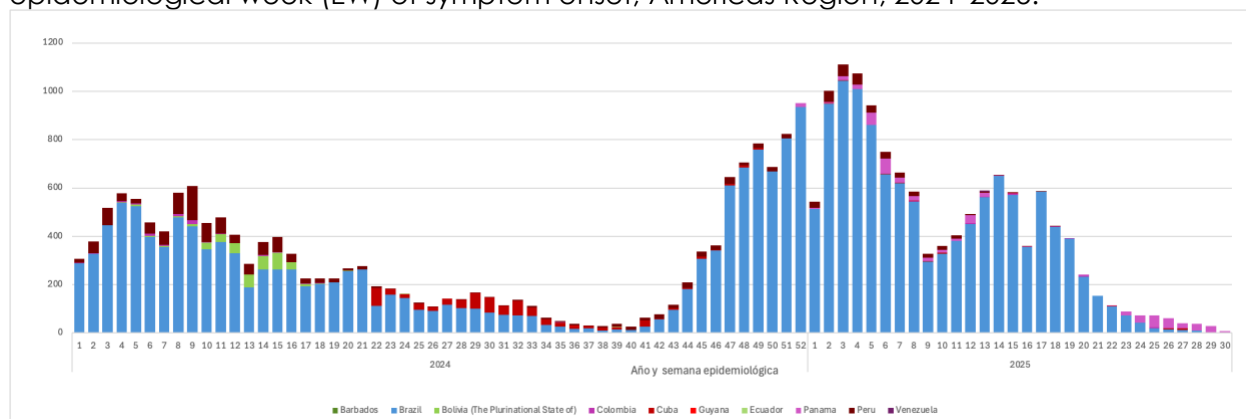


### Summary of the situation

In 2025, between epidemiological week (EW) 1 and EW 30, 12,786 confirmed cases of Oropouche were reported in the Americas Region. Confirmed cases were reported in eleven countries in the Americas Region: Brazil (n= 11,888 cases), Canada (n= 1 imported case), Chile (n= 2 imported cases), Colombia (n= 26 cases), Cuba (n= 28 cases), the United States of America (n= 1 imported case), Guyana (n= 1 case), Panama (n= 501 cases), Peru (n= 330 cases), Uruguay (n= 3 imported cases), and Venezuela (Bolivarian Republic of)<sup>1</sup> (n= 5 cases) (**Figure 1**) (1-15).

Previously, during 2024, 16,239 confirmed cases of Oropouche had been reported, including four deaths in the Americas Region. Confirmed cases were reported in 11 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), Colombia (n= 74 cases), Cuba (n= 626 cases), Ecuador (n= 3 cases), the United States of America (n= 108 imported cases), Guyana (n= 3 cases), the Cayman Islands (n= 1 imported case), Panama (n= 16 cases), and Peru (n= 1,263 cases) (**Figure 1**). In addition, imported cases of Oropouche were reported in countries in the European Region (n= 30 cases) (16).

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



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

Since the Pan American Health Organization/World Health Organization (PAHO/WHO) Epidemiological Update on Oropouche published on 11 February 2025, an additional 9,014 confirmed cases of Oropouche have been reported, and five additional countries in the Region have reported confirmed cases (Chile, Colombia, The United States of America, Uruguay, and Venezuela) (1-16).

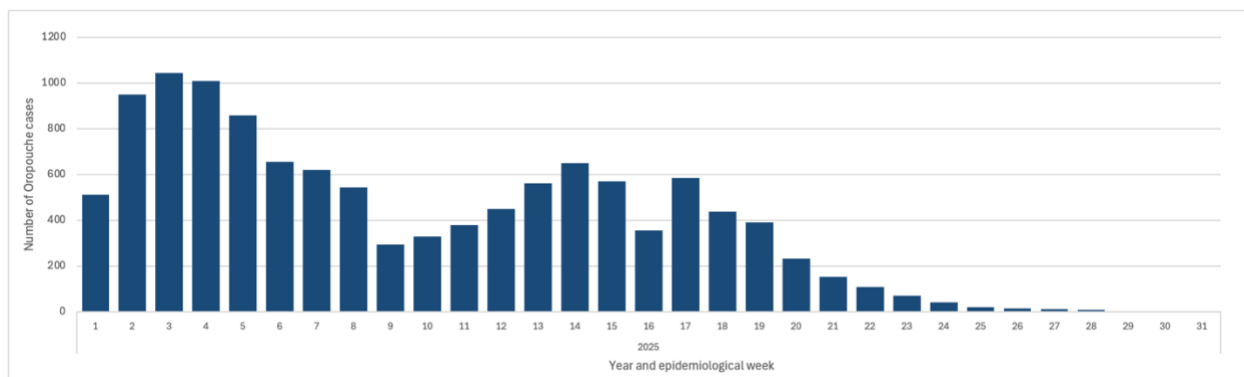
<sup>1</sup> The information for Venezuela is current as of WEEK 13 of 2025.

## Summary of confirmed autochthonous cases of Oropouche in the Americas Region in 2025

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

In **Brazil**, between EW 1 and EW 31 of 2025, 11,888 laboratory-confirmed cases of Oropouche virus infection (OROV) have been reported (**Figure 2**). Cases have been reported in the states of Alagoas (n= 5), Amapá (n= 99), Bahia (n= 11), Ceará (n= 693), Federal District (n= 1), Espírito Santo (n= 6,322), Minas Gerais (n= 1,366), Mato Grosso do Sul (n= 1), Pará (n= 10), Paraíba (n= 645), Pernambuco (n= 2), Piauí (n= 1), Paraná (n= 47), Rio de Janeiro (n= 2,497), Rondônia (n= 7), Roraima (n= 1), Santa Catarina (n= 15), São Paulo (n= 143) and Tocantins (n= 22). The cases identified in Pará, Maranhão, Piauí, Pernambuco, Mato Grosso, Goiás, the Federal District, and Rio Grande do Sul had probable sites of infection in states with autochthonous transmission (Espírito Santo, Rio de Janeiro, and Paraíba). Regarding deaths associated with Oropouche in 2025, five deaths associated with OROV infection were reported in the states of Espírito Santo (n= 1) and Rio de Janeiro (n= 4). Regarding the distribution of cases by sex and age group, 52.4% (n= 6,231) were male, and the highest proportion of cases was recorded in the 30-39 age group, with 19.1% (n= 2,267) of reported cases. Five cases with neurological complications and two cases of fetal death (1 - 3) are still under investigation.

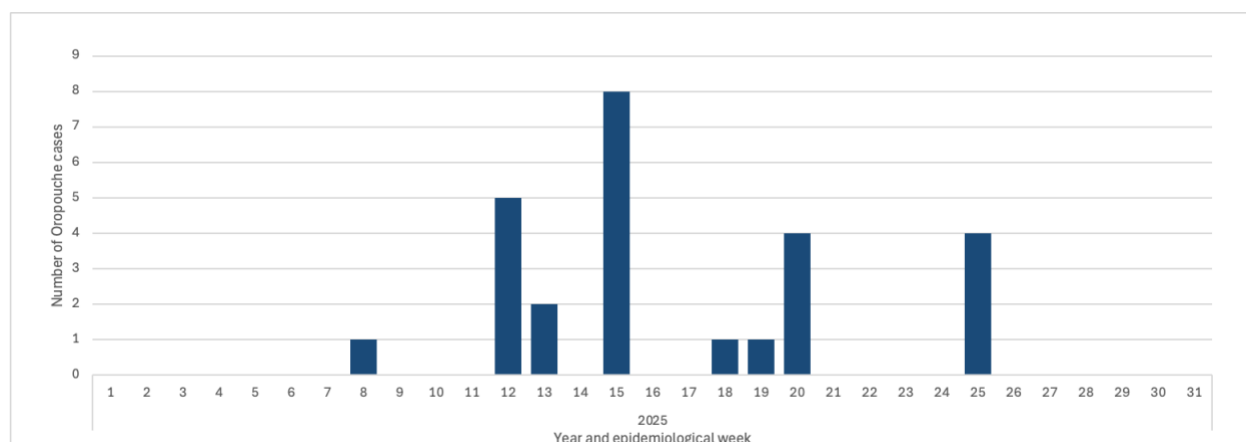
**Figure 2.** Number of confirmed cases of Oropouche by epidemiological week of symptom onset, Brazil, 2025 (as of EW 31).



**Source:** Adapted from data provided by the Brazil International Health Regulations (IHR) National Focal Point (NFP). Communication received on 6 August 2025, by email. Brasília; 2025. Unpublished (3).

In **Colombia**, between EW 1 and EW 29 of 2025, 26 laboratory-confirmed cases of Oropouche virus infection have been reported (**Figure 3**). These cases are distributed across the departments of Vaupés (n= 19), Tolima (n= 4), Córdoba (n= 2), and Huila (n= 1). Of the 26 confirmed cases, three have a history of travel to areas with virus transmission: two cases from the department of Córdoba, reported from Cundinamarca and Bogotá D.C., respectively, and one case with a history of travel to Tolima, also reported by Cundinamarca. To date, there have been no deaths or complications associated with OROV infection. In terms of distribution by sex and age group, 53.9% (n= 14) of cases are male. The highest proportion is in the 11-22 age group, with 38.5% (n= 10) of the total number of reported cases (4).

**Figure 3.** Number of confirmed cases of Oropouche by epidemiological week of symptom onset, Colombia, 2025 (as of EW 29).



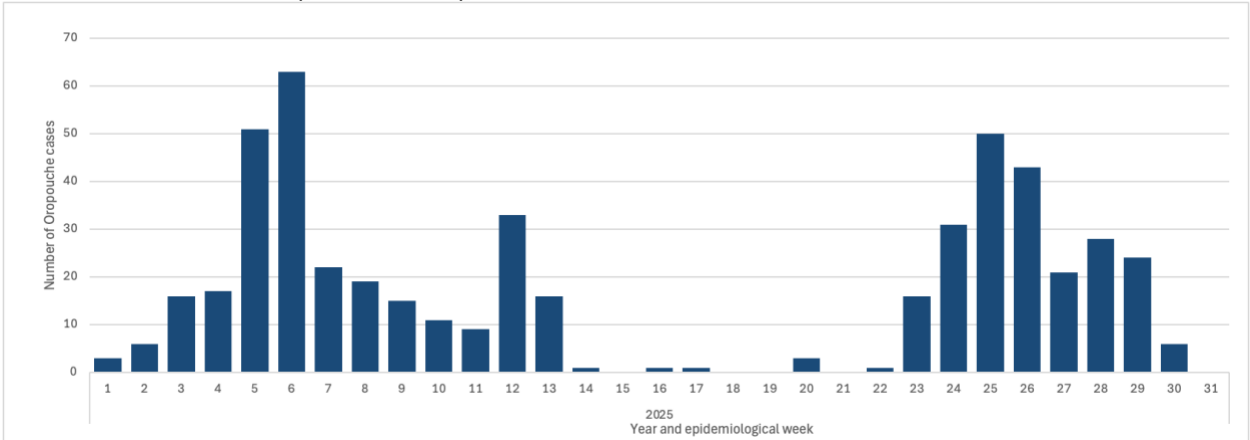
**Source:** Adapted from data provided by the Colombia International Health Regulations (IHR) National Focal Point (NFP). Communication received on 1 August 2025, by email. Bogotá, D.C.; 2025. Unpublished (4).

In **Cuba**, between EW 1 and EW 29 of 2025, 28 cases of Oropouche have been confirmed by laboratory testing. The cases are distributed in the provinces of Pinar del Río (n= 6 cases), Villa Clara (n= 5 cases), Guantánamo (n= 4 cases), Havana (n= 3), Matanzas (n= 3), Artemisa (n= 2), Cienfuegos (n= 1), Ciego de Ávila (n= 1), Camagüey (n= 1), Las Tunas (n= 1), and Santiago de Cuba (n= 1). In terms of distribution by sex and age group, 71% (n= 20) of confirmed cases are female and 28% (n= 8) are male. Ninety-six percent (n= 27) of confirmed cases belong to the 0-54 age group. Four confirmed cases presented neurological syndrome: three cases reported meningoencephalitis, and one case reported encephalitis (5).

In **Guyana**, between EW 1 and EW 29 of 2025, one confirmed case of Oropouche virus infection was reported. The case is a 15-year-old female resident of Region 5 with no history of travel and onset of symptoms on 2 January 2025. The case was confirmed by the National Public Health Laboratory through RT-PCR testing and did not require hospitalization. To date, no deaths or complications associated with OROV infection have been reported (6).

In **Panama**, between EW 1 and EW 29 of 2025, 501 laboratory-confirmed cases of Oropouche have been reported, originating in the Province of Darién (n= 265) and East Panama (n= 236) (**Figure 5**). In terms of sex distribution, 53.7% (n= 269) were female, while the highest proportion of cases (40%, n= 205) was recorded in people between 25 and 49 years of age. One death associated with OROV infection has been reported in the Province of Darién. Three cases with neurological complications have been reported: five hospitalizations with suspected acute neurological syndrome associated with OROV, of which three were confirmed. With regard to cases in pregnant women, five pregnant women with a confirmed diagnosis of OROV have been identified, with no cases of vertical transmission to date (7, 8).

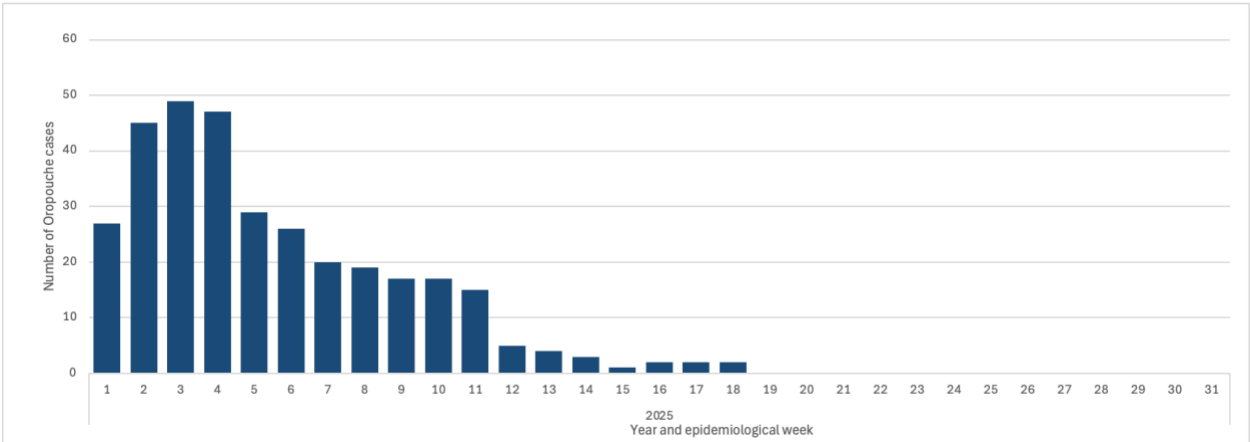
**Figure 5.** Number of confirmed cases of Oropouche by epidemiological week of symptom onset, Panama, 2025 (as of EW 29).



**Source:** Adapted from data provided by the Panama International Health Regulations (IHR) National Focal Point (NFP). Communication received on 5 August 2025, by email. Panama City; 2025. Unpublished (7).

In **Peru**, between EW 1 and EW 29 of 2025, 330 confirmed cases of Oropouche were reported in eight departments of the country. The departments where confirmed cases were reported are: Loreto (n= 164), Junín (n= 74), Ayacucho (n= 38), Cusco (n= 23), San Martín (n= 20), Ucayali (n= 7), Cajamarca (n= 3), and Amazonas (n= 1) (**Figure 6**). In terms of the distribution of cases by sex and age group, 55.9% (n= 185) were female, with the highest proportion of cases occurring in the 30-59 age group, accounting for 38.8% (n= 128) of cases. No deaths or complications that could be associated with OROV infection have been reported (9).

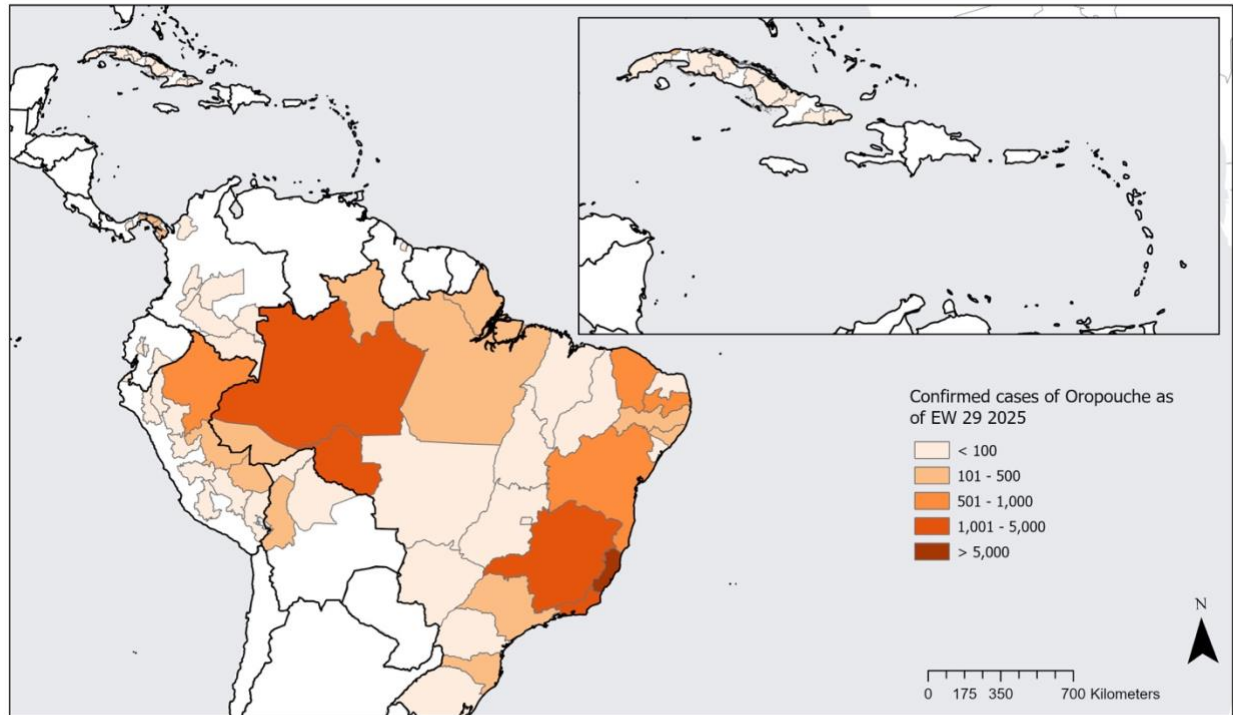
**Figure 6.** Number of confirmed cases of Oropouche by epidemiological week of symptom onset, Peru, 2025 (as of EW 29).



**Source:** Adapted from Oropouche data provided by the Peru International Health Regulations (IHR) National Focal Point (NFP). Communication received on 31 July 2025, by email. Lima; 2025. Unpublished (9).

In **Venezuela**, between EW 1 and EW 13 of 2025, five laboratory-confirmed cases of Oropouche have been reported, of which 60% (n=3) of cases correspond to persons under 18 years of age (10).

**Figure 7.** Geographic distribution of cumulative confirmed cases of autochthonous Oropouche transmission in the Americas Region, 2025\*.



**PAHO**



© Pan American Health Organization, 2025. All rights reserved.

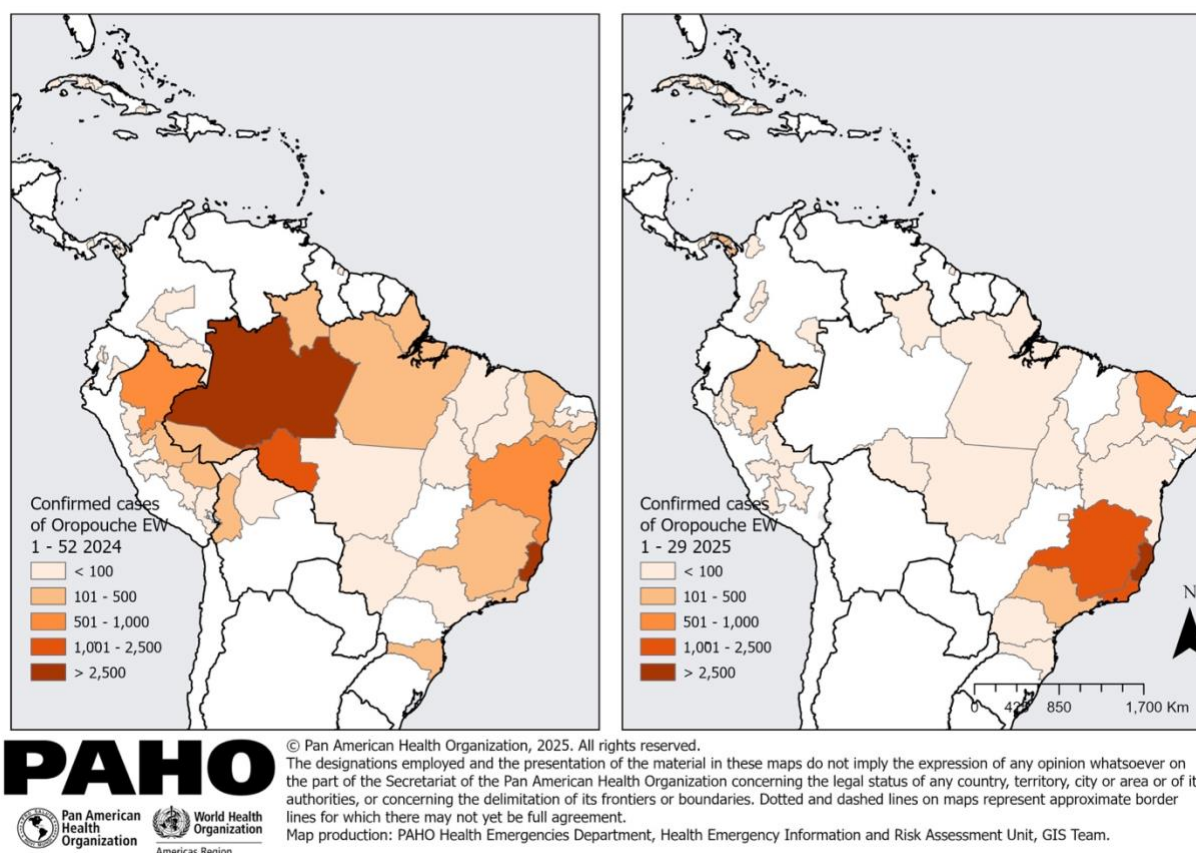
The designations employed and the presentation of the material in these maps do not imply the expression of any opinion whatsoever on the part of the Secretariat of the Pan American Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

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

**\*Note:** Information for Brazil is current as of EW 30 of 2025.

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

**Figure 8.** Geographic distribution of autochthonous Oropouche cases in the Americas Region. 2024 and 2025\*.



**\*Note:** Information for Brazil is current as of EW 30, 2025.

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

### Imported cases in countries and territories in the Americas Region in 2025

In 2025 (as of EW 29), in the Americas Region, the situation in countries and territories that have reported only imported cases of Oropouche is provided below.

In **Canada**, between EW 1 and EW 29 of 2025, one confirmed imported case of Oropouche was reported in EW 3, with a history of travel to Colombia (11).

In **Chile**, between EW 1 and EW 29 of 2025, two confirmed imported cases of Oropouche were reported, both in the Metropolitan Region, with a history of travel to Brazil. The cases did not report complications associated with the disease (12, 13).

In **the United States**, between EW 1 and EW 29 of 2025, one imported case of Oropouche was reported in the state of Wisconsin (n=1). The case had a history of travel to Panama, was hospitalized for neuroinvasive disease, and subsequently recovered from the disease (14).

In **Uruguay**, between EW 1 and EW 29 of 2025, three confirmed imported cases of Oropouche have been reported, all with a history of travel to Brazil. The cases did not report complications associated with the disease (15).



## Guidance to Member States

The Pan American Health Organization/World Health Organization (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 transmission, congenital malformations, or fetal death associated with Oropouche virus infection (OROV).

The current outbreak highlights the need to strengthen epidemiological and entomological surveillance measures and 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 any unusual events related to it, including deaths associated with OROV infection, as well as cases of possible vertical transmission and their consequences (17).

### Epidemiological surveillance

PAHO/WHO encourages continued epidemiological surveillance in the context of the circulation of other arboviruses (dengue, chikungunya, and Zika), taking into account differences in clinical presentation (18).

Depending on the epidemiological situation in each country, surveillance should be oriented to:

- Detecting the introduction of the Oropouche virus into an area.
- Monitor the spread of the Oropouche virus once introduced.
- Keeping the characterization of the Oropouche epidemiological situation up to date.

PAHO/WHO recommends that Member States detect cases according to the case definitions for Oropouche proposed by PAHO/WHO (19):

#### **Case definitions for Oropouche:**

Suspected case<sup>2</sup>: a person with acute onset of fever (or history of fever) lasting up to 5 days associated with severe headache<sup>3</sup> and two or more of the following manifestations (20):

- Myalgia or arthralgia
- Chills
- Photophobia
- Dizziness
- Retro-ocular pain

---

<sup>2</sup> Oropouche cases may present a relapse of symptoms 1 to 10 days after improvement. In these cases, where Oropouche was not initially suspected, they will be considered as suspected cases. Given the similarity of the clinical picture of Oropouche to dengue, it is necessary to perform a differential clinical diagnosis, follow up and monitor the case, and evaluate possible warning signs that indicate that it is a case of dengue and not Oropouche (20).

<sup>3</sup> The headache, in addition to being intense, is usually located in the back of the head (nape) and tends to continue even after the fever disappears (20).

- Nausea, vomiting, or diarrhea (diarrhea is defined as three or more episodes in 24 hours and a change in stool consistency).
- Any manifestation of the nervous system (double vision, paresthesia, meningitis, encephalitis, meningoencephalitis).

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

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

- Lives in or has traveled to an area with confirmed transmission of Oropouche cases.
- Has an epidemiological link to a confirmed case of Oropouche.
- Has a positive ELISA IgM test for Oropouche.

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

- Has a positive result for OROV detection, viral RNA (RT-PCR), or viral antigens.
- Has seroconversion of antibodies 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 symptom onset).
- Postmortem determination of viral RNA by RT-PCR or demonstration of antigens by immunohistochemistry or other available tests in deceased patients with suspected OROV infection.
- In cases of patients with suspected encephalitis or other neurological condition due to OROV, a positive IgM test result in cerebrospinal fluid (CSF) is considered positive.

Laboratory testing should be performed on suspected cases that meet the Oropouche case definition once OROV circulation has been identified. It is recommended that samples be taken from 10-30% of cases or up to a number of samples determined according to the capacity and resources of each country (18).

Given the clinical similarity of dengue and Oropouche cases, confirmatory tests for Oropouche should be performed in cases that test negative for dengue, especially in areas where laboratory results for dengue are low (18).

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

In **countries with autochthonous cases of Oropouche**, the following is recommended:

- Monitor the spread of the Oropouche virus to detect its introduction into new areas.
- Conduct epidemiological characterization of Oropouche cases in terms of time, place, and person.
- Perform clinical characterization of Oropouche cases.
- Intensify surveillance of patients with neurological and congenital complications in areas with OROV circulation (21).
- 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 develop high fever, severe headache (usually located in the back of the head and often continuing even after the fever subsides), muscle aches, joint pain, extreme weakness (prostration), and, in some cases, photophobia, dizziness, persistent nausea or vomiting, and lower back pain. The fever usually lasts up to 5 days. In certain patients, symptoms may include vomiting, diarrhea, and bleeding, manifesting as petechiae, epistaxis, and gingival bleeding. The infection usually resolves within 2 to 3 weeks (22).

In rare cases, OROV can cause meningitis or encephalitis. In these cases, patients show neurological symptoms and signs such as vertigo, lethargy, nystagmus, and neck stiffness. The virus can be detected in the cerebrospinal fluid (CSF) (22).

Treatment is symptomatic, focusing 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 a specialized unit that allows for constant monitoring. Currently, there are no vaccines or specific antiviral drugs available to prevent or treat OROV infection (22).

During the first week of the disease, the main differential diagnosis to consider is dengue infection. In the second week of the disease, the clinical differential diagnosis should consider the possibility of meningitis and encephalitis (21). It is reported that up to 60% of cases experience a relapse of symptoms in the weeks following recovery (22).

## Laboratory diagnosis and surveillance

Guidance on the diagnosis and laboratory surveillance of emerging arboviruses, including OROV, is detailed in the **"Guidelines for the Detection and Surveillance of Emerging Arboviruses in the Context of Other Arbovirus Circulation"** and **"Guidelines for the Detection and Surveillance of Oropouche in Possible Cases of Vertical Infection, Congenital Malformation, or Fetal Death"** (18, 23).

## Entomological surveillance, prevention, and vector control

OROV is transmitted to humans through the bite of the *Culicoides paraensis* midge, considered the main vector of this disease and widely distributed in the Americas. Other vectors such as the *Culex quinquefasciatus* mosquito can transmit OROV but are considered of secondary importance (24).

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 their breeding and resting sites. Measures implemented include: (25-27):

- Strengthen entomological surveillance in areas at risk of OROV transmission to detect species with vector capacity. Guidelines for identifying the main *Culicoides* species

are detailed in the operational document available from: <https://iris.paho.org/handle/10665.2/67598> (28).

- Mapping urban, peri-urban, and rural areas with conditions conducive to the development of potential vectors.
- Promote good agricultural practices to prevent the accumulation of waste that can serve as breeding and resting sites for vectors.
- Fill or drain water collections, ponds, or temporary flooding sites that may serve as oviposition sites for females and breeding sites for vector larvae.
- Eliminating weeds around properties to reduce resting and shelter sites for vectors.

Additional information on vector control measures can be found in the document "**Provisional guidelines for entomological surveillance and prevention measures for Oropouche virus vectors**" (29).

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 (25, 26):

- Protecting homes with fine mesh screens on doors and windows<sup>4</sup>.
- Wearing clothing that covers the legs and arms, especially in homes where someone is sick with Oropouche or another arbovirus disease.
- Use repellents containing DEET, IR3535, or icaridin, which can be applied to exposed skin or clothing, and use them strictly according to the product label instructions.
- Use of mosquito nets impregnated or not with insecticides, for those who sleep during the day (e.g., pregnant women, infants, sick or bedridden persons, the elderly).
- In outbreak situations, outdoor activities should be avoided during the period of peak vector activity (at dawn and dusk).
- For people at higher risk of being bitten, such as forestry and agricultural workers, etc., it is recommended to wear clothing that covers exposed parts of the body and to use the repellents mentioned above.

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 variables that may condition an increase in the risk of transmission. In transmission areas, insecticide spraying may be an additional measure, especially in urban and peri-urban areas, when technically recommended and feasible (25, 26).

---

<sup>4</sup> It is recommended that the mesh holes be less than 1.0 mm in size, as the average size of the female *Culicoides paraensis*, considered the main vector involved in OROV transmission, is 1 to 1.5 mm.

## References

1. Ministério da Saúde do Brasil. Informe Semanal nº 17 - Arboviroses Urbanas - SE 23 – 17 de junio del 2025. Brasília; COE; 2025 [cited on 30 July 2025]. Available from: <https://www.gov.br/saude/pt-br/assuntos/saude-de-a-a-z/a/arboviroses/informe-semanal/2025/informe-semanal-no-17.pdf/view>
2. Ministério da Saúde do Brasil. Brasília; COE; 2025 [cited on 30 July 2025]. Available from: <https://www.gov.br/saude/pt-br/assuntos/saude-de-a-a-z/o/oropouche/painel-epidemiologico>.
3. Brazil International Health Regulations (IHR) National Focal Point (NFP). Communication received on 6 August 2025, by email. Brasília; 2025. Unpublished.
4. Colombia International Health Regulations (IHR) National Focal Point (NFP). Communication received on 1 August 2025, by email. Bogotá, D.C.; 2025. Unpublished.
5. Cuba International Health Regulations (IHR) National Focal Point (NFP). Communication received on 8 August 2025, by email. Havana; 2025. Unpublished.
6. Guyana International Health Regulations (IHR) National Focal Point (NFP). Communication received on 31 July 2025, by email. Georgetown; 2025. Unpublished.
7. Panama International Health Regulations (IHR) National Focal Point (NFP). Communication received on 5 August 2025, by email. Panama City; 2025. Unpublished.
8. Oropouche en Panamá Boletín Epidemiológico No. 9 Año 2024 – 2025 SE 15 – 25 de abril del 2025. Panama City, Panama; 2025 [cited 30 July 2025]. Available from: [https://www.minsa.gob.pa/sites/default/files/publicacion-general/boletin\\_oropouche\\_panama\\_no\\_9\\_EW\\_15\\_abril\\_2025\\_final.pdf](https://www.minsa.gob.pa/sites/default/files/publicacion-general/boletin_oropouche_panama_no_9_EW_15_abril_2025_final.pdf).
9. Peru International Health Regulations (IHR) National Focal Point (NFP). Communication received on 31 July 2025, by email. Lima; 2025. Unpublished.
10. Venezuela (Bolivarian Republic of) International Health Regulations (IHR) National Focal Point (NFP). Communication received on 6 April 2025, by email. Caracas; 2025. Unpublished.
11. Canada International Health Regulations (IHR) National Focal Point (NFP). Communication received on 1 August 2025, by email. Ottawa; 2025. Unpublished.
12. Chile International Health Regulations (IHR) National Focal Point (NFP). Communication received on 1 August 2025 by email. Santiago, Chile; 2025. Unpublished.
13. Departamento de Epidemiología. Boletín epidemiológico semanal arbovirus y malaria SE 30 – 2025, Santiago de Chile; 2025, Santiago, Chile; 2025 [cited on 11 August 2025]. Available from: [https://epi.minsal.cl/wp-content/uploads/2025/08/Boletin\\_Epidemiologico\\_Arbovirus\\_Malaria\\_EW\\_30\\_2025.pdf](https://epi.minsal.cl/wp-content/uploads/2025/08/Boletin_Epidemiologico_Arbovirus_Malaria_EW_30_2025.pdf).
14. United States of America International Health Regulations (IHR) National Focal Point (NFP). Communication received on 6 August 2025, by email. Washington, D.C.; 2025. Unpublished.
15. Uruguay International Health Regulations (IHR) National Focal Point (NFP). Communication received on 6 August 2025, by email. Montevideo; 2025. Unpublished.

16. Pan American Health Organization/World Health Organization. Epidemiological Alert - Oropouche in the Americas, 3 February 2025. Washington, D.C.: PAHO/WHO; 2025. Available from: <https://www.paho.org/en/documents/epidemiological-update-oropouche-americas-region-11-february-2025>.
17. Pan American Health Organization / World Health Organization. Public Health Risk Assessment Related to Oropouche Virus (OROV) in the Americas Region - 3 August 2024. Washington, D.C.: PAHO/WHO; 2024. Available from: <https://www.paho.org/en/documents/public-health-risk-assessment-related-oropouche-virus-orov-region-americas-3-august-2024>.
18. Pan American Health Organization. Guidelines for the detection and surveillance of emerging arboviruses in the context of other arbovirus circulation, April 18, 2024. Washington, D.C.: PAHO; 2024. Available from: <https://www.paho.org/en/documents/guidelines-detection-and-surveillance-emerging-arboviruses-context-circulation-other>.
19. Pan American Health Organization. Oropouche virus disease. Washington, D.C.: PAHO; 2025 [cited 8 August 2025]. Available from: <https://www.paho.org/en/topics/oropouche-virus-disease>.
20. Tortosa F, Gutiérrez Castillo G, Izcovich A, Luz K, dos Santos T, Gonzalez-Escobar G et al. Living systematic review of the clinical manifestations of Oropouche fever: keys to differentiating it from dengue and other arboviruses. *Rev Panam Salud Publica*. 2024; e136. Available from: <https://doi.org/10.26633/RPSP.2024.136>.
21. Martos F, Betancourt I, Osorio I, González N, Morales I, Peña C, et al. Neurological Performance and Clinical Outcomes Related to Patients with Oropouche-Associated Guillain-Barré Syndrome. *Journal of the Peripheral Nervous System*. 2025 Mar;30(1): e12683. Available from: <https://doi.org/10.1111/jns.12683>.
22. Pan American Health Organization. Instrument for the diagnosis and care of patients with suspected arbovirus infection. Washington, D.C.: PAHO; 2016. Available from: <https://iris.paho.org/handle/10665.2/33895>.
23. Pan American Health Organization. Recommendations for the Detection and Surveillance of Oropouche in possible cases of vertical infection, congenital malformation, or fetal death Washington, D.C.: PAHO; 2024. Available from: <https://www.paho.org/en/documents/recommendations-detection-and-surveillance-oropouche-possible-cases-vertical-infection>.
24. Sakkas H, Bozidis P, Franks A, Papadopoulou C. Oropouche Fever: A Review. *Viruses*. 2018; 10(4):175. Available from: <https://doi.org/10.3390/v10040175>.
25. Pan American Health Organization / World Health Organization. Criaderos de Culicoides paraensis y opciones para combatirlos mediante el ordenamiento del medio. Washington, D.C.: PAHO/WHO; 1987. Available from: <https://iris.paho.org/handle/10665.2/17928>.
26. World Health Organization. Vector control. Methods for use by individuals and communities. Geneva: WHO; 1997. Available from: <https://www.who.int/publications/i/item/9241544945>.
27. Harrup L, Miranda M, Carpenter S. Advances in control techniques for Culicoides and prospects. *Vet Ital*. 2016;52(3-4):247-264. Available from: <https://doi.org/10.12834/vetit.741.3602.3>.
28. Pan American Health Organization and Oswaldo Cruz Foundation. Operational document for the identification of Culicoides Latreille (Diptera: Ceratopogonidae).

Washington, D.C.: PAHO/FIOCRUZ; 2025. Available from:  
<https://iris.paho.org/handle/10665.2/67598>.

29. Pan American Health Organization. Interim guidance for entomological surveillance and prevention measures for Oropouche virus vectors. Washington, D.C.: PAHO; 2024. Available from: <https://iris.paho.org/handle/10665.2/61628>.