KS-HAN



Date: September 5, 2025

From: Kansas Department of Health and Environment – Division of Public Health and Kansas Department of Agriculture – Division of Animal Health

To: Kansas Health Care Providers, Local Health Departments, and Emergency Management RE: Increased New World screwworm activity and potential for travel-associated cases

Summary

- New World screwworm (NWS) continues to infect animals in Central America and Mexico. As of August 25, 2025, the U. S. Centers for Disease Control and Prevention (CDC) reported to state partners that more than 111,000 animal cases and more than 680 human infections have occurred in the outbreak area.
- The Kansas Department of Agriculture has been working closely with the U. S. Department of Agriculture (USDA) to develop rapid, effective reporting and response plans should an animal in Kansas be diagnosed with NWS.
- Humans can become infected with NWS when they travel to endemic or outbreak areas.
 Healthcare providers should be aware of the possibility of travel-related cases of NWS in
 Kansas residents and report any suspected cases to the Kansas Department of Health
 and Environment immediately.

Situation

There is an ongoing outbreak of New World screwworm in Central America and Mexico. New World screwworm is the fly *Cochliomya hominvorax*, which lays its eggs on wounds of animals and people. The larvae that hatch only feed on **living** tissue and cause severe tissue destruction and, ultimately, death if untreated. These larvae are primarily an animal health concern; however, they will feed on any warm-blooded animal, therefore humans are also at risk of infection. A travel-associated case of New World screwworm myiasis was recently identified in a Maryland citizen returning from El Salvador, a country currently affected by the NWS outbreak. In response to the detection, the USDA is conducting precautionary and proactive surveillance for NWS within a 20-mile radius of the affected area. To date, all traps have been negative and no secondary human or animal cases have been identified. There is no ongoing risk to the general public as a result of this case.

Background

New World screwworm is a fly that produces parasitic larvae that feed on live tissue and cause myiasis. This parasite was once endemic in the U.S. but was eradicated in 1966. Over the following decades, an intensive campaign was launched, using the sterile insect technique, to eliminate the fly from Mexico and Central America. The sterile insect technique is a process that includes raising male flies, treating them with a low dose of radiation to render them sterile, and then releasing those sterile flies in areas where the wild flies are present. Over time, as female flies mate with the sterile male flies, populations decline and eventually the parasite is eliminated. This was paired with active surveillance of infestation in domestic and wild animals, and rapid intervention and treatment of affected animals, ensuring the parasite did not spread through animal movement activities. Through these activities, a biological barrier was created at the Darien Gap in Panama in 2006.

Over the past three years, we have seen a slow breakdown in the previously established biological barrier, starting with an outbreak in Panama in August 2022. Since then, cases have been reported in Costa Rica, Nicaragua, Honduras, Guatemala, Mexico, El Salvador, and Belize. The continued northward movement of the parasite has resulted in nearly 50,000 cases of screwworm reported to the Commission for the Eradication and Prevention of Screwworm (COPEG) in a variety of animal species, including humans.

The USDA has been partnering with affected countries to respond to this outbreak and has developed a multi-pronged strategy to protect the health and safety of the U.S. livestock population and re-establish the biological barrier in the Darien Gap. The pillars of eradication being employed are use of the sterile insect technique, enforcement of animal movement controls, and increasing surveillance, outreach, and education in outbreak areas. As part of this strategy, USDA Secretary, Brooke Rollins, closed the U.S.-Mexico border ports to livestock trade because of a detection of NWS 370 miles south of the U.S.-Mexico border.

In a coordinated approach with USDA, CDC has been working to raise awareness of the possibility of travel-associated human cases of NWS myiasis in the U.S. and conducting specific outreach to border states to develop response plans. Although this is primarily a disease of animals, people can also be infested. People who travel to endemic and outbreak areas, spend time with livestock animals in these areas, sleep outdoors, and who have open wounds, such as from scratches, cuts, insect bites, or recent surgeries are at a greater risk of infection.

Symptoms of NWS myiasis in humans include seeing larvae (maggots) in and around open wounds; unexplained wounds that do not heal or become worse over time; painful wounds or sores; bleeding from sores; feeling the movement of larvae in and around the wound, in the nose, mouth, or eyes; and a foul-smelling odor coming from the site of infection. These infestations are typically very painful; however, depending on location, larvae may not be readily visible. Secondary bacterial infections and systemic illness can also occur.

Treatment of NWS in humans requires the complete, physical removal of all larvae. Depending on the location of the larvae, this may require surgical removal. All larvae must be disposed of in a leak-proof container with 70% ethanol. If ethanol is not available, 70% or greater isopropanol or 5-10% formalin can be used, though are not preferred. Retain all larvae for identification and diagnosis. Never dispose of larvae in the trash. Improper disposal of larvae can lead to the establishment of a local fly population when those larvae pupate and turn into adults. This would pose a serious risk to domestic and wild animals and would require a large-scale, coordinated response by local, state, and national partners to conduct human, animal, and environmental surveillance to eradicate the flies.

Infections can be prevented by following insect precautions when traveling, plus keeping any open wounds clean and covered. Travelers to endemic areas should wear loose-fitting, long-sleeved shirts and pants, use an <u>EPA-registered insect repellent</u> on exposed skin, treat clothing and gear with 0.5% permethrin, and sleep indoors or in rooms with screens when possible. Ivermectin is not recommended to treat or prevent New World screwworm in humans.

- 1. NWS is a four-hour reportable condition in Kansas. If a human case of NWS is suspected or diagnosed, contact the KDHE 24/7 Epidemiology Hotline at 877-427-7317 (option 5) immediately to coordinate sample identification and submission.
- 2. If a person presents with compatible clinical signs of myiasis, remove all larvae and place in a leak-proof container with 70% ethanol. The volume of liquid should be sufficient to fully submerge larvae. Do NOT discard larvae directly into the trash. All larvae should be properly preserved and retained for positive identification through CDC.
- 4. If a patient presents with painful lesions, sensation of movement, and/or malodorous bloody discharge from a wound, AND has recently traveled to an endemic or outbreak area, NWS should be suspected. Larvae may not always be visible. Infestations can cause extensive tissue destruction and may result in secondary bacterial infections causing fever, chills, or systemic illness.
- 5. For reporting, testing, or treatment guidance, contact the KDHE Epidemiology Hotline at 877-427-7317 (option 5).
- 6. CDC consultation is available to healthcare providers by calling 404-718-4745 during regular business hours or emailing <u>parasites@cdc.gov</u>. After-hours inquires can be made by calling the CDC's Emergency Operations Center at 770-488-7100.

Local Health Department Actions Requested

- 1. Provide education to local healthcare providers regarding the current NWS outbreak and the risk to travelers to endemic and outbreak areas. Providers should specifically be educated on prompt reporting to public health authorities and proper disposal of NWS larvae. These larvae should NEVER be thrown away, as they can mature and be a risk for establishing a local population of flies.
- 2. Educate citizens who are traveling to endemic or outbreak areas about NWS. Advise them to take appropriate prevention measures, especially insect bite precautions, covering any open wounds, and sleeping indoors.
- 3. Any suspect animal cases should be reported immediately to the Kansas Department of Agriculture at 785-564-6601. NWS in animals is a reportable condition and must be reported to the <u>KDA Division of Animal Health</u>.

For more information:

For more information on human health actions regarding New World screwworm, visit CDC's New World screwworm website at https://www.cdc.gov/new-world-screwworm/about/index.html to learn more about signs and symptoms of myiasis, treatment, and prevention while traveling abroad. The CDC also has additional information for healthcare providers available at https://www.cdc.gov/new-world-screwworm/hcp/clinical-overview/index.html and a clinician outreach webinar at https://www.cdc.gov/coca/hcp/trainings/resurgence-new-world-screwworm.html.

For updates and information on the current situation in Central America and Mexico regarding animal health and case detections, visit the USDA NWS Outbreak webpage at https://www.aphis.usda.gov/livestock-poultry-disease/cattle/ticks/screwworm/outbreak-central-america.

References:

- 1. New World Screwworm Outbreak in Central America
- 2. New World Screwworm Story Map | Animal and Plant Health Inspection Service
- 3. New World Screwworm | Department of Agriculture
- 4. <u>COPEG Comisión Panamá Estados Unidos para la Erradicación y Prevención del</u> <u>Gusano Barrenador del Ganado</u>
- 5. About New World Screwworm | New World Screwworm | CDC
- 6. Clinical Overview of New World Screwworm | New World Screwworm | CDC