

# REPORT DISEASE AND HEALTH HAZARD NEWS OF INTEREST ALONG THE BORDER

December 12 - 18, 2024

## WEEKLY EVENTS

- According to data from the Pan American Health Organization (PAHO), Central and South America are experiencing a severe dengue fever outbreak this year. Over 12.6 million infections and 7,700 deaths have been reported. More than 70% of dengue-related deaths in Guatemala were children. In Mexico, Costa Rica, and Paraguay, more than one-third of severe cases occurred in children under the age of 15. Children and individuals with pre-existing health conditions are more susceptible to dengue infection and tend to develop more severe symptoms compared to others. This outbreak is the largest recorded in the region since statistics began in 1980. The countries with the highest number of cases and fatalities are Brazil, Argentina, and Colombia in South America, and Mexico in North America. In response, several countries in Central and South America have begun distributing dengue vaccines. Honduras, plans to start its vaccination program in 2025. PAHO has issued a statement urging countries in the Americas to collaborate intensively to curb the spread of the disease.
- In California, H5N1 avian influenza has been detected in raw milk across several areas, prompting recalls of dairy products distributed to various locations. While it remains unclear if consuming raw milk is a direct cause of human infections, many regions have heightened surveillance for potential transmission through raw milk consumption. Additionally, cases of cats consuming H5N1-contaminated raw milk and dying highlight the risk of cross-species transmission. Over the past month, the virus has been reported in animals and the environment, including outbreaks in dairy cattle, poultry, wild birds, and zoo animals. In Arizona, H5N1 has been detected in cheetahs, mountain lions, and other animals. High levels of the virus have also been found in wastewater, indicating significant environmental contamination. This underscores the need for vigilance in monitoring and managing the spread of H5N1 in both animal and human populations.

## NOROVIRUS: A COMMON CAUSE OF ACUTE DIARRHEA IN CHILDREN

The National Center for Disease Control and Prevention of the People's Republic of China has reported an outbreak of norovirus that has affected several areas across the country since October. Most outbreaks have occurred in schools. The epidemic has now reached its peak, prompting government agencies to issue guidelines to warn the public about preventive measures. These emphasize proper hygiene practices and recommend that infected individuals isolate themselves to prevent the spread of the virus. In Thailand, the most recent outbreak was reported on November 6, 2024, in two schools in Rayong Province. The outbreak was linked to a joint sports event held on December 16, 2024, with a total of 1,436 cases reported, including 1,418 students and 18 teachers and staff. The Department of Health identified the cause as norovirus contamination in the water and ice consumed during the sports event week.

Norovirus infects and causes inflammation in the gastrointestinal system. It affects both children and adults, but due to lower immunity, children are more commonly affected. The incubation period of the virus is approximately 12–48 hours after exposure. Norovirus spreads quickly and easily, causing symptoms similar to food poisoning, such as nausea, vomiting, diarrhea, and in some cases, fever and body aches. The virus spreads through the gastrointestinal tract via contaminated food and beverages, such as drinking water, ice, fresh fruits and vegetables, or oysters. It can also spread through direct contact with an infected person's feces or vomit or by touching surfaces contaminated with the virus. In children, transmission may occur through contact with contaminated toys or objects, followed by hand-to-mouth contact. Norovirus thrives in cooler weather, making outbreaks more common in winter, particularly in crowded places such as schools, childcare centers, hotels, and hospitals. The virus can remain in a patient's body for weeks and can be detected in stool samples even after symptoms have subsided. It is highly resilient, resistant to heat, cold, and many disinfectants, and can persist on surfaces for extended periods, making it difficult to eradicate. Currently, there are no approved vaccines or specific treatments for norovirus. The best preventive measures involve practicing good hygiene, maintaining cleanliness, and ensuring environmental sanitation, especially concerning food and water consumption. Proper hygiene and cleanliness remain the most effective ways to prevent norovirus infection.



## RECOMMENDATIONS FOR OFFICIALS

Officials have advised health volunteers to coordinate with public health officials and relevant local agencies to disseminate information about the domestic and international norovirus outbreaks. This includes educating residents, schools, and childcare centers about the causes of the disease, transmission routes, symptoms, and basic preventive measures.

Individuals and institutions should practice and promote personal hygiene measures such as regularly washing hands thoroughly with soap and water, especially after using the restroom and before preparing food, washing fruits and vegetables properly before consumption, and washing hands before eating. Childcare centers should clean children's toys regularly and staff should wash hands thoroughly with soap and water after changing each child's diaper. Infected individuals should refrain from preparing food for others. Students infected with norovirus should stay home and avoid attending school for at least 48 hours after symptoms improve to prevent spreading the virus. Food-related establishments should emphasize proper personal hygiene, such as wearing gloves while preparing food, ensure the cleanliness and safety standards of raw materials, products, and the food preparation process. Water, ice, and beverages should meet quality standards and undergo regular inspections by relevant authorities. These measures aim not only to prevent diarrhea caused by norovirus but also to reduce the risk of infections from other pathogens.

## INFORMATION COLLECTED AND ANALYZED BY

Multisectoral Capacity Development Program for Public Health Emergency Detection and Response in Border Areas

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## Sources

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