
  - Orientation on WASH and cholera prevention and control for the youth at School in Kathmandu Metropolitan City.
  - Orientation on WASH and cholera prevention and control for youth club members, women's groups, and FCHVs.
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## Response activities:

### Godawari Municipality

- Demonstration of preparing 1% chlorine solution using bleaching powder and FRC test methods for the members of the Rehabilitation Center.
- Support of 5 liters of 1% chlorine solution to the members of the Rehabilitation Center at Godawari Municipality, Ward No. 14.
- Provided orientation on preparing a 1% chlorine solution using bleaching powder, mass chlorination, and FRC test methods to the water users and sanitation committees of Godawari Municipality. 60 people were trained.
- Provided Piyush Plus to Godawari Municipality, Ward No. 14, for distribution to the necessary households.

### Lalitpur Metropolitan City

- Completion of disinfection of Rehab center with drinking water and sanitation authorities testing levels of FRC (maintained at 0.2mg/l on 25 July)
- Orientation on hand hygiene and Point-of-Use (PoU) options provided to the community members in Lalitpur Metropolitan City, Ward No. 8.
- Water quality testing using P/A vials for three different water sources in the same area.
- School awareness and rallies being organized in ward 27 of Lalitpur in coordination with ENPHO. Booth to be set up with help of FCHVs, orientation ongoing
- Sites with mass gathering like Nagdah Festival gathering has been alerted and WASH awareness
- Miking and jingles have been carried out by Metropolitan police

### Mahalaxmi Municipality

- Mayor, ward offices, management committee oriented on Cholera, day after case identification
- Rallies have been organized in wards
- WASH clusters and health facilities have been re-sensitized
- Sensitization meeting held on with mayor, ward officials, WASH stakeholders, organized by Lalitpur district

### Dhangadhi Sub-metropolitan

- With coordination with Khane Pani Sansthan, distribution of PIYUS carried out in households
- FCHVs were deployed for health education and awareness in the community
- More WASH related items like PIYUSH and Chlorine tablets are being

### Gaumukhi Rural Municipality

- Awareness programs on drinking boiled water, water purification methods and hand washing conducted.
  - On 03 Aug, meeting called by the Health Directorate to all the health offices for preparedness and response alerting spread of cases.
  - Mapping of buffer stocks for WASH inventory at the district and local levels
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### **Kathmandu Metropolitan City**

- Active WASH activities being carried out in Ward 11, 12, 13 with support from ECHO Nepal.
- Information on recent cases have been shared to target WASH campaign

### **Rolpa Municipality**

- Local Rapid Response Team (RRT) was deployed, IEC materials were disseminated, miking was done to inform the community about drinking boiled water and water purification methods.
- The Ama Samuha group was mobilized
- The community's water tank was cleaned

### **Rajpur Municipality**

- WASH activities are being initiated with support from local municipality and UNICEF.
- Teams from municipality, district and PHEOC conducting field investigation
- EDCD coordinating for additional support, team mobilization and additional logistics requested to Management Division.
- Miking is ongoing with support from local security personnel

## **Risk communications and community engagement**

- Cholera awareness brochures were distributed by local RRTs and district Offices.
- 10,000 pieces WASH and Cholera materials, 10,000 Pcs of Aqua tabs distributed, and miking done with support from 31 volunteers from Nepal Red Cross Societies (NRCS)
- Public Service Announcement (PSA) have been developed and disseminated in coordination with National Health Information.
- Health Directorate in the provinces rolling out risk communication and community engagement activities by activating WASH cluster.
- Cholera awareness messages is being circulated via MOHP Viber group.
- Districts have mobilized FCHV for hygiene awareness
- Press briefing done by District Health Offices maintaining one door information sharing mechanism

## **Vaccination**

- Initiation on discussion on use of reactive vaccination campaign
- Nepal has conducted OCV campaigns in Saptari, Kapilvastu and Kathmandu Valley
- Since 2020, Ministry of Health and Population in collaboration with International Vaccine Institute's Enhancing Cholera control in Nepal (ECHO-N) with a specific objective to prevent and control cholera epidemics and strengthen capacities of local public health service to sustainably conduct cholera and diarrheal disease surveillance and control.  
(ref; <https://edcd.gov.np/resource-detail/cholera-outbreak-response-immunization-strategic-guideline>)

## **Supplies and Logistics**

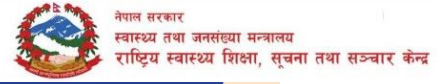
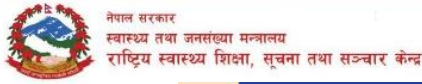
- EDCD continues to support the cholera response in Lalitpur, Kathmandu, Kailali, Pyuthan, Makwanpur and Rolpa districts in coordination with the management division (MD) and Provincial Health Logistic Management Committee (PHLMC).
- Cholera Kits have been placed for surge case management.



जर्मी तथा वर्षायामसँगै फैलने  
भाडा पखाला तथा हैजा जस्ता पानीजन्य रोगहरूबाट बच्न  
बासी सडेगलेका मिर्गा भन्केका खानेकुरा नखाऔं ।  
काँचे खान मिल्ने फलफूल तथा तरकारी शुद्धिकरण गरेको  
पानी प्रयोग गरी राम्ररी सफा गरेर मात्र खाऔं ।



जर्मी तथा वर्षायामसँगै फैलने  
भाडा पखाला तथा हैजा जस्ता पानीजन्य रोगहरूबाट बच्न  
खाना खानु/खुवाउनु अघि र चर्पी प्रयोग गरेपछि  
साबुन पानीले मिचिमिचि हात धुने  
जस्ता व्यक्तिगत सरसफाई अपनाऔं ।



## ईपिडिमियोलोजी तथा रोग नियन्त्रण महाशाखाको जरुरी सूचना



स्वास्थ्य सेवा प्रदान गर्ने (निजी तथा सरकारी) संस्थाहरूले  
कुनैपनि समुदायको एउटै वडा/टोल वा वस्तीबाट  
एक हप्ता भित्रमा ५ जना भन्दा बढि  
भाडा-पखालाका विरामीहरू देखा परेमा  
ईपिडिमियोलोजी तथा रोग नियन्त्रण महाशाखाको  
टोल फी नम्बर १११५ मा  
कल गरि जानकारी गराउनुहुन अनुरोध छ ।

