



Pan American
Health
Organization



World Health
Organization
Americas Region

Epidemiological Alert Myiasis Caused by *Cochliomyia hominivorax* in the Americas Region

16 October 2026

In light of the increase and expansion of the area where human cases of myiasis caused by *Cochliomyia hominivorax* (New World screwworm) are occurring in countries in Central America and Mexico, following the reemergence and geographic spread of this parasite in animals, the Pan American Health Organization/World Health Organization (PAHO/WHO) calls on Member States to strengthen epidemiological surveillance, ensure timely diagnosis of human cases, and provide appropriate clinical management, while reinforcing coordination among the human health, animal health, and environmental sectors under the One Health approach. It also recommends intensifying prevention and risk communication efforts, particularly in areas where it has recently been reintroduced and among populations at higher risk of exposure.

About Myiasis Caused by *Cochliomyia hominivorax*

Human myiasis (ICD-11: 1G01) is an infestation of tissues, wounds, mucous membranes, or body cavities by the larvae of various fly species. Among the species that cause human myiasis in the Americas Region is *Cochliomyia hominivorax*, known as the New World screwworm, which is of particular relevance in the Americas and is especially significant due to its ability to feed on living tissue and cause progressive lesions (1–3).

Myiasis caused by *C. hominivorax* is a parasitic disease that affects warm-blooded animals, including humans. The larvae of *C. hominivorax* feed on living tissue. Adult female flies lay their eggs primarily at the edges of wounds, skin lesions, mucous membranes, or exposed cavities; after hatching, the larvae penetrate the tissue and can cause progressive lesions and serious complications if timely treatment is not provided (2–4).

Adult females of *C. hominivorax* can travel up to 50 kilometers from the site where they emerge; furthermore, their accidental transport via the movement and transit of live animals or on vehicles on which they land can facilitate travel over greater distances. The species is found in tropical and subtropical regions; it is rarely found above 2,100 meters and does not typically survive in cold climates (4, 5).

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Background

Eradication programs based on surveillance, animal health control, and the sterile insect technique succeeded in eliminating the parasite from the United States of America (1966), Mexico (1991), and Central America (1994–2000) (6). Beginning in 2022, with a marked increase reported by Panama in 2023, its presence was again documented in Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Panama, and the United States of America (5). The spread among animals increases the likelihood of human exposure and requires a coordinated response among different countries and sectors (3, 5).

Summary of the Situation in the Americas Region

In 2025, 837 cases of myiasis caused by *C. hominivorax*, including four deaths, were reported in eight countries in the Americas. Between 1 January and September 2026, 1,355 cases were reported, including five deaths, in six countries in the Region, representing a 62% increase in 2026 compared with the previous year (**Table 1**) (7–20).

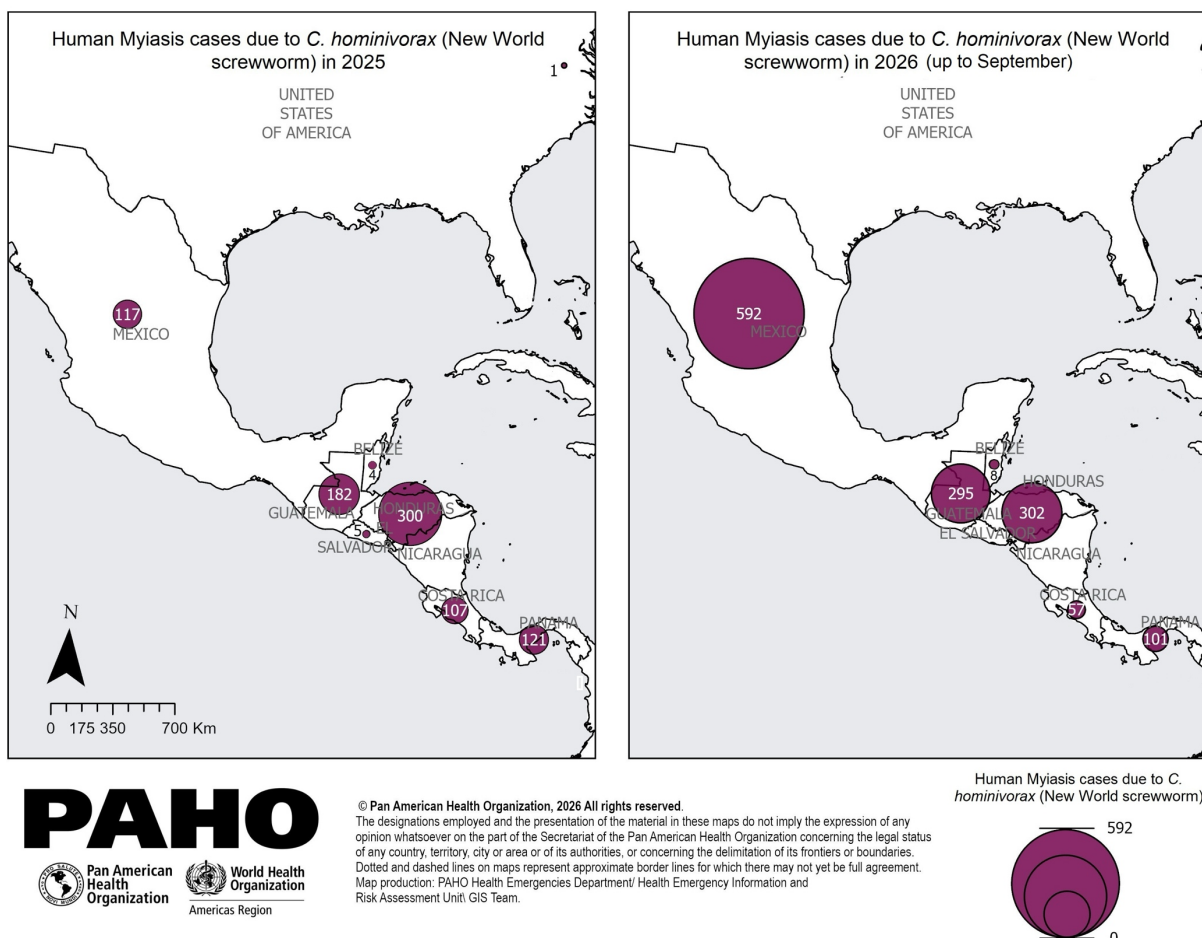
Table 1. Human myiasis caused by *C. hominivorax* in countries of the Americas Region between 2025 and 2026 (up to September).

Country	Number of cases in 2025	Number of deaths in 2025	Number of cases in 2026	Number of deaths in 2026
Belize	4	0	8	0
Costa Rica	107	3	57	0
El Salvador	5	0	0	0
Guatemala	182	0	295	0
Honduras	300	1	302	0
Mexico	117	0	592	5
Panama	121	0	101	0
United States of America	1	0	0	0
Total	837	4	1,355	5

Source: Adapted from data provided by the respective countries (7–20).

The following is a summary of the situation regarding *C. hominivorax* myiasis in countries in Central and North America, listed in alphabetical order, that have provided information on confirmed cases during 2025 and 2026 to the Pan American Health Organization (PAHO) (**Figure 1**).

Figure 1. Human myiasis caused by *C. hominivorax* in countries of the Americas Region between 2025 and 2026 (up to September).



Source: Adapted from data provided by the respective countries (7–20).

In **Belize**, in 2025, four confirmed cases¹ of myiasis caused by *C. hominivorax* were reported. The cases were identified between epidemiological weeks (EW) 33 and EW 47. All reported cases occurred in male residents of the Cayo District between the ages of 21 to 60 years; there were no deaths reported. In 2026, as of EW 38, eight confirmed human cases of *C. hominivorax* myiasis have been reported, with no deaths directly attributable to the myiasis. The cases were identified in the districts of Cayo (n= 3), Corozal (n= 3), Orange Walk (n= 1), and Stann Creek (n= 1). The cases were between 34 and 85 years old, with a mean age of 52 years. A total of 38% of the cases (n= 3) occurred in persons between the ages of 65 to 85 years, followed by persons between 60 to 64 years, who accounted for 25% of the cases (n= 2). Of the total cases reported between 2025 and 2026 (n= 12), 92% (n= 11) required

¹ Case definitions used in and provided by **Belize**: **Suspected or probable case**: any person presenting with a wound infested with live larvae and showing signs of deep tissue involvement, who resides in or has a history of recent travel to an area with known transmission. **Confirmed case**: a person with an infection confirmed by the presence of *Cochliomyia hominivorax* larvae, as confirmed by the entomology unit of the Belize Agricultural Health Authority (BAHA). **Discarded case**: a suspected case with a negative laboratory diagnosis for *Cochliomyia hominivorax* larvae.

hospitalization. All human cases reported in 2025 and 2026 were laboratory-confirmed through taxonomic identification of the larvae (7–9).

In **Costa Rica**, in 2025, 107 confirmed cases² of myiasis caused by the screwworm (*C. hominivorax*) were reported, including three deaths. The cases were reported in the provinces of Alajuela (n= 24), San José (n= 21, including one death), Limón (n= 20), Guanacaste (n= 15 including one death), Puntarenas (n= 12, including one death), Heredia (n= 10), and Cartago (n= 5). The cases ranged between the ages of under one to 97 years, with a mean age of 58 years; 50% of the cases (n= 53) were among people aged 65 years and above, followed by the group between 20 to 64 years, which accounted for 43% of the cases (n= 46). In 2026, as of EW 37, 57 confirmed cases² of *C. hominivorax* myiasis have been reported in Costa Rica. The cases were reported in the provinces of Alajuela (n= 12), Puntarenas (n= 11), San José (n= 10), Guanacaste (n= 9), Heredia (n= 5), Limón (n= 6), and Cartago (n= 4). The cases ranged between the ages of under one year to 94 years, with a mean age of 60 years; 47% (n= 27) were individuals aged 20 to 64 years, and another 47% (n= 27) were individuals aged 65 years and older. The cases recorded in both 2025 and 2026 were confirmed through entomological studies to identify eggs and/or larvae of *C. hominivorax*. This process was supported by the National Laboratory of Veterinary Services (LANASEVE, per its acronym in Spanish) of the National Animal Health Service (SENASA, per its acronym in Spanish), which was responsible for the identification and diagnostic confirmation of the collected specimens (10, 11).

In **El Salvador**, five confirmed cases³ of *C. hominivorax* myiasis were reported in 2025. The cases were reported in the departments of La Libertad (n= 2), La Unión (n= 1), Sonsonate (n= 1), and Usulután (n= 1). The cases ranged between the ages of 50 to 92 years, with a mean age of 71 years; 80% (n= 4) were among the 60 years and above age group, and 20% (n= 1) were among the 50–59 age group. All cases required hospitalization (n= 5). The cases reported in 2025 were confirmed through taxonomic identification. In 2026, as of EW 38, no cases of *C. hominivorax* myiasis have been reported in El Salvador (12, 13).

In **Guatemala**, in 2025, 182 confirmed cases⁴ of myiasis caused by *C. hominivorax* were reported. The cases were reported in the departments of Suchitepéquez (n= 22), Guatemala (n= 20), Chiquimula (n= 18), Jutiapa (n= 17), Alta Verapaz (n= 14), Retalhuleu (n= 14), Sacatepéquez (n= 13), Quiché (n= 12), Santa Rosa (n= 11), Jalapa (n= 10), San Marcos (n=

² Case definitions used in and provided by **Costa Rica: Suspected case:** a person presenting with localized skin pain, redness, itching, or a weeping lesion, with the presence of worm eggs and/or larvae in the wound. **Confirmed case:** a person with an infection confirmed by the presence of *Cochliomyia hominivorax* larvae by the National Laboratory of Veterinary Services (LANASEVE, per its acronym in Spanish). **Discarded case:** a suspected case with a negative laboratory diagnostic result for *Cochliomyia hominivorax* larvae.

³ Case definitions used in and provided by **El Salvador: Suspected case:** A person presenting with localized skin pain, redness, itching, a weeping lesion, and the presence of worm eggs or larvae in the wound. The person has a history of having been in an area with reported cases or of having had contact with animals infested with the flesh-boring fly within the past 21 days. **Confirmed case:** A suspected case in which *Cochliomyia hominivorax* larvae are identified by a laboratory of the Ministry of Agriculture and Livestock (MAG, per its acronym in Spanish). **Discarded case:** A suspected case for which the laboratory diagnosis of myiasis is negative for *Cochliomyia hominivorax* larvae.

⁴ Case definitions used in and provided by **Guatemala: Suspected case** (ICD-10 B87.9): A person presenting with localized skin pain, redness, itching, and a suppurating lesion, with the presence of eggs and/or worm larvae in the wound. **Confirmed case** (ICD-10 U55.0 and U55.9): A person with an infection confirmed by the presence of *Cochliomyia hominivorax* larvae by the National Laboratory Directorate. **Discarded case:** A suspected case with a negative result for *Cochliomyia hominivorax* larvae.

8), Zacapa (n= 7), Sololá (n= 6), Escuintla (n= 3), Totonicapán (n= 2), Chimaltenango (n= 1), El Progreso (n= 1), Izabal (n= 1), Petén (n= 1), and Quetzaltenango (n= 1). The case age distribution ranged between one to 102 years, with a median age of 54 years; by age group, 28% of cases (n= 51) were between 50 and 64 years of age, followed by 20% (n= 36) among the 30 to 49 years of age, and 20% (n= 35) were among the over 80 years of age group. Seventy-three percent of the cases (n= 133) were male (14).

In 2026, as of EW 38, 295 confirmed cases⁴ of *C. hominivorax* myiasis have been reported in Guatemala. The cases were reported in the departments of Guatemala (n= 34), Suchitepéquez (n= 32), Huehuetenango (n= 23), Quiché (n= 23), Santa Rosa (n= 22), Chiquimula (n= 19), San Marcos (n= 19), Alta Verapaz (n= 18), Retalhuleu (n= 17), Jutiapa (n= 16), Sacatepéquez (n= 15), Chimaltenango (n= 14), Escuintla (n= 13), Jalapa (n= 8), Quetzaltenango (n= 7), Zacapa (n= 7), Sololá (n= 6), Baja Verapaz (n= 1), and Izabal (n= 1). The case ages ranged between one to 100 years, with a median age of 61 years; 26% of the cases (n= 76) were among the 65 to 79 years of age group; followed by 22% of the cases (n= 63) among the 50 to 64 years of age group, and 20% of the cases (n= 57) were among the 30 to 49 years of age group. Sixty percent of the cases (n= 177) were male (14).

Cases in both 2025 and 2026 have been confirmed through taxonomic identification (14).

In **Honduras**, in 2025, 300 confirmed cases⁵ of myiasis caused by *C. hominivorax* were reported, including one death. The distribution by department shows a higher concentration of cases in the D.C. Metropolitan Region (n= 61), followed by Yoro (n= 23), Francisco Morazán (n= 21), Intibucá (n= 20), Atlántida (n= 19), Lempira (n= 19), Santa Bárbara (n= 17), the San Pedro Sula Metropolitan Region (n= 17), Olancho (n= 13), Choluteca (n= 13), La Paz (n= 12), Gracias a Dios (n= 11), Comayagua (n= 10), Copán (n= 8), El Paraíso (n= 6, including one death), Ocotepeque (n= 5), Colón (n= 4), Valle (n= 3), and the Bay Islands (n= 1). Regarding distribution by age group, the group between 50 to 59 years accounted for 20% of the cases (n= 59), followed by 14% of cases (n= 43) among the 60 to 69 years of age group and 14% of cases (n= 41) among the 70 to 79 years of age group (15, 16).

In 2026, as of EW 38, 302 confirmed cases⁵ of *C. hominivorax* myiasis were reported in Honduras. The distribution by department shows that the highest concentration of cases was again in the D.C. Metropolitan Region (n= 67), followed by Cortés (n= 28), Francisco Morazán (n= 27), Copán (n= 24), Yoro (n= 23), Atlántida (n= 17), El Paraíso (n= 15), Santa Bárbara (n= 14), Comayagua (n= 13), La Paz (n= 13), Intibucá (n= 12), Ocotepeque (n= 9), Gracias a Dios (n= 8), Lempira (n= 8), Olancho (n= 7), Colón (n= 6), Choluteca (n= 4), the San Pedro Sula Metropolitan Region (n= 4), and Valle (n= 3). Regarding distribution by age group, the group between 60 and 69 years accounted for 20% of cases (n= 59), followed by 16% of cases (n= 49) among the 70 to 79 years age group, 13% of cases (n= 39) among the 50 to 59 years of age group, and 10% of cases (n= 29) among the 40 to 49 years of age group with (15, 16).

Cases in both 2025 and 2026 were confirmed through taxonomic identification by the Secretariat of Agriculture and Livestock (SAG, per its acronym in Spanish) via the National Service for Agrifood Health and Safety (SENASA, per its acronym in Spanish)) and its

⁵ Case definitions used in and provided by **Honduras: Suspected case:** A person of any age or sex presenting with localized skin pain, redness, itching, and a weeping lesion, with the presence of worm eggs and/or larvae in the wound. **Confirmed case:** Any suspected case with infection confirmed by the Institute of Veterinary Medical Research of Honduras (IHIMV, per its acronym in Spanish) of SENASA due to the presence of *Cochliomyia hominivorax* in its egg or larval stage.

laboratory, the Honduran Institute for Medical and Veterinary Research (IHIMV, per its acronym in Spanish) (15, 16).

In **Mexico**, in 2025, 117 confirmed cases⁶ of myiasis caused by *C. hominivorax* were reported. The cases were reported in the states of Chiapas (n= 90), Yucatán (n= 10), Quintana Roo (n= 6), Campeche (n= 4), Oaxaca (n= 4), Tabasco (n= 2), and Veracruz (n= 1). The cases ranged in ages between 12 to 90 years, with a mean age of 55 years; 52% of cases (n= 61) were among the 60 and above age group, followed by 23% of cases (n= 28) among the 40 to 59 years of age group. Of the total cases, 69% (n= 80) required hospitalization and 31% (n= 37) received outpatient care (17).

In 2026, as of EW 37 in 2026, 592 confirmed cases⁶ of *C. hominivorax* myiasis have been reported, including five deaths in Mexico. Sixty-one percent of the cases (n= 359) are concentrated in the states of Veracruz (n= 115, including two deaths), Chiapas (n= 77), Oaxaca (n= 64, including one death), Puebla (n= 64), and Yucatán (n= 39, including one death). The states with the lowest proportion of reported cases are: San Luis Potosí (n= 36), Guerrero (n= 35), Hidalgo (n= 24), Quintana Roo (n= 23), Guanajuato (n= 13), Tabasco (n= 12), the State of Mexico (n=11), Campeche (n= 9), Mexico City (n= 9), Zacatecas (n= 9), Querétaro (n= 8, including one death), Morelos (n= 7), Coahuila (n= 5), Colima (n= 5), Jalisco (n= 4), Nuevo León (n= 4), Tamaulipas (n= 4), Michoacán (n= 3), Nayarit (n= 3), Tlaxcala (n= 3), Aguascalientes (n= 2), Durango (n= 2), and Sinaloa (n= 2). The case ages ranged between one and 98 years, with a mean age of 63 years; 63% of cases (n= 372) were among the 60 years and above age group, followed by 31% of cases (n= 185) among the 30 to 59 years of age group. Of the total cases in 2025 and 2026, 81% required hospitalization (n= 574) (17).

Cases in both 2025 and 2026 were confirmed through taxonomic identification by the National Network of Public Health Laboratories of the Institute of Epidemiological Diagnosis and Reference (InDRE, per its acronym in Spanish), in collaboration with the Mexico-United States Commission for the Prevention of Foot-and-Mouth Disease and Other Exotic Animal Diseases (CPA, per its acronym in Spanish) of the Secretariat of the National Service for Agrifood Health, Safety, and Quality (Senasica, per its acronym in Spanish) (17).

In **Panama**, in 2025, 121 confirmed cases⁷ of myiasis caused by *C. hominivorax* were reported. The provinces with the highest number of reported cases were Panama (n= 47), Coclé (n=

⁶ Case definitions used in and provided by **Mexico: Probable case:** A person of any age or sex in whom, within the last 7 days, the following has been identified in a wound or on a mucous membrane: the presence of larvae and/or a sensation of movement, accompanied by pain or localized erythema, and in whom an epidemiological association is identified: (a) Presence of the parasite. (b) History of visiting or residing in areas of transmission during the week prior to the onset of clinical symptoms. (c) Presence of confirmed cases in humans or animals in the locality. **Confirmed case:** A probable case with taxonomic identification as *C. hominivorax* issued by a laboratory of the National Network of Public Health Laboratories (RNLS, per its acronym in Spanish). **Discarded case:** A probable case with a negative taxonomic identification for *C. hominivorax* issued by a laboratory in the National Network of Public Health Laboratories (RNLS). *Note:* In individuals with impaired sensation or consciousness, the presence of a wound or mucous membranes containing larvae and erythema, without the presence of any other signs or symptoms, is considered a probable case.

⁷ Case definitions used in and provided by **Panama: Suspected Case:** A patient presenting with visible larvae in open wounds, on parts of the body that have undergone surgery, or on mucous membranes; wounds as small as tick bites that can attract flies and lead to infestation. Requires an entomological laboratory diagnosis to verify the type of larva. **Confirmed Case:** A suspected case with positive laboratory

23), Chiriquí (n= 20), Veraguas (n= 8), Los Santos (n= 5), Herrera (n= 4), Darién (n= 3), Colón (n= 2), and Bocas del Toro (n= 1), as well as the comarcas of Ngäbe-Buglé (n= 7) and Guna Yala (n= 1). The case ages ranged between one to 101 years, with a mean age of 55 years; 46% of the cases (n= 56) were among the group of 65 years and above, followed by 14% of the cases (n= 17) among the 50 to 59 years of age group, and 12% of the cases (n= 14) among the 60 to 64 years of age group. Of the total cases, 64% (n= 78) required hospitalization and 36% of the cases (n= 43) were managed on an outpatient basis (18).

In 2026, as of EW 38, 101 confirmed cases of *C. hominivorax* myiasis have been reported in Panama. The cases were reported in the provinces of Panama (n= 53), Chiriquí (n= 13) Los Santos (n= 8), Veraguas (n= 7), Coclé (n= 6), Colón (n= 4), Herrera (n= 3), and Bocas del Toro (n= 2), as well as in the comarcas of Ngäbe-Buglé (n= 4) and Guna Yala (n= 1). The case ages ranged between one to 98 years, with a mean age of 54 years; 44% of the cases (n= 44) were among the group of 65 years and above, 14% of the cases (n= 14) were among the group of 35 to 49 years of age, and 13% of the cases (n= 13) were the group of 50 to 59 years of age. Of the total cases, 64% (n= 65) required hospitalization and 36% (n= 36) were managed on an outpatient basis. Cases in both 2025 and 2026 were confirmed through taxonomic identification by the reference laboratory of the Panama–United States Commission for the Eradication and Prevention of Screwworm Infestation in Livestock (COPEG, per its acronym in Spanish) (18).

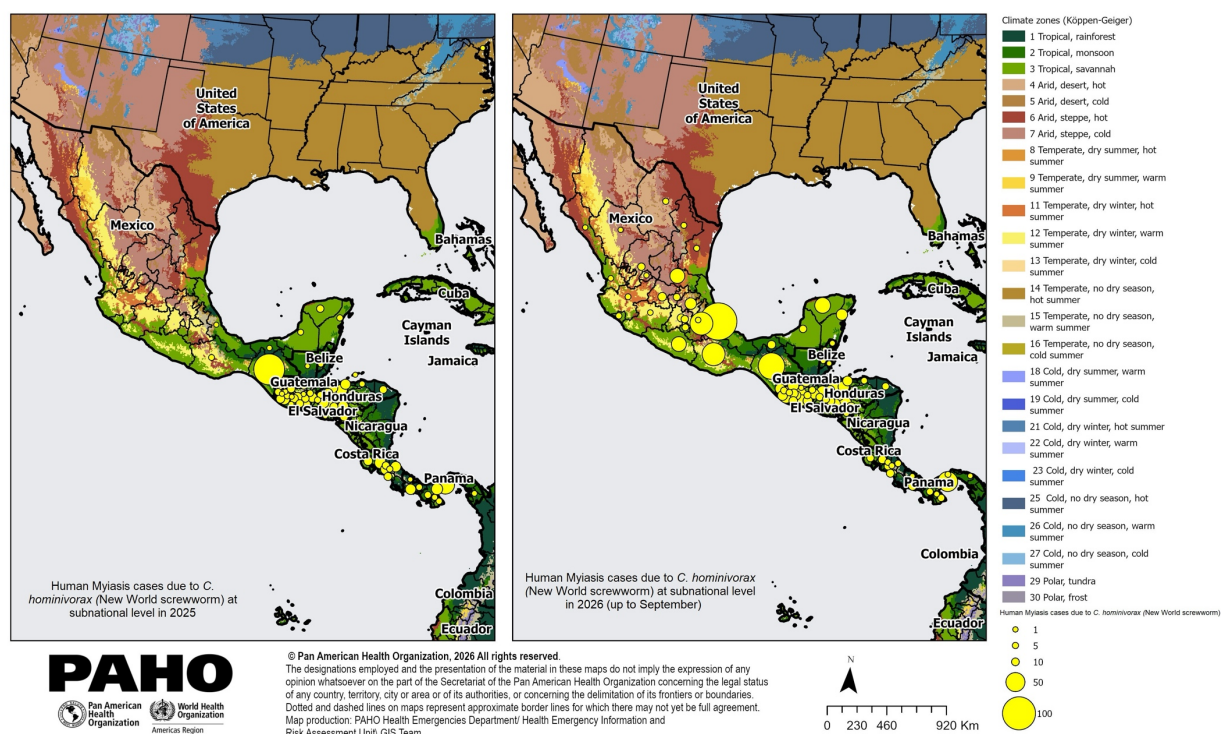
In the **United States of America**, in 2025, one case⁸ of *C. hominivorax* myiasis was reported, identified in EW 32. The case was a resident of the state of Maryland who had traveled to El Salvador. The case was confirmed through taxonomic identification by the United States Centers for Disease Control and Prevention (CDC). In 2026, as of EW 38, no human cases of *C. hominivorax* myiasis have been reported in the United States (19, 20).

The subnational distribution of confirmed human cases of *C. hominivorax* myiasis reported in 2025 and 2026 is presented in the following figures, overlaid on climate zones (**Figure 2**), land cover (**Figure 3**), and cattle distribution (**Figure 4**), respectively. These cartographic representations provide an overview of the environmental and livestock context of the areas with reported cases in Central America and North America.

tests for eggs and/or larvae of *Cochliomyia hominivorax*. *The test must be a positive entomological test conducted by the Panama–United States Commission for the Eradication and Prevention of Screwworm Infestation in Livestock (COPEG, per its acronym in Spanish) laboratory.

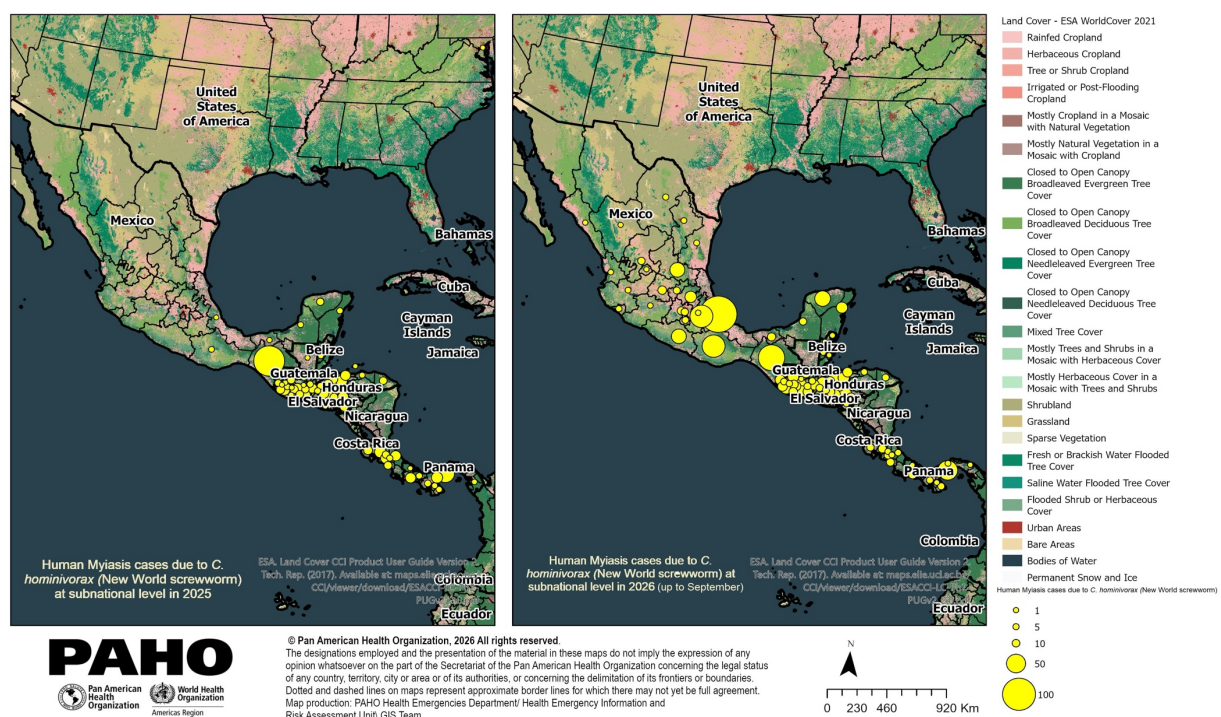
⁸ Case definitions used in and provided by the **United States of America**: The Council of State and Territorial Epidemiologists has now established this standardized case definition for the surveillance of human cases of New World screwworm myiasis, to be used for all future cases, available from: https://cdn.ymaws.com/www.cste.org/resource/resmgr/2015weston/26-ID-05_New_World_Screwworm.pdf

Figure 2. Human myiasis caused by *C. hominivorax* in countries of the Americas Region between 2025 and 2026 (up to September), with cases at the subnational level, by climate zones.



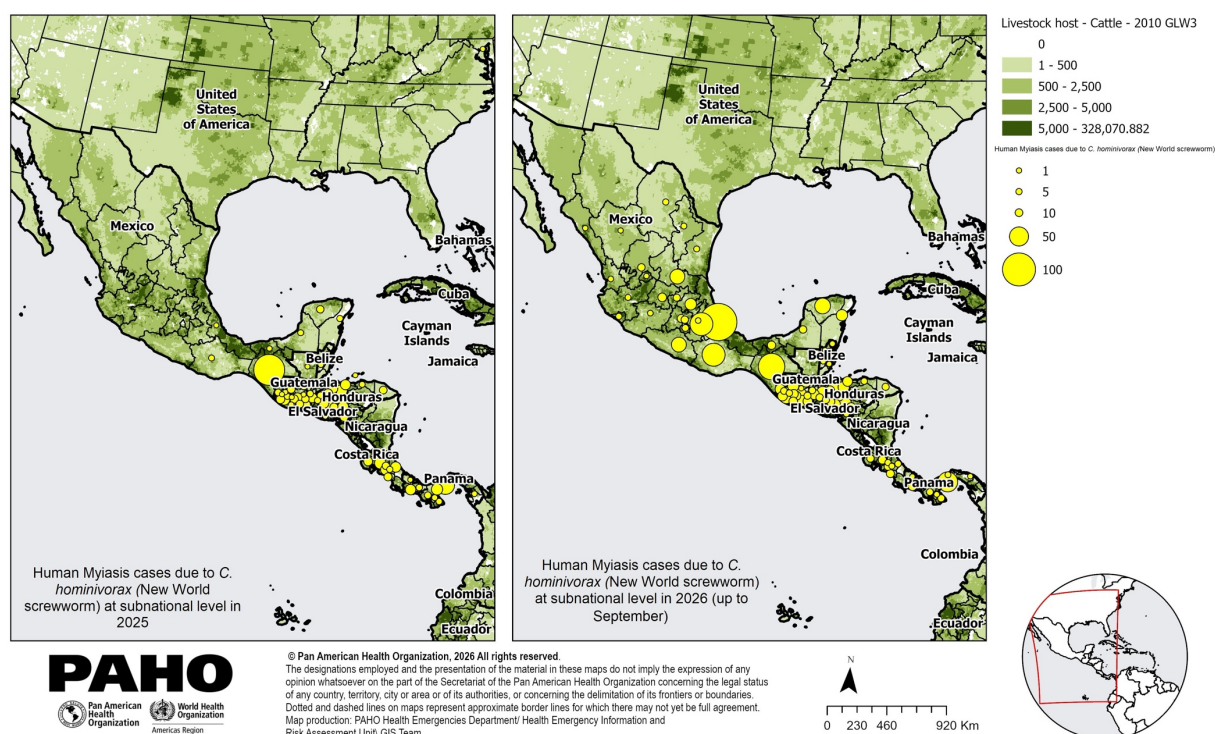
Source: Adapted from data provided by the respective countries (7–20).

Figure 3. Human myiasis caused by *C. hominivorax* in countries of the Americas Region between 2025 and 2026 (up to September) with cases at the subnational level, by land cover.



Source: Adapted from data provided by the respective countries (7–20).

Figure 4. Human myiasis caused by *C. hominivorax* in countries of the Americas Region between 2025 and 2026 (up to October), with cases at the subnational level, by distribution of cattle.



Source: Adapted from data provided by the respective countries (7–20).

Epidemiological and clinical aspects

Female *C. hominivorax*, attracted by blood from inflamed tissue and odors emanating from wounds or exposed mucous membranes, lay clusters of eggs in skin lesions or natural cavities; even abrasions, insect bites, or small surgical wounds can allow for infestation. The eggs hatch approximately 12 to 24 hours later, and the larvae penetrate the lesion, where they feed on living tissue, causing pain, inflammation, and progressive tissue destruction. After feeding for five to seven days, they fall to the ground to pupate. The rate of subsequent development depends on temperature and humidity, and under warm conditions, the life cycle can be completed in about three weeks (3, 21).

Myiasis is not transmitted from person to person. The presence of infestations in animals indicates local circulation of the fly and a potential risk of human exposure. Although anyone can be affected, the risk is higher among those who live in or travel to areas where the parasite is present and who have untreated wounds, chronic ulcers, recent surgical wounds, or conditions that make hygiene difficult. Spending time outdoors and proximity to livestock can also increase the risk of exposure. The risk may also be higher in people with functional dependence, difficulties with self-care, or insufficient support, as well as in those with chronic wounds or other conditions of clinical or social vulnerability (2, 22).

Clinical Manifestations

The most common presentation is myiasis of wounds or ulcers. The nose, mouth, ear, eyes, genitals, and other cavities may also be affected. Manifestations include pain, itching, a sensation of movement, visible larvae, bleeding, edema, bloody or purulent discharge, a foul odor, and a progressive increase in the depth or extent of the lesion. Invasion of the mucous membranes and cavities can cause extensive tissue destruction. Ocular, nasal, oral, and airway forms require urgent evaluation (4, 21, 22).

Complications include secondary bacterial infection, necrosis, hemorrhage, functional impairment, and involvement of deep anatomical structures. Without treatment, the infestation can be fatal. In a series of confirmed cases in Mexico, the lower extremities were the most common site of infection, and a high proportion of patients had concurrent diseases or conditions, reinforcing the need for a thorough examination of wounds in vulnerable individuals (22, 23).

Guidance for Member States

The aim of this Epidemiological Alert is to provide Member States with updated guidance on the detection, reporting, diagnosis, prevention, risk communication, and clinical management of suspected or confirmed cases of myiasis by New World screwworm, within the epidemiological context of each country (2, 4).

Differences in countries' surveillance and reporting systems, as well as variations in case definitions, limit direct comparisons. Strengthening integrated surveillance of human and animal cases is essential to characterize the magnitude and distribution of the outbreak, detect geographical changes, and guide prevention and response measures (4, 21).

Surveillance and epidemiological investigation

Surveillance and epidemiological investigation of *C. hominivorax* myiasis should focus on early detection, immediate reporting, and characterization of cases to guide prevention and control measures. It is recommended that these activities be strengthened in coordination with animal health services through the following actions:

- Raise awareness among staff in primary care, emergency departments, dermatology, surgery, infectious diseases, otolaryngology, ophthalmology, dentistry, and services that serve rural populations to consider myiasis when they encounter wounds, lesions, or mucous membranes containing larvae or a sensation of movement—especially when accompanied by pain, discharge, bleeding, a foul odor, or unusual progression.
- Establish or reinforce the immediate reporting of suspected or probable cases in accordance with national surveillance mechanisms and ensure immediate communication with animal health services when a probable case is identified.
- Apply operational definitions.
 - As a guideline, **a suspected case** may be defined as a person of any age with a skin lesion, traumatic or surgical wound, ulcer, mucous membrane, or natural body cavity showing visible or reported presence of larvae consistent with myiasis, whether or not accompanied by pain, foul odor, bleeding, discharge, rapid growth, local inflammation, or signs of secondary infection. One should also consider the person's place of origin, residence, occupation, or recent

travel to areas with a known or suspected presence of New World screwworm in animals or humans.

- Conduct an epidemiological investigation of each suspected or confirmed case, including the date of onset and detection, probable place of exposure, residence, travel or recreational activities outdoors, occupation, contact with animals, history of injuries, trauma, or procedures, location and characteristics of the lesion, underlying medical conditions, treatment, hospitalization, course of illness, and outcome.
- Characterize cases by person, time, and place. Analyze the distribution by epidemiological week, age, sex, comorbidities, anatomical location, severity, hospitalization, deaths, and geographic area, and identify clusters or changes in geographic distribution.
- In areas with known circulation, consider enhanced surveillance strategies, including active case finding in health care facilities, wound care services, long-term care institutions, and communities with barriers to care access (4, 22, 24).

Diagnosis and laboratory confirmation

Clinical diagnosis is based on the presence of larvae in a wound or body cavity. Because different species of Diptera can cause myiasis and some larvae share similar characteristics, confirmation of *C. hominivorax* requires species identification using morphological, molecular, or other methods established by the national authority. The morphology of the larvae—including their pigmented tracheal trunks and posterior spiracles—allows them to be distinguished from other species (4, 21, 22).

- Collect a representative sample of larvae; whenever possible, include specimens of different sizes and obtained from different areas of the lesion.
- Handle, identify, store, and transport samples in accordance with national procedures and accompanied by the corresponding clinical and epidemiological information.
- Coordinate identification with medical entomology, public health, or animal health laboratories that have taxonomic capabilities. Maintain referral mechanisms for confirming initial cases and cases detected in locations with no recent history of the disease.
- Document the identified species, the larval stage when possible, the anatomical location, the date of collection, and the link to the reported case.
- Do not delay the removal of larvae or the management of the lesion while awaiting taxonomic confirmation (4, 21, 22).

Clinical management and treatment

The goal of clinical and therapeutic management is to remove all larvae present in the lesion, limit tissue destruction, relieve symptoms, promote healing, and prevent or treat complications. The approach should be tailored to the location, depth, and extent of the infestation, as well as the patient's clinical condition (4, 22).

- Assess the extent of the lesion, the visible number of larvae, the presence of cavities or deep tunnels, necrosis, bleeding, secondary bacterial infection, systemic involvement, and comorbidities. Consider imaging studies when deep involvement or cavities are suspected.

- Carefully remove the larvae using appropriate instruments, irrigate the lesion, and debride necrotic tissue when indicated. Extensive, deep, or hard-to-reach infestations may require surgical exploration and debridement. Store specimens in accordance with national procedures and avoid releasing or discarding live larvae into regular trash, drains, soil, or the environment.
- Provide analgesia and evaluate the need for tetanus prophylaxis based on the characteristics of the lesion and national guidelines. Administer antimicrobials when there is clinical evidence of secondary bacterial infection; their routine use is not recommended in the absence of infection.
- Evidence regarding systemic antiparasitic treatment is limited. Some national protocols include ivermectin as an adjunctive treatment; however, the available comparative evidence is insufficient to establish its additional benefit. When its use is provided for by national regulations, it does not replace the complete removal of larvae or proper care of the wound.
- Urgently refer cases involving ocular or orbital, nasal or paranasal sinus, oral, otic, genital, airway, or deep tissue involvement; extensive tissue destruction; significant bleeding; systemic compromise; or the inability to completely remove the larvae.
- Re-examine the lesion to detect residual or newly hatched larvae and continue follow-up until complete removal is confirmed, the secondary infection has resolved, and the wound is healing properly (4, 22, 25).

Prevention in the community and health care settings

Prevention of *C. hominivorax* myiasis in the community and health care settings should focus on proper wound care, protection against flies, and early recognition of signs of infestation, with special attention to individuals who have difficulty with self-care. The following actions are recommended:

- Promote proper wound cleansing, keep wounds clean and covered, and monitor their progress until healing is complete. Individuals who have difficulty with self-care should receive support from family members, caregivers, or health care services.
- Recommend immediate medical attention if larvae are present, or if there is a sensation of movement, persistent pain, discharge, bleeding, a foul odor, or deterioration of a wound. Avoid unsupervised removal when the lesion involves cavities or sensitive structures.
- In areas where *C. hominivorax* is present, strengthen educational efforts targeting rural communities, livestock workers, animal owners, and caregivers of older adults, immobilized individuals, or patients with chronic wounds.
- In hospitals and long-term care facilities, maintain protocols for wound healing and dressing, patient hygiene, periodic inspection of wounds, physical barriers against flies, proper waste management, and environmental control.
- Train caregivers and health care personnel to recognize early signs, especially in people who cannot communicate symptoms or protect their wounds. Patient isolation is not required, as there is no person-to-person transmission; standard precautions for wound care apply (4, 22).

Public Health Actions

The circulation of *C. hominivorax* affects domestic animals, livestock, wildlife, and humans. Therefore, human, animal, and environmental data must be analyzed in an integrated manner using the One Health approach to identify areas of circulation, routes of spread, and exposed populations (24, 26).

- In the event of a human case, coordinate with animal health authorities to investigate infestations in animals at the likely site of exposure and strengthen joint surveillance. Similarly, the detection of animal cases should trigger notification to health services in the affected area.
- Promote the timely exchange of information among human health, animal health, and environmental agencies, especially in border areas and regions where the parasite has recently spread.
- Establish formal mechanisms for coordination and data exchange among the ministries of health, agriculture, and the environment; veterinary services; laboratories; and border authorities.
- Integrate analyses of human cases with reports of infestations in animals, entomological surveillance when available, animal movements, and information from neighboring territories.
- Ensure the detection, treatment, and follow-up of infested animals; strengthen clinical inspection, wound treatment, and national measures governing the movement of animals from affected areas.
- Coordinate fly population control strategies, including the sterile insect technique when appropriate, with sustained surveillance, response capacity, and cross-border cooperation (24, 26).

Risk Communication

Risk communication regarding *C. hominivorax* myiasis should be clear, objective, and free of judgment or stigmatization, and should provide information on routes of exposure, warning signs, wound care and dressing, and available services for diagnosis and treatment. Human and animal health authorities should align their messages, collaborate with health services, community organizations, local authorities, livestock producers, and animal owners, and adapt materials to the languages, practices, and communication channels of affected communities. They should also provide regular updates on the epidemiological situation and prevention measures, clearly distinguish between human cases and animal infestations, and explain the limitations of the available data. Clinical or social conditions that hinder self-care should be addressed through support and timely access to services, promoting early seeking of care for wounds that are painful, oozing, foul-smelling, or where movement is felt or larvae are visible (27).

References

1. World Health Organization. ICD-11 for mortality and morbidity statistics: cutaneous myiasis. Geneva: WHO; 2026 [cited 21 September 2026]. Available from: <https://icd.who.int/browse/2026-01/mms/en#1342682193>.
2. Pan American Health Organization. Miasis por larvas de *Cochliomyia hominivorax*. Washington, D.C.: PAHO; 2026 [cited 21 September 2026]. Available from: <https://www.paho.org/es/temas/miasis-por-larvas-cochliomyia-hominivorax>.
3. Acha PN, Szyfres B. Zoonoses and Communicable Diseases Common to Humans and Animals. 3rd ed. Vol. III, Parasitic Diseases. Scientific and Technical Publication No. 580. Washington, D.C.: PAHO; 2003. Available from: <https://iris.paho.org/handle/10665.2/711>.
4. Gobierno de México. Secretaría de Salud. Manual de procedimientos estandarizados para la vigilancia epidemiológica de miasis por *Cochliomyia hominivorax* en el humano. Mexico City: Ministry of Health; 2025. Available from: https://www.gob.mx/cms/uploads/attachment/file/977291/Manual_Miasis_por_Cochliomyia_Hominivorax_en_Humano_2025.pdf.
5. World Organization for Animal Health. New World screwworm continues to spread: WOA calls for strong collaboration across livestock sectors and borders. Paris: WOA; 2025 [cited 21 September 2026]. Available from: <https://rr-americas.woah.org/en/news/new-world-screwworm-continues-to-spread-woah-calls-for-strong-collaboration-across-livestock-sectors-and-borders/>.
6. United States Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services, National Preparedness and Incident Coordination. New World Screwworm Ready Reference Guide: Maps & Timelines. Riverdale: USDA APHIS; 2016. Available from: https://www.aphis.usda.gov/sites/default/files/screwworm_rrg.pdf.
7. Belize Agricultural Health Authority. New World screwworm (*Cochliomyia hominivorax*) laboratory confirmation records, Belize, 2025–2026. Belmopan: BAHA; 2026. Unpublished.
8. Ministry of Health & Wellness. Guidelines for the surveillance and treatment of New World screwworm (*Cochliomyia hominivorax*). Belmopan: Government of Belize; 2025. Unpublished.
9. Ministry of Health & Wellness, Epidemiology Unit. Belize Health Information System: New World screwworm (*Cochliomyia hominivorax*) surveillance data, 2025–2026. Belmopan: Government of Belize; 2026. Unpublished.
10. Costa Rica International Health Regulations National Focal Point (IHR NFP). Communication received via email on 29 September 2026. San José; 2026. Unpublished.
11. Ministerio de Salud. Lineamiento nacional para la vigilancia de miasis por gusano barrenador en humanos. San José: Ministry of Health; 2024. Available from: https://www.ministeriodesalud.go.cr/index.php/biblioteca-de-archivos-left/documentos-ministerio-de-salud/vigilancia-de-la-salud/normas-protocolos-guias-y-lineamientos/zoonosis/gusano-barrenador/7439-version-April-1_2024-national-guidelines-for-the-surveillance-of-drill-worm-myiasis-in-humans/file.
12. El Salvador International Health Regulations National Focal Point (IHR NFP). Communication received via email on 29 September 2026. San Salvador; 2026. Unpublished.

13. Gobierno de El Salvador, Ministerio de Salud. Lineamientos técnicos para la atención integral de la miasis causada por gusano barrenador en humanos. San Salvador: MINSAL; 2025. Available from: https://asp.salud.gob.sv/regulacion/pdf/lineamientos/lineamientostecnicosparalaatencionintegraldelamiasiscausadaporgusanobarrenadorenhumanos-Acuerdo-Ejecutivo-727-15012025_v1.pdf.
14. Guatemala International Health Regulations National Focal Point (IHR NFP). Communication received via email on 29 September 2026. Guatemala City; 2026. Unpublished.
15. Honduras International Health Regulations National Focal Point (IHR NFP). Communication received via email on 29 September 2026. Guatemala City; 2026. Unpublished.
16. Secretaría de Salud de Honduras. Lineamientos para la vigilancia epidemiológica, manejo clínico y prevención de miasis por gusano barrenador en humanos [LN59:2024]. Tegucigalpa: SESAL; 2024.
17. Mexico International Health Regulations National Focal Point (IHR NFP). Communication received via email on 1 October 2026. Mexico City; 2026. Unpublished.
18. Panama International Health Regulations National Focal Point (IHR NFP). Communication received via email on 29 September 2026. Panama City; 2026. Unpublished.
19. United States of America (the) International Health Regulations National Focal Point (IHR NFP). Communication received via email on 29 September 2026. Washington, D.C.; 2026. Unpublished.
20. United States Department of Health and Human Services, United States Department of Agriculture. HHS and USDA Confirm a Single Traveler-Associated Case of New World Screwworm: Precautionary and Proactive Surveillance Ongoing. Washington, D.C.: HHS; 2025 [cited 5 October 2026]. Available from: <https://www.hhs.gov/press-room/hhs-cdc-usda-traveler-associated-screwworm-case-surveillance.html>.
21. United States Centers for Disease Control and Prevention. DPDx: New World screwworm. Atlanta: CDC; 2025 [cited 21 September 2026]. Available from: <https://www.cdc.gov/dpdx/newworldscrewwormmyiasis/index.html>.
22. United States Centers for Disease Control and Prevention. Clinical overview of New World screwworm myiasis. Atlanta: CDC; 2026 [cited 21 September 2026]. Available from: <https://www.cdc.gov/myiasis/hcp/clinical-overview/index.html>.
23. Delgado-Cuellar OM, Mosso-González C, Castañeda-Gómez J, Vera-Maloof FZ, Navarro-Fuentes KR, Mejía-Navarro ES, et al. Human myiasis resulting from the reemergence of the *Cochliomyia hominivorax* screwworm, Mexico, 2025–2026. *Emerg Infect Dis*. 2026;32(10). Available from: https://wwwnc.cdc.gov/eid/article/32/10/26-1235_article.
24. Pan American Health Organization. Belize Strengthens Surveillance and Clinical Response to the New World Screwworm through the One Health Intersectoral Approach. Washington, D.C.: PAHO; 2026 [cited 21 September 2026]. Available from: <https://www.paho.org/en/news/20-2-2026-belize-strengthens-surveillance-and-clinical-response-new-world-screwworm-through>.
25. Hernández-Peláez DK, De la Mora-López CF, Vega-Dovalí M. Reporte de caso de miasis humana causada por *Cochliomyia hominivorax* en México. *Rev Med Inst Mex Seguro Soc*. 2026;64(5):e6879. Available from: https://revistamedica.imss.gob.mx/index.php/revista_medica/article/view/6879.

26. World Organization for Animal Health. New world screwworm (*Cochliomyia hominivorax*). Paris: WOAH; [date unknown] [cited 21 September 2026]. Available from: <https://www.woah.org/en/disease/new-world-screwworm-cochliomyia-hominivorax/>.
27. Pan American Health Organization. Risk and Outbreak Communication. Washington, D.C.: PAHO; 2026 [cited 21 September 2026]. Available from: <https://www.paho.org/en/topics/risk-and-outbreak-communication>.

Other materials of interest:

- Molina-Flores B; Tortosa F; Chancey RJ; Cantey P; Fox M; Gainor K, et al. Tracking human New World screwworm in the Americas: burden, spread, and knowledge gaps. Rev Panam Salud Publica. 2026;50:e100. Available from: <https://doi.org/10.26633/RPSP.2026.100>