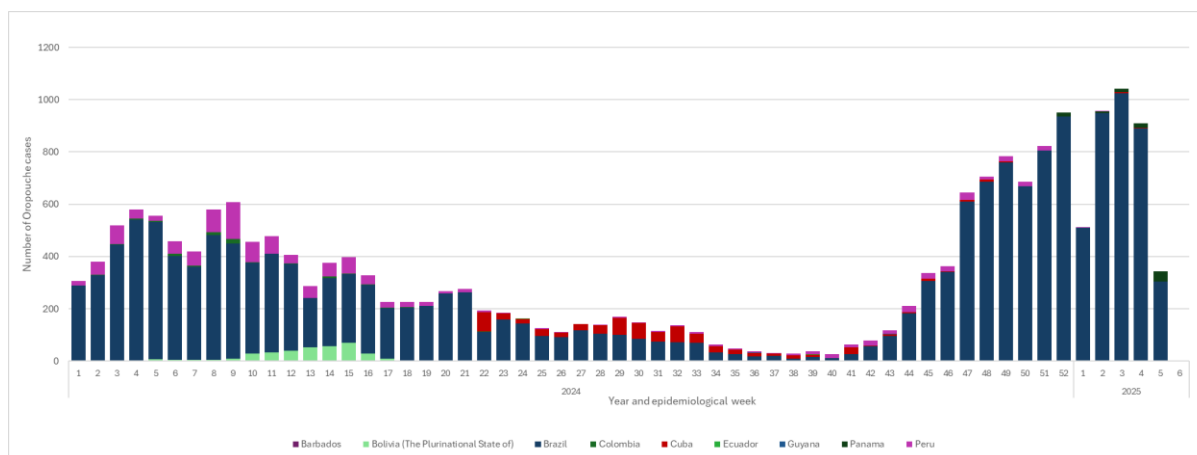


Summary of the situation

During 2024, 16,239 confirmed cases of Oropouche, including four deaths, were reported in the Americas Region. Confirmed cases were reported in eleven countries and one territory in the Americas Region: Barbados (n= 2 cases), the Plurinational State of Bolivia (n= 356 cases), Brazil (n=13,785 cases, including four deaths), Canada (n= 2 imported cases), the Cayman Islands (n= 1 imported case), Colombia (n= 74 cases), Cuba (n= 626 cases), Ecuador (n= 3 cases), Guyana (n= 3 cases), Panama (n= 16 cases), Peru (n= 1,263 cases), and the United States of America (n= 108 imported cases) (**Figure 1**) (1-18). Additionally, imported cases of Oropouche were reported in countries of the European Region (n= 30 cases) (19-22).

In 2025, between epidemiological week (EW) 1 and EW 4, there were 3,765 confirmed Oropouche cases reported the Americas Region. Confirmed cases were reported in six countries in the Americas Region: Brazil¹ (n= 3,678 cases), Canada (n= 1 imported case), Cuba (n= 4 cases), Guyana (n= 1 case), Panama² (n= 79 cases), and Peru (n= 2 cases) (**Figure 1**) (4, 5, 8, 12, 14-16).

Figure 1. Number of confirmed autochthonous Oropouche cases by country and epidemiological week (EW) of symptom onset, Americas Region, 2024 -2025*



***Note:** Information is up to EW 4 of 2025 for most countries; information for Brazil is up to EW 5 of 2025 and information for Panama is up to EW 6 of 2025.

Source: Adapted from data provided by the respective countries and reproduced by PAHO/WHO (1-8, 10-16).

Since the Pan American Health Organization / World Health Organization (PAHO/WHO) Oropouche Epidemiological Update published on 13 December 2024 (23), 6,990 additional

¹ The information from Brazil includes cases up to EW 5 of 2025

² The information from Panama includes cases up to EW 6 of 2025.

Suggested citation: Pan American Health Organization / World Health Organization. Oropouche Epidemiological Update in the Americas Region, 11 February 2025. Washington, D.C.: PAHO/WHO; 2025

Oropouche cases were reported in seven countries in the Region: Brazil (n= 6,523 cases), Canada (n= 1 imported case), Cuba (n= 27 cases), Guyana (n= 2 cases), Panama (n= 94 cases), Peru (n= 1 case), and the United States (n= 14 imported cases) (1-18).

With regard to the investigation of cases of vertical transmission of Oropouche virus infection (OROV) and its consequences, in 2024 in Brazil, there were five confirmed cases of vertical transmission (four fetal deaths and one case of congenital anomaly) and further investigation of 22 fetal deaths, five miscarriages, and four cases of congenital anomaly (4-7).

The following is a summary of the situation in countries that have reported confirmed cases of Oropouche in the Americas Region between 2024 and 2025.

Summary of confirmed autochthonous cases of Oropouche in the Americas Region

In **Barbados**, in EW 47 of 2024, two laboratory-confirmed cases of Oropouche were reported. The cases correspond to one male and one female, aged 42 and 32 years, respectively, with no travel history. The cases presented symptoms on 3 October and 26 October 2024, respectively (1). Both are resident of Barbados, with the first case being a resident of Saint Lucy and the second a resident of Saint Thomas. The specimens were confirmed positive for OROV by RT-PCR testing on 3 December by the Barbados Public Health Laboratory. Neither case required hospitalization and both recovered fully. No confirmed cases of Oropouche have been reported in Barbados in 2025 (1).

In **Bolivia**, between EW 1 and EW 52 of 2024, 356 laboratory-confirmed cases of Oropouche have been reported³ using the molecular biology technique (RT-PCR) (2, 3). Transmission has been reported in three departments: La Paz with 75.3% of cases (n= 268), followed by Beni with 21.3% of cases (n= 76), and Pando with 3.4% of cases (n= 12) (2, 3). Cases are reported in 16 municipalities, which are considered endemic for this disease, with the highest proportion of cases reported in the municipalities of Irupana, La Paz, with 33% of cases, followed by La Asunta, La Paz, with 13% of cases, and Chulumani, La Paz, and Guayaramerín, Beni, with 12% each (2, 3)

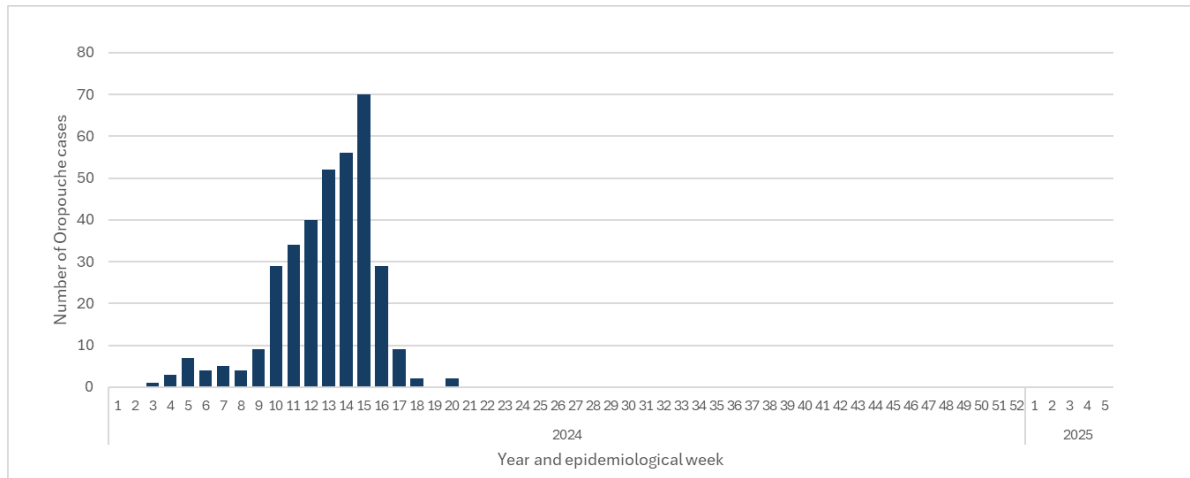
Fifty percent of the cases (n= 179) were female, and the highest proportion was found in the 30-39 years age group with 20% (n= 70) of cases. No deaths that could be associated with OROV infection have been reported (2, 3). In addition, between EW 12 and EW 15 of 2024, ten cases of coinfection of Oropouche with dengue were reported in three municipalities in the department of La Paz, which presented positive results for dengue (RT-PCR) with typing of dengue virus DENV-1 (n= 2 cases) and DENV-2 (n= 8 cases) (2, 3).

With regard to the trend of confirmed cases of Oropouche by epidemiological week, there was an upward trend observed between EW 10 and EW 15 of 2024, when the highest number of cases (n= 70) was reported. Subsequently, a downward trend was observed up to EW 18, and in EW 20, few cases were identified, after which no new cases of Oropouche have been

³ The Plurinational State of Bolivia applies the following definition of suspected and confirmed cases. A *suspected case of Oropouche*: Any person who resides in or has visited in the last 14 days areas of transmission or with a history of Oropouche outbreak and who presents at least one or more of the following signs and symptoms: fever greater than or equal to 38°C, intense headache, chills, arthralgias, lack of appetite, myalgias, photophobia, dizziness, lumbar pain, difficulty walking. A *confirmed case of Oropouche*: Any suspected case of Oropouche with a positive result for OROV in a real-time RT-PCR laboratory test (3).

recorded in Bolivia (**Figure 2**) (2, 3). During 2025, no confirmed cases of Oropouche have been reported in Bolivia (2, 3).

Figure 2. Number of confirmed cases of Oropouche by epidemiological week (EW) of symptom onset, Bolivia, 2024 and 2025 (as of EW 4)



Source: Adapted from data provided by the Ministerio de Salud y Deportes Bolivia - Programa Nacional de Vigilancia de Enfermedades Endémicas y Epidémicas – Componente Arbovirosis. Unidad de Vigilancia Epidemiológica y Salud Ambiental. La Paz; 2025. Unpublished (2, 3).

In **Brazil**, during 2024 and as of EW 52, 13,785 laboratory-confirmed cases of Oropouche were reported⁴ in 22 of the country's 27 states, including four deaths (4-6). The Amazon region, considered endemic for Oropouche, concentrated 42% of the cases reported in the country with all seven states reporting cases: Amazonas (n= 3,231), Rondônia (n= 1,711), Acre (n= 273), Roraima (n= 278), Pará (n= 172), Amapá (n= 128), and Tocantins (n= 8) (4-7).

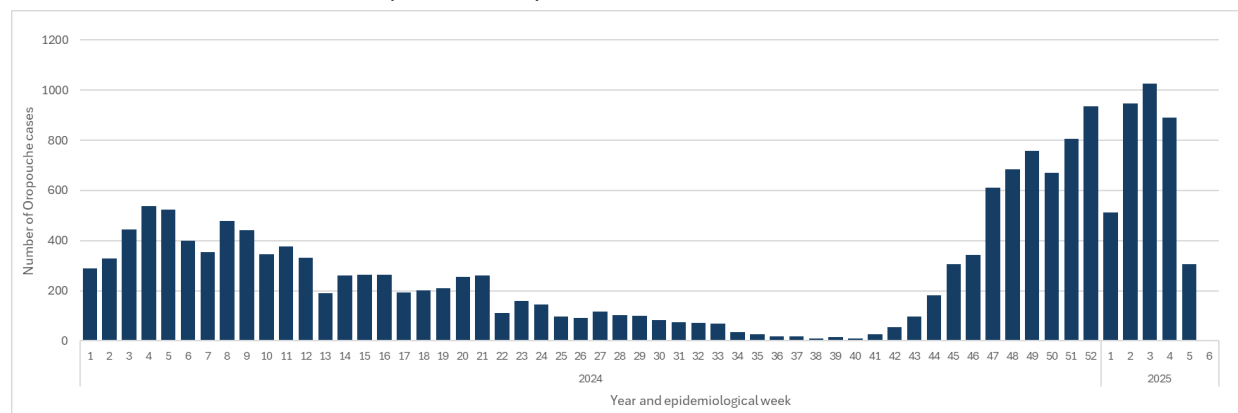
Additionally, autochthonous transmission was documented in 15 non-Amazonian states: Espírito Santo (n= 5,864), Bahia (n= 891), Ceará (n= 257), Minas Gerais (n= 246), Santa Catarina (n= 178), Pernambuco (n= 146), Rio de Janeiro (n= 151), Alagoas (n= 120), Sergipe (n= 34), Maranhão (n= 33), Piauí (n= 30), Mato Grosso (n= 18), São Paulo (n= 9), Paraíba (n= 6), and Mato Grosso do Sul (n= 1). Regarding the distribution of cases by sex and age group, 52.5% (n= 7,241) corresponded were male and the highest proportion of cases was recorded in the 30-39 age group with 20% (n= 2,742) of the reported cases (4-7).

In 2025, between EW 1 and EW 5, there were 3,678 laboratory-confirmed cases of Oropouche reported in three of the country's 27 states. Cases have been reported in the states of Espírito Santo (n= 3,463), Rio de Janeiro (n= 167), and Minas Gerais (n= 33) (4-7). Regarding the distribution of cases by sex and age group, 53.1% (n= 1,955) corresponded were male and the highest proportion of cases was recorded in the 30-39 age group with 18.7% (n=689) of the reported cases (4-7).

⁴ Brazil applies the following confirmed case definition. A *confirmed case of Oropouche*: any case with laboratory diagnosis of OROV infection. Laboratory diagnosis of OROV infection, preferably by direct testing (molecular biology or viral isolation), and whose clinical and epidemiological aspects (i.e., exposure in an endemic region or with an outbreak/epidemic or exposure to risk situations in peri-urban, forest, rural, or wild areas) are compatible with the occurrence of the disease. Serological detections (IgM ELISA) should be carefully evaluated, especially in areas with isolated detections and high incidence and prevalence of other arboviruses (4).

With regard to the trend of Oropouche cases by EW in Brazil, a high proportion of cases was recorded during the first two months of 2024, with a peak in EW 4, with 538 cases, subsequently registering a gradual decrease that was maintained until EW 40, highlighting that between weeks EW 43 of 2024 and EW 5 of 2025 an increase in the number of Oropouche cases is observed, presenting the highest number of cases in EW 3 of 2025, with 1,025 cases, these cases have been registered mainly in the state of Espírito Santo (**Figure 3**) (4-7).

Figure 3. Number of confirmed cases of Oropouche by epidemiological week of symptom onset, Brazil, 2024 and 2025 (as of EW 5).



Source: Adapted from data provided by Brazil International Health Regulations (IHR) National Focal Point (NFP). Communication received on 5 February 2025 via e-mail. Brasília; 2025. Unpublished (4).

Regarding deaths associated with Oropouche in 2024, the Brazil International Health Regulations (IHR) National Focal Point (NFP) reported four deaths associated with OROV infection in the states of Bahia⁵ (n= 2 cases), Paraná³ (n= 1 case), and Espírito Santo (n= 1 case); and four cases under investigation, one in Espírito Santo, one in Acre, one in Alagoas, and one in Mato Grosso (4-7, 24-27)

Additionally, on 12 August 2024, Brazil reported a case of OROV-associated encephalitis in a male resident of the state of Piauí⁶ (4, 26).

With regard to cases of vertical transmission and its consequences⁷ as of EW 52 of 2024, five cases of vertical transmission have been confirmed: four cases of fetal death in Pernambuco (n=3) and Ceará (n=1) and one case of congenital anomaly in Acre. As for cases under investigation in the country, 22 cases of fetal death were identified in Pernambuco (n= 21) and Espírito Santo (n=1); and four cases of congenital anomaly in Acre (n= 2), Bahia (n= 1), and Espírito Santo (n=1). Additionally, five abortions were reported in Pernambuco (n= 5) (4, 26). During 2025, no cases of vertical transmission and its consequences have been reported as of EW 5 (4-7).

⁵ Detailed information on these cases is available in the PAHO/WHO Oropouche Epidemiological Alert in the Americas Region of 1 August 2024 (25).

⁶ Detailed information on this case is available in the PAHO/WHO Oropouche Epidemiological Update in the Americas Region of 6 September 2024 (26).

⁷ Detailed information on previously reported cases is available in the PAHO/WHO Epidemiological Alert on Oropouche in the Americas Region: Vertical transmission event under investigation in Brazil published 17 July 2024 (27).

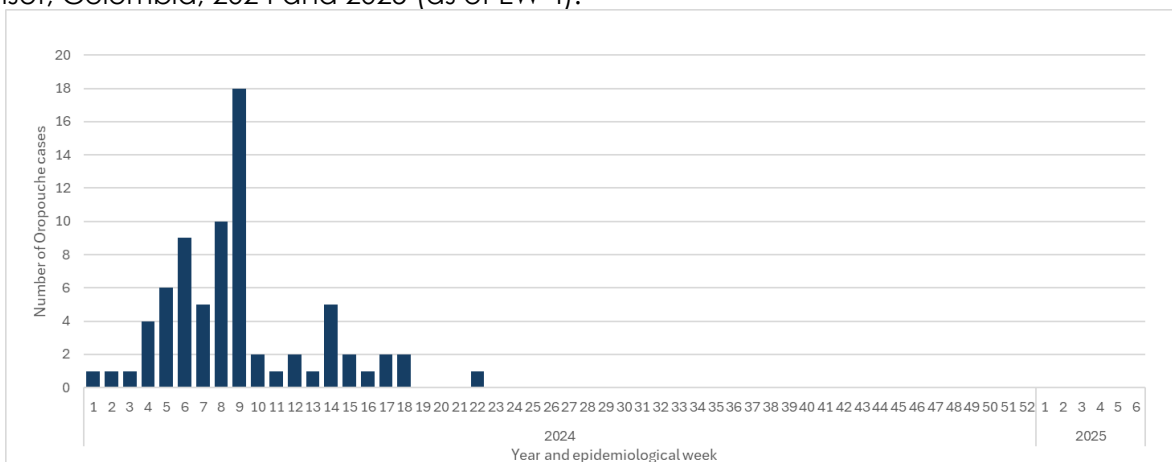
In **Colombia**, between EW 1 and EW 52 of 2024, 74 confirmed cases of Oropouche⁸ have been reported in three departments of the country: Amazonas (n= 70), Caquetá (n= 1), and Meta (n= 1), in addition to the identification of two cases from Tabatinga, Brazil. The cases were identified through a retrospective laboratory search strategy implemented by the National Institute of Health of Colombia (INS per its acronym in Spanish) based on dengue surveillance (n= 38) and investigation of febrile syndromes (n= 36). With regard to the distribution of cases by sex and age group, 51.4% (n= 38) were female cases and the highest proportion of cases was recorded in the 10-19 age group with 36.5% (n= 27) of cases. No deaths that could be associated with OROV infection have been reported (10, 11).

In 2024, six cases of coinfection with dengue were recorded: in the department of Amazonas, four in the municipality of Leticia (two with DENV-1 and two with DENV-2) and one in the municipality of Puerto Nariño (DENV-3); and in the department of Meta, one in the municipality of Guamal (DENV-4) (10, 11).

With regard to the surveillance of cases of vertical transmission and its consequences as of 3 October 2024, two cases of Oropouche were identified in pregnant women, both from the municipality of Leticia, aged 18 years (onset of symptoms at 29 weeks of gestation) and 22 years (onset of symptoms at 34 weeks of gestation). Both evolved favorably and their children were born without complications. To date, none of the infants show evidence of congenital anomalies, neurological syndromes, or neurodevelopmental disorders (10, 11).

With regard to the trend of Oropouche cases by EW of symptom onset, the number of cases increased starting in EW 4 of 2024, reaching the highest number in EW 9 with 18 cases; 57% of the cases occurred between EW 6 and EW 9. The last case detected corresponds to EW 22. Subsequent to this, no new cases have been confirmed by the retrospective surveillance strategy of the National Reference Laboratory or through investigation reports (**Figure 4**) (10, 11).

Figure 4. Number of confirmed cases of Oropouche by epidemiological week of symptom onset, Colombia, 2024 and 2025 (as of EW 4).



Source: Adapted from data provided by the Colombia International Health Regulations (IHR) National Focal Point (NFP). Communication received on 6 February 2025 via e-mail. Bogotá; 2025. Unpublished (10, 11)

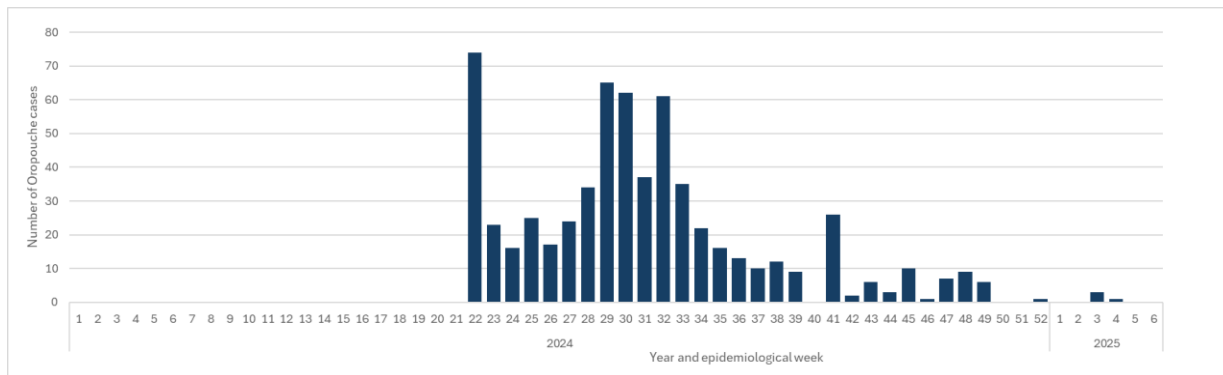
⁸ Colombia applies the following confirmed case definition. A *confirmed case of Oropouche*: Patient with acute febrile illness of 2 to 7 days of evolution accompanied by any of the following manifestations: headache, retro-ocular pain, myalgias, arthralgias, rash, exanthema, with positive PCR for OROV (10).

In **Cuba** during 2024, there were 626 confirmed cases⁹ of Oropouche reported. Cases were identified through surveillance for non-specific febrile syndrome, with cases recorded in 109 municipalities in the 15 provinces of the country (12). The provinces of Havana (n= 176), Santiago de Cuba (n= 75), Pinar del Rio (n= 49), Cienfuegos (n= 40), Matanzas (n= 38), and Villa Clara (n= 38) accounted for 55% of the confirmed cases. Regarding the distribution of confirmed cases by sex and age group, 55% (n= 343) corresponded to females and the highest proportion of cases was recorded in the 19-54 age group with 53% (n= 332) of cases. In 2024, Cuba reported a total of 119 cases with neurological manifestations associated with OROV: Guillain-Barré syndrome (GBS) (n=78 cases), encephalitis (n= 26 cases), and meningoencephalitis (n= 15 cases) (12).

In 2025, between EW 1 and EW 4, four confirmed cases of Oropouche have been reported in in the provinces of: Pinar del Rio (n= 1), Cienfuegos (n= 1), Villa Clara (n= 1), and Ciego de Avila (n= 1). As for the distribution of these cases by sex and age group, 50% (n= 2) correspond to female cases and the highest proportion of cases is registered in the 19-54 age group with 75% (n= 3) of the cases (12).

Regarding the trend of Oropouche cases by epidemiological week of symptom onset, it is observed that after the detection of cases in EW 22 of 2024, the highest number of cases was recorded between EW 29 and EW 32 (n= 225 cases) and then a decrease that was maintained until EW 41 where a slight increase was recorded followed by a marked decrease, keeping the number of cases at low levels during the last epidemiological weeks of 2024 and beginning of 2025. (**Figure 5**) (12).

Figure 5. Number of confirmed cases of Oropouche by epidemiological week of symptom onset, Cuba 2024 and 2025 (as of EW 4).



Source: Adapted from data provided by the Cuba International Health Regulations (IHR) National Focal Point (NFP). Communication received on 6 February 2025 via e-mail. Havana; 2025. Unpublished (12).

In **Ecuador**, as of EW 52 of 2024, three laboratory-confirmed cases of Oropouche were reported, which were detected based on retrospective analysis of dengue-negative samples by the National Institute of Public Health Research (INSPI per its acronym in Spanish) (13). The

⁹ Cuba applies the following definition of suspected and confirmed case. A *suspected case of Oropouche*: Any case presenting fever of 38 or more and headache with one or more of the following symptoms: myalgias, arthralgias, chills, lumbalgia, photophobia, with resolution of the symptoms in two to four days, negative laboratory report of IgM for dengue, with a history of having been in an endemic area or where an unusual increase of SFI has been recorded. A *confirmed case of Oropouche*: Any case with laboratory diagnosis of OROV infection (11).

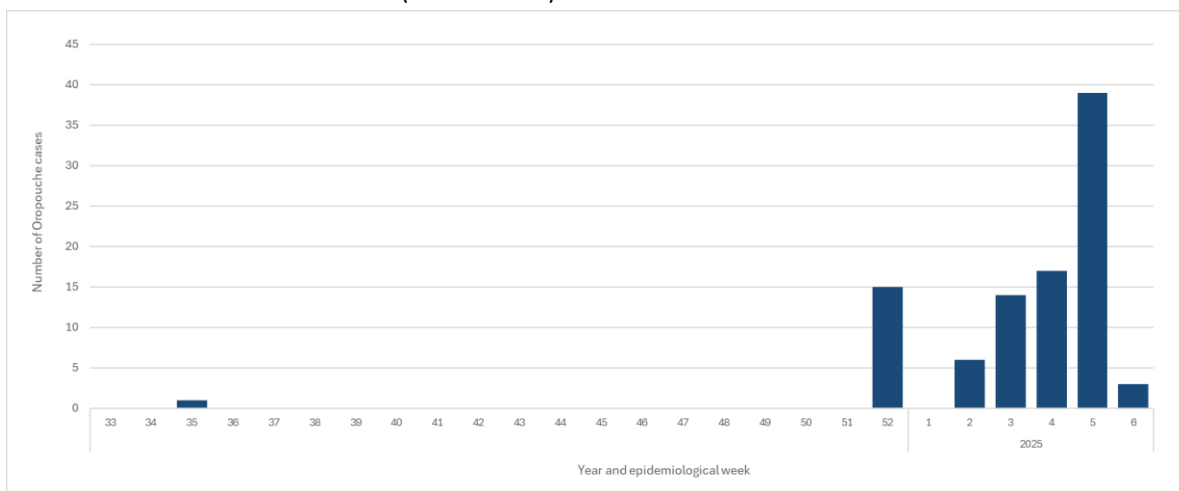
cases correspond to two males aged 45 and 62 years and a female aged 36 years, with no history of travel. The cases presented symptoms on 5 January, 11 June, and 17 July 2024. The first case involves a resident of Thasisha Canton in Morona Santiago Province, the second case is from Caluma Canton in Bolívar Province, and the third case involves a resident of Urdaneta Canton in Los Ríos Province. None of the cases required hospitalization and they have fully recovered. No confirmed cases of Oropouche have been reported in Ecuador during 2025 (13).

In **Guyana** during 2024, three laboratory-confirmed cases of Oropouche were reported between EW 36 and 43. The cases were two females aged 47 and 42 years and a minor aged 11 years with no history of travel and onset of symptoms between 21 August and 9 October 2024 (14). All cases had resided in the same geographical area in region N° 5 (Mahaica-Berbice), near the Atlantic Ocean, for at least 14 days prior to onset of symptoms. The cases were confirmed by the National Public Health Reference Laboratory (NPHRL) by RT-PCR testing (14).

In 2025, in EW 2, one case was confirmed in Guyana in a 15-year-old female resident of Region No. 5 with no history of travel and onset of symptoms on 2 January 2025; this case was confirmed by the NPHRL by RT-PCR testing and did not require hospitalization (14).

In **Panama**, on 15 November 2024, the first confirmed case of Oropouche virus disease was reported from the province of Coclé. In EW 52 of 2024, 15 cases were reported, and as of EW 6 of 2025 (Figure 6), the number of confirmed cases rose to 94, all from the province of Darien (15). The tests were performed and confirmed by the laboratory of the Gorgas Memorial Institute of Health Studies (ICGES per its acronym in Spanish). Regarding the distribution by sex and age group for the cases reported between 2024 and 2025, 54% (n= 51 cases) corresponded females, while the highest proportion of cases 71% (n= 67 cases) were recorded in persons aged between 19 and 59 years. Of the 94 confirmed cases, 89% (n= 84 cases) were concentrated in three districts of Darien province: Pinogana (n= 65 cases), Santa Fe (n= 17 cases), and Chepigana (n= 2 cases) (15).

Figure 6. Number of confirmed cases of Oropouche by epidemiological week of symptom onset, Panama, 2024 and 2025 (as of EW 6).



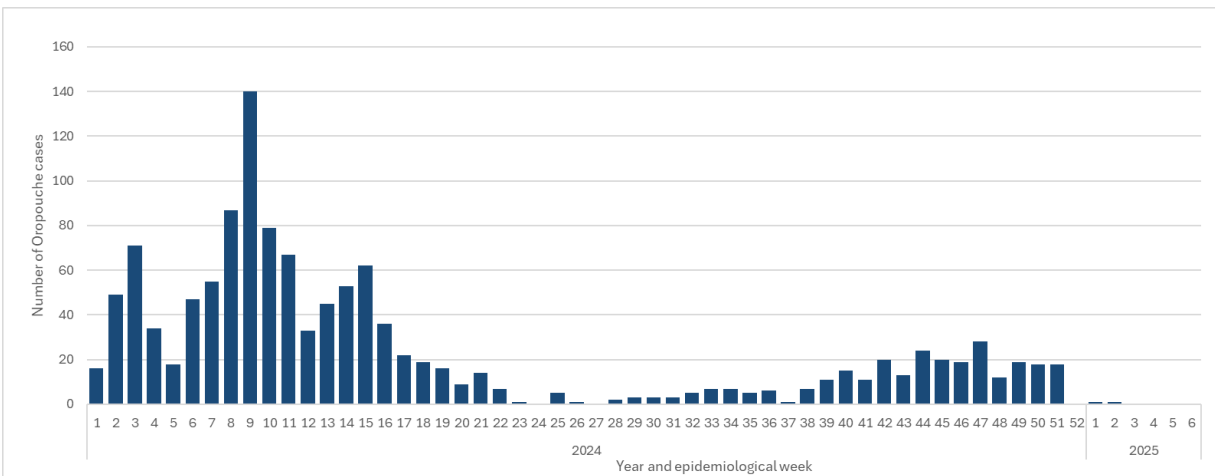
Source: Adapted from data provided by the Panama International Health Regulations (IHR) National Focal Point (NFP). Communication received 5 February 2025 via e-mail. Panama City; 2025. Unpublished (15).

In **Peru**, between EW 1 and EW 52 of 2024, 1,263 confirmed cases of Oropouche¹⁰ have been reported in nine departments of the country. The departments where confirmed cases were reported are: Loreto (n= 729), Madre de Dios (n= 313), Ucayali (n= 139), Huánuco (n= 40), Junín (n= 21), San Martín (n= 18), Tumbes (n= 1), Cusco (n= 1), and Puno (n= 1) (16). Regarding the distribution of cases by sex and age group, 53% (n= 675) were female, with the highest proportion of cases in the 30-39 age group with 36% (n= 458) of cases. No deaths have been reported that could be associated with OROV infection. There are no reports of possible vertical transmission of OROV (16).

In 2025, between EW 1 and EW 4 of 2025, two laboratory-confirmed cases of Oropouche have been reported from the department of Loreto in Peru (16).

With regard to the trend of Oropouche cases by EW, Oropouche cases peaked during EW 9, with 140 cases, and subsequently showed a progressive decrease in the number of cases (Figure 7) (16).

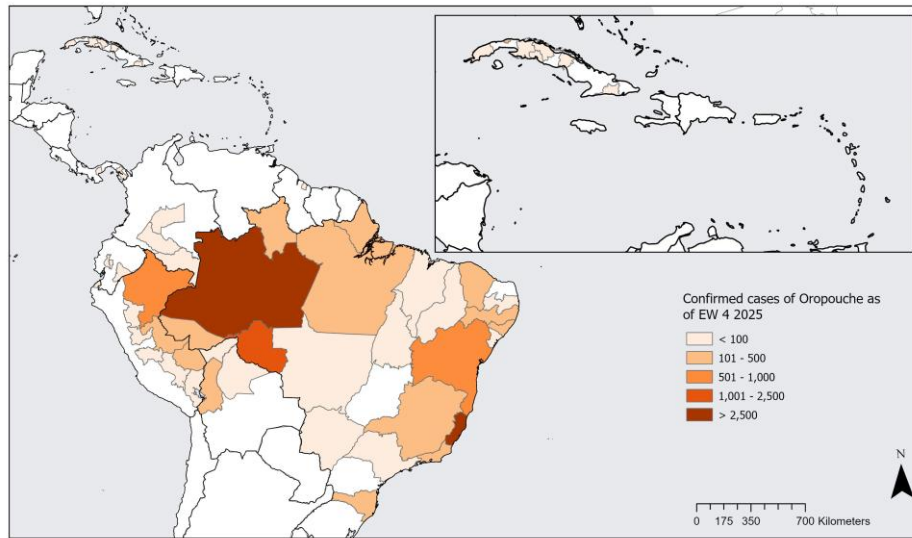
Figure 7. Number of confirmed cases of Oropouche by epidemiological week of symptom onset, Peru, 2024 and 2025 (as of EW 4).



Source: Adapted from Oropouche data provided by the Peru International Health Regulations (IHR) National Focal Point (NFP). Email information dated 5 February 2025. Lima; 2025. Unpublished (16).

¹⁰ Given the PAHO/WHO Oropouche Epidemiological Alert in the Americas Region published by PAHO/WHO on 1 August 2024. As an epidemiological surveillance strategy, the Peruvian Ministry of Health has conducted an active search for Oropouche through differential diagnosis of dengue cases with negative results during the year (16).

Figure 8. Geographic distribution of cumulative confirmed cases* of autochthonous transmission of Oropouche in the Americas Region, 2024-2025*

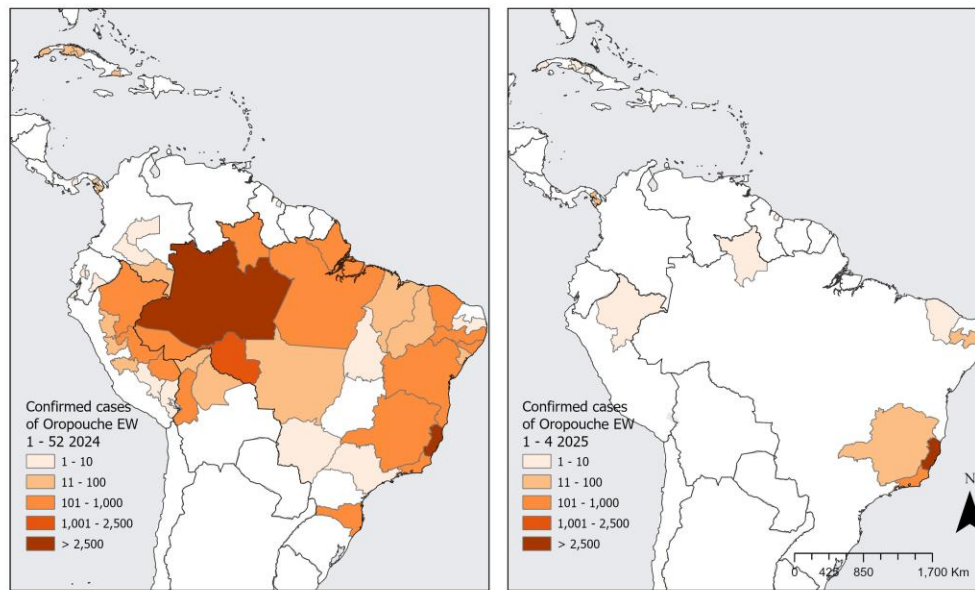


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 Map production: PAHO Health Emergencies Department, Health Emergency Information and Risk Assessment Unit, GIS Team.

***Note:** Information for Brazil is up to EW 5 of 2025 and information for Panama is up to EW 6 of 2025.

Source: Adapted from data provided by the respective countries and reproduced by PAHO/WHO (1-8, 10-16).

Figure 9. Geographic distribution of autochthonously transmitted cases* Oropouche in the Americas Region, 2024 and 2025*



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***Note:** Information for Brazil is up to EW 5 of 2025 and information for Panama is up to EW 6 of 2025.

Source: Adapted from data provided by the respective countries and reproduced by PAHO/WHO (1-8, 10-16).

Imported cases in countries and territories in the Americas Region

In 2024 and 2025 (as of EW 4), in the Americas Region, the situation in countries and territories that have reported only imported cases of Oropouche is provided below.

Canada has reported three confirmed imported cases of Oropouche, two cases in 2024 and one in 2025, with a history of travel to Cuba (n= 2) and Colombia (n= 1) (8).

In the **Cayman Islands**, in 2024, an imported case of Oropouche virus was reported in an adult woman from the Cayman Islands who had traveled to Cuba; the case was confirmed by the Caribbean Public Health Agency (CARPHA) on 16 September 2024. The case developed symptoms on 10 August, after her return, including fever and muscle ache. Initial testing for Oropouche virus in the Cayman Islands on 12 August was positive and then confirmed at CARPHA's reference laboratory from a specimen collected on 15 August (9).

In the **United States** during 2024 as of EW 52, 108 imported cases of Oropouche were reported in the states of Florida (n= 103), California (n= 1), Colorado (n= 1), Kentucky (n= 1), New Jersey (n= 1) and New York (n= 1) (17-18). The median age of the cases was 52 years (range = 6 to 94 years) and 45% were female. Two of the cases had presented with neuroinvasive disease and 17% of cases were hospitalized. All cases had a history of travel to Cuba. In 2025, as of EW 4 no imported cases have been reported (17, 18).

Imported cases in countries outside the Americas Region

Between EW 23 and EW 39 of 2024, there were 30 imported cases of Oropouche identified in three countries of the WHO European Region: Germany (n= 3), Spain (n= 21), and Italy (n= 6); 20 of these cases had a history of travel to Cuba and one to Brazil (19-22).

Guidance to Member States

PAHO/WHO reiterates to Member States the recommendations on diagnosis and clinical management, laboratory diagnosis, prevention and vector control of Oropouche virus disease, as well as specific recommendations related to cases of vertical infection, congenital malformation or fetal death associated with OROV infection.

The current outbreak highlights the need to strengthen epidemiological and entomological surveillance measures, as well as to reinforce preventive measures aimed at the population.

In order to contribute to the generation of knowledge about this disease, Member States are requested to report all unusual events related to this disease, including deaths associated with OROV infection, as well as cases of possible vertical transmission and its consequences (28).

Epidemiological Surveillance

PAHO/WHO encourages continued epidemiological surveillance in the context of the circulation of other arboviruses (dengue, chikungunya, and Zika), taking into account the differences in clinical presentation (29).

According to the epidemiological situation of each country, surveillance should be oriented to:

- Detect the introduction of the Oropouche virus in an area.
- Monitor the spread of the Oropouche virus once introduced.
- Maintain an up-to-date characterization of the epidemiological situation of Oropouche.

PAHO/WHO recommends Member States carry out case detection applying the following case definitions for Oropouche proposed by PAHO/WHO (30):

Case definitions for Oropouche:

Suspected case: person presenting with acute fever onset (or history of fever) of up to 5 days of evolution associated with severe headache and presenting two or more of the following manifestations:

- Myalgia or arthralgia
- Chills
- Photophobia
- Dizziness
- Retroocular pain
- Nausea, vomiting, or diarrhea (diarrhea is defined as three or more episodes in 24 hours and change in stool consistency).
- Any manifestation of the nervous system (diplopia, paresthesia, meningitis, encephalitis, meningoencephalitis).

Suspected case in pregnant women: any pregnant woman with acute onset fever (or history of fever of up to 5 days duration) associated with severe headache.

Probable case: any suspected case that also presents at least one of the following criteria:

- Having lived in or traveled to an area of confirmed Oropouche transmission.
- Having an epidemiological link with a confirmed case of Oropouche.
- Having a positive IgM ELISA test for Oropouche.

Confirmed case: any suspected case that also presents at least one of the following criteria:

- A positive result for the detection of OROV, viral RNA (RT-PCR) or viral antigens.
- Exhibits antibody seroconversion or an increase in antibody titer of at least 4-fold in paired samples taken more than 7-10 days apart (and a convalescent sample taken more than 14 days after onset of symptoms).
- Post-mortem determination of viral RNA by RT-PCR or demonstration of antibodies or antigens by immunohistochemical or other available tests in deceased patients with suspected OROV infection.
- In cases of patients with suspected OROV encephalitis, a positive IgM test result in cerebrospinal fluid (CSF) is considered positive.

Laboratory tests should be performed on suspected cases that meet the Oropouche case definition, once OROV circulation has been identified. PAHO/WHO recommends that 10% of cases be sampled according to the resource capacity of each country (29).

Given the clinical similarity of dengue and Oropouche cases, Oropouche confirmatory testing should be performed in those cases that test negative for dengue, mainly in those localities where there is a low positivity of laboratory results for dengue (29).

Early detection of the Oropouche virus will allow the characterization of the epidemiological situation and the implementation of control actions.

In **countries with autochthonous cases of Oropouche**, it is recommended to:

- Monitor the spread of the Oropouche virus to detect introduction into new areas.
- Carry out the epidemiological characterization in time, place, and person of the cases of Oropouche.
- Perform the clinical characterization of Oropouche cases.
- Intensify surveillance of patients with neurological and congenital complications in areas with OROV circulation (31).
- Maintain continuous surveillance to monitor epidemiological and entomological changes.

Detection and clinical management

Oropouche fever has an incubation period of 4 to 8 days, after which patients present high fever, intense headache (generally located in the nape of the neck), myalgias, arthralgias, extreme weakness (prostration) and, in some cases, photophobia, dizziness, persistent nausea or vomiting, and lumbago. Fever usually lasts up to 5 days. In some patients, symptoms may include vomiting, diarrhea and bleeding, manifesting as petechiae, epistaxis and gingival bleeding. The infection usually resolves within 2 to 3 weeks (32).

In rare situations, OROV can cause meningitis or encephalitis. In these cases, patients show neurological symptoms and signs such as vertigo, lethargy, nystagmus and nuchal rigidity. The virus can be detected in cerebrospinal fluid (CSF) (32).

The treatment approach is symptomatic, focused on relieving pain and fever, hydrating or rehydrating the patient and controlling vomiting. In situations where the disease manifests itself in a neuroinvasive form, the patient will need to be admitted to specialized units that allow constant monitoring. Currently, there are no vaccines or specific antiviral drugs available to prevent or treat OROV infection (32).

During the first week of illness, the main differential diagnosis to consider is dengue infection. In the second week of illness, the clinical differential diagnosis should consider the possibility of meningitis and encephalitis (31). It is reported that up to 60% of cases present relapses of symptoms in the weeks following recovery (32).

Laboratory diagnostics and surveillance

Guidance on laboratory diagnosis and surveillance of emerging arboviruses, including OROV, is detailed in the **Guidelines for the detection and surveillance of emerging arboviruses in the context of the circulation of other arbovirus** and in the **Recommendations for the detection and surveillance of Oropouche in possible cases of vertical infection, congenital malformation or fetal death** (29, 33).

Entomological surveillance, prevention and vector control

OROV is transmitted to humans through the bite of the midge *Culicoides paraensis*, which is considered the main vector of this disease and whose presence is widely distributed in the Americas Region. Other vectors, such as the *Culex quinquefasciatus* mosquito, can transmit OROV, but are considered of secondary importance (34).

The proximity of vector breeding sites to human dwellings represents a significant risk factor for OROV infection. Vector control strategies focus on reducing vector populations by identifying and eliminating breeding and resting sites. Measures implemented include: (35-37):

- Strengthening entomological surveillance in areas at risk of OROV transmission, for the detection of species with vectorial capacity. The guidelines for the identification of the main *Culicoides* species are detailed in the operative document available in Portuguese from: <https://iris.paho.org/handle/10665.2/64274> (38).
- Mapping urban, peri-urban, and rural areas with conditions for the development of potential vectors.
- Promoting good agricultural practices to avoid the accumulation of residues that serve as vector breeding and resting sites.
- Filling or draining of water collections, ponds, or temporary waterlogging sites that may serve as oviposition sites for females and vector larvae breeding sites.
- Eliminating weeds around premises to reduce vector resting and shelter sites.

Additional information on vector control measures can be found in the document "**Interim guidelines for entomological surveillance and prevention measures for Oropouche virus vectors**" (39).

In addition, measures should be taken to prevent vector bites, which should be reinforced in the case of pregnant women. These measures, which are also useful for preventing other arboviruses, include (35, 36):

- Protection of homes with fine mesh screens on doors and windows.¹¹
- Use of clothing that covers the legs and arms, especially in homes where a sick person is present.

¹¹ It is recommended that the mesh holes be smaller than 1.0 mm because the average size of the female *Culicoides paraensis*, considered to be the main vector involved in OROV transmission, is 1 to 1.5 mm.

- Use of repellents containing DEET, IR3535 or icaridin, which may be applied to exposed skin or clothing, and their use must be in strict accordance with product label instructions.
- Use of insecticide-impregnated or non-insecticide-treated mosquito nets for daytime sleepers (e.g., pregnant women, infants, sick or bedridden people, the elderly).
- In outbreak situations, outdoor activities should be avoided during the period of peak vector activity (dawn and dusk).
- In the case of people with a higher risk of being bitten, such as forestry workers, agricultural workers, etc. The use of clothing that covers the exposed parts of the body is recommended, as well as the use of the previously mentioned repellents.

Finally, taking into account the ecological characteristics of the main vectors of OROV, it is important to consider that the decision to carry out vector control activities with insecticides depends on entomological surveillance data and the variables that may condition an increase in the risk of transmission. In areas of transmission, insecticide spraying may be an additional measure, especially in urban and peri-urban areas, when technically advisable and feasible.

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