

## WEEKLY BULLETIN

# Communicable Disease Threats Report

Week 19, 5–11 May 2024

## This week's topics

1. Cholera – Comoros and Mayotte – 2024 – weekly monitoring
2. Western equine encephalitis – Multi-country – 2023

## Executive Summary

### **Cholera – Comoros and Mayotte – 2024 – weekly monitoring**

- Since the last available update on 1 May and as of 6 May, health authorities reported 23 new cholera cases. Since the first case detected on 18 March and as of 6 May, 58 cholera cases and no deaths have been reported in Mayotte.
- Given the identification of several autochthonous cases in Mayotte, the ongoing outbreak in Comoros, and the frequent movement of people from Comoros to Mayotte, the likelihood of further community transmission – and therefore the overall risk of cholera for the population in Mayotte – remains high.
- In Comoros, since the last available update on 2 May and as of 7 May, 790 new cholera cases and 13 new deaths have been reported. As of 7 May 2024, 4 901 confirmed cholera cases and 98 deaths have been reported in the country.

### **Western equine encephalitis – Multi-country – 2023**

- Since the previous report on 12 March and as of 2 May 2024, 65 new Western equine encephalitis (WEE) human cases (confirmed, probable, and suspected) have been reported in the Americas.
- Since 28 November 2023 and as of 2 May 2024, a total of 268 WEE human cases (confirmed, probable, and suspected) have been reported in the Americas, including 109 confirmed cases in Argentina (105) and Uruguay (5). A total of 11 deaths have been reported in Argentina.
- WEE is a mosquito-borne disease caused by the WEE virus. Birds are the main reservoir, while equines and humans are dead-end hosts. Outbreaks in equines have been reported in Argentina and Uruguay.
- The risk for the EU/EEA is very low because humans and horses are dead-end hosts, there is no direct migration of birds from South America to Europe, and conditions in Europe are currently unfavourable for vector-borne transmission.

# 1. Cholera – Comoros and Mayotte – 2024 – weekly monitoring

## Overview:

### Update

Since the previous update on 1 May and as of 6 May, [French health authorities](#) reported 23 new cholera cases.

Since 18 March and as of 6 May, 58 cholera cases have been reported in Mayotte. So far, no deaths have been reported on the island. In all, 52 cases have recovered. According to the ARS Mayotte's [bulletin](#), a total of 380 contacts of the cases have received antibiotic chemoprophylaxis and 4 058 contacts have been vaccinated.

Further information on the case definition and close contacts is available on the [Prefect of Mayotte](#) website.

Since the last update on 2 April and as of 2 May, [Comoros health authorities](#) have reported 790 new cholera cases and 13 new deaths. Since the outbreak was declared on 2 February in the Union of the Comoros, a total of 4 901 cases and 98 deaths have been reported on the three islands. In all, 4 613 cases have recovered.

### Summary

On 31 January 2024, a boat from Tanzania carrying 25 people [arrived in Moroni](#), the capital of the Comoros archipelago. One person on board died of suspected cholera and several others were symptomatic. The Comoros Ministry of Health [declared](#) a cholera outbreak on 2 February. The first locally transmitted cases in Comoros were reported on 5 February in Moroni. Cholera cases were also detected in Moheli and Anjouan by the end of February and the first week of March.

Following the increase in cholera cases in Comoros during February, the Mayotte Regional Health Agency (ARS Mayotte) [announced](#) that health surveillance capacities would be strengthened on the island, including risk communication for health professionals and passengers. The first [imported cholera](#) case was detected in Mayotte on 18 March.

### Background

There is frequent undocumented population movement between the Comoros archipelago and the French territory of Mayotte. No cholera cases had been reported in Mayotte since 2000.

Cholera is a bacterial disease caused by the bacterium *Vibrio cholerae*. The main risk factors are associated with poor water, sanitation and hygiene practices. Several countries in eastern and southern Africa are currently responding to cholera outbreaks. Response efforts are constrained by global shortages of cholera vaccines.

### ECDC assessment:

Considering the detection of several autochthonous cases of cholera in Mayotte, ECDC assesses the likelihood of further community transmission of cholera in Mayotte as high. The impact of the cholera outbreak in Mayotte is considered to be high. The overall risk of cholera for the population in Mayotte is therefore assessed to be high.

Early detection and response activities are essential and have been reinforced in the French territory of Mayotte, as well as increasing awareness among healthcare workers and at points of entry.

### Actions:

ECDC is in contact with French authorities and relevant partners and is monitoring the situation through its epidemic intelligence activities.

**Last time this event was included in the Weekly CDTR: 3 May 2024**

## 2. Western equine encephalitis – Multi-country – 2023

### Overview:

#### Update

Since the previous report on 12 March and as of 2 May 2024, 65 new Western equine encephalitis (WEE) human cases have been reported in the Americas from Argentina (64) and Uruguay (1). This brings the cumulative total of WEE cases to 268, including 11 deaths and 109 confirmed cases from Argentina (104) and Uruguay (5) since the start of the outbreak in 28 November 2023.

#### Argentina

Human cases showed a decreasing trend in Argentina since epidemiological week 3, which is consistent with the absence of WEE equine cases reported in the last months. No additional confirmed human cases have been reported in the country since epidemiological week 13. However, a few suspected cases still continue to be reported.

Since 28 November 2023 and as of 2 May 2024, a total of 263 WEE human cases (confirmed, probable, and suspected) have been reported in Argentina. Among these, 104 were confirmed cases reported in Buenos Aires (62), Santa Fe (20), Córdoba (10), Entre Ríos (6), CABA - Buenos Aires Autonomous City (2), Río Negro (2), Santiago del Estero (1), and La Pampa (1) provinces. In addition, 11 deaths have been reported in Buenos Aires (6), Santa Fe (2), Córdoba (1), Entre Ríos (1), and Río Negro (1). Most of the human cases are reported in the Central region of Argentina, where the highest number of outbreaks among equines have been notified.

#### Uruguay

Since the previous update, Uruguay has reported a new human WEE confirmed case.

No additional WEE cases have been reported among equines in Uruguay in the last 12 weeks, and Uruguayan health authorities consider the event as closed.

Since 30 January 2024, Uruguay reported a total of five human WEE confirmed cases in San Jose (3), Maldonado (1), and Montevideo (1). No deaths associated with WEE have been reported in Uruguay.

### Summary

In November 2023, Argentina reported an outbreak of WEE among equines. The outbreak affected north-eastern regions of Argentina, sharing borders with other American countries, and lately expanded to the central regions. The outbreak of WEE among equines peaked on epidemiological week 49, 2023, and sharply decreased until epidemiological week 8, 2024, when cases were close to zero.

Epidemiological surveillance of WEE in humans in Argentina was initiated on 28 November 2023, after the initial alert at the national level due to an unusual increase in human WEE detections. Since then, reporting of human WEE cases increased in Argentina until the highest number of cases was reported on epidemiological week 3, 2024. Subsequently, reporting of human WEE cases started to decrease. The majority of human cases were detected among people exposed to areas where WEE cases were reported in equines.

Uruguay reported a similar epidemiological pattern as Argentina, where an outbreak of WEE among equines – peaking on epidemiological week 49, 2023 – was followed by human WEE detections in late December 2023. Sporadic human cases continued to be reported in 2024.

### Background

WEE is a mosquito-borne disease caused by the Western equine encephalitis virus (WEEV; genus *Alphavirus*, family *Togaviridae*). The main reservoir for WEEV is birds, while humans and equines are dead-end hosts. Human WEE cases have been reported in the past in Argentina, in 1983 and 1996. Up to 18 January 2024, 47 and 1 171 outbreaks in equines have been reported to WAHIS in Uruguay and Argentina, respectively. Prior to this event, the last outbreaks in equines were reported in Mexico in 2019, after which the situation was resolved. The most recent human case was in Uruguay in 2009.

Detailed laboratory guidelines for the detection of WEEV infection in humans were [published](#) by WHO PAHO on 20 December 2023. The European Union reference laboratories for equine diseases provide a Standard Operating Procedure for the detection of WEE in equine animals ([WOAH, accessed on 23/01/2024](#)), and the requirements for diagnostics techniques and vaccines for WEE are described in Chapter 3.6.5 [of the World Organisation for Animal Health \(WOAH\) diagnostic manual](#).

### ECDC assessment:

WEE epidemics involving thousands of cases used to be widespread in the Americas in the 1940s, from Canada to Argentina. Since then, case numbers have decreased, with no human cases since 2009. There is no clear explanation for the decline that has been observed in the last decade. More specifically, lack of evidence for a decline in virulence of WEEV has been reported, but ecological factors have been hypothesised to play a role ([Forrester et al., 2008](#)). Serological studies provide only patchy evidence of potential virus circulation in South America. For instance, there is some serological evidence of WEEV circulation in horses in 2007, both in Central-West Brazil ([Pauvolid-Correa et al, 2010](#)) and Uruguay ([Burgueno et al., 2018](#)). A study in Argentina, carried out from 2013 to 2016, did not identify any serological evidence of WEEV circulation in horses ([Albrieu-Llinas et al., 2021](#)). Other studies investigating seroprevalence in 182 humans in S. Paulo State in 2000 delivered negative test results ([Romano Lieber et al, 2000](#)), as was the case for 298 young men tested in 2021 in the Amazonas State in Brazil ([Salgado et al, 2021](#)). In addition, studies carried out in Trinidad did not find any serological evidence of virus circulation in humans ([Thompson et al., 2012](#)).

There is not much information yet about the current prevalence of WEEV in mosquitoes and wild birds, but knowing that equines and humans (which are dead-end hosts) are being affected, it can be assumed that it is circulating among mosquitoes and wild birds. Therefore, to reduce the potential exposure to humans, personal protective measures against mosquito bites should be applied in affected areas. These include the use of repellents, protective clothing, door and window screens, and mosquito nets.

The risk for the EU/EEA is very low because humans and horses are dead-end hosts and there is no direct migration of birds from South America to Europe.

### Actions:

ECDC will continue monitoring the event through epidemic intelligence activities and will report again if there is any significant change in the epidemiological situation.

### Further information:

- [Equine encephalomyelitis \(Western\) - WOA - World Organisation for Animal Health](#)
- [Epidemiological alert - Risk to human health associated with Western Equine Encephalitis Virus infection in Equines - 19 December 2023 - PAHO/WHO | Pan American Health Organization](#)
- [Ministerio de Salud Argentina - Encefalitis Equina del Oeste: Circular para la vigilancia epidemiológica y laboratorial, la prevención y el control \(08/12/2023\)](#)

**Last time this event was included in the Weekly CDTR:** 22 March 2024