



DATE:	March 27, 2025
TO:	Health Alert Network
FROM:	Debra L. Bogen, MD, FAAP, Secretary of Health
SUBJECT:	Dengue Virus Infections Among Travelers in Pennsylvania
DISTRIBUTION:	Statewide
LOCATION:	Statewide
STREET ADDRESS:	n/a
COUNTY:	n/a
MUNICIPALITY:	n/a
ZIP CODE:	n/a
This transmission is a “Health Advisory” which provides important information for a specific incident or situation and may not require immediate action.	

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SUMMARY

- Dengue virus transmission remains high in the Americas region, including in the U.S. territories of Puerto Rico and the U.S. Virgin Islands. Spring and summer travel coincide with the peak season for dengue in many countries, increasing the risk of travel-associated cases.
- Health care providers should have a heightened clinical suspicion for dengue virus infections in persons with clinically compatible symptoms, particularly with a travel history to endemic areas.
- For questions, please call your local health department or DOH at 1-877-PA-HEALTH.

Global incidence of dengue in 2024 was the highest on record with over 13 million cases of dengue reported in North, Central, and South America and the Caribbean. In the U.S., public health authorities in Puerto Rico and U.S. Virgin Islands have declared dengue outbreaks. Local transmission of dengue was also reported in 2024 in California, Florida, and Texas. Although no locally transmitted dengue cases have been identified in Pennsylvania, 2024 had the most recorded travel related dengue cases (65).

The Pennsylvania Department of Health (DOH) reminds health care providers to consider the diagnosis of dengue virus (DENV) infection among people with fever who have been in [areas with frequent or continuous dengue transmission](#) within 14 days before illness onset. Order appropriate diagnostic tests for acute DENV infection and ensure timely reporting of dengue cases (reportable within 24 hours of diagnosis in Pennsylvania). Promote mosquito bite prevention measures for people traveling to and returning from dengue endemic areas and in general to prevent mosquito transmitted infections.

EPIDEMIOLOGY OF DENGUE VIRUS INFECTIONS

[Dengue](#) is caused by four distinct but closely related dengue viruses or serotypes (DENV-1, -2, -3, and -4). Infection with one DENV usually induces lifelong immunity to that serotype and short-term immunity to other DENV serotypes for months to years. Repeat infections with different serotypes can occur, particularly in DENV endemic areas. Approximately one in four DENV infections are symptomatic. Infection with any DENV serotype can cause severe illness, particularly in infants aged ≤ 1 year, pregnant women, adults aged ≥ 65 years, people with [certain medical conditions](#), and people with previous DENV infections.

Globally, dengue cases have [increased substantially in the last 5 years](#), with the most pronounced increases occurring in the Americas. [In the Americas region](#), 4.6 million cases and 2,400 deaths were reported in 2023, followed by 13 million cases and 8,200 deaths in 2024. As of March 6, more than 760,000 dengue cases have been reported in 2025, which is a 15% increase compared to the previous 5-year average. Epidemics in the Americas region are expected to increase both travel-associated cases and the possibility of local transmission in the continental United States in areas with competent mosquito vectors. Spring and summer travel in the United States overlaps with the months of increased seasonal dengue activity in many countries.

All four DENV serotypes were reported among travelers returning to the United States in 2024. DENV-3 was the most common serotype identified in 2024, but the proportion of cases caused by DENV-4 has been increasing in recent months. During October 2024–January 2025, DENV-4 was identified in 50% of travel-associated dengue cases among cases with DENV serotype available. In addition, [DENV-3 re-emerged after a prolonged absence in multiple countries](#) across the Americas region during 2024 and 2025. Introductions of new serotypes have been associated with increasing size and frequency of dengue outbreaks, as well as more severe clinical outcomes in patients with previous DENV exposure.

In Puerto Rico, reported dengue cases have remained above the outbreak threshold since February 2024. A public health emergency was declared in March 2024 and remains active. In 2024, [6,291 cases were reported](#), more than 52% (3,292) required hospitalization, and there were 13 deaths. As of March 7, 2025, 936 cases have been reported, representing a 113% increase compared to the same period in 2024.

In the U.S. Virgin Islands, a dengue outbreak was declared in August 2024 and remains active. A total of 208 locally acquired cases were identified in 2024, and 30 in 2025 as of March 7, 2025.

In the continental United States in 2024, locally acquired cases were reported in [Florida](#) (91), California (18), and Texas (1). A record number of dengue cases were identified among U.S. travelers (3,483 cases), which is an 84% increase compared to the previous year. This trend is expected to continue with increased dengue activity in endemic areas in 2025. The highest numbers of travel-associated cases in 2024 were reported in [Florida](#) (1,016) followed by [California](#) (648), and New York (327). In PA, there were 65 recorded traveled-related cases in 2024.

RECOMMENDATIONS FOR HEALTH CARE PROVIDERS

- Take a thorough travel history for patients presenting with acute febrile illness, as initial clinical presentation is similar among many vector-borne diseases such as [dengue](#), [Zika](#), [chikungunya](#), and [Oropouche](#).
- Advise patients who plan to travel to take steps to prevent mosquito bites during travel and for 3 weeks after returning, especially if traveling to an area with [frequent or continuous dengue transmission](#).
- Continue to have increased suspicion of dengue among people with fever who have been in areas with [frequent or continuous dengue transmission](#) within 14 days before illness onset.

DIAGNOSIS OF DENGUE VIRUS INFECTIONS

Patients with [symptoms](#) compatible with dengue can be [tested](#) with both molecular and serologic diagnostic tests. All patients with suspected DENV infection should be tested with RT-PCR (i.e., a nucleic acid amplification test (NAAT)) or a NS1 antigen test, and also with IgM antibody test to confirm DENV infection. These tests can be considered regardless of the symptom onset date, although the test sensitivity of RT-PCR and NS1 antigen tests decrease after the first 7 days. If the patient tests negative for dengue, consider testing for other infectious diseases that might be occurring in the location where the patient was likely exposed. Zika, chikungunya, and Oropouche can all have similar clinical signs and symptoms and often circulate in the same areas as dengue. IgG detection by enzyme-linked immunosorbent assay (ELISA) in a single serum sample should not be used to diagnose a patient with acute dengue because it does not distinguish between current and previous DENV infection.

Specimens collected from patients with suspected DENV can be submitted to the DOH Bureau of Laboratories (BOL). Instructions for submitting specimens can be found at [Arbovirus testing form](#).

Here is the full CDC Health Advisory from June 25, 2024 titled "[Increased Risk of Dengue Virus Infections in the United States](#)." and the CDC Health Update from March 18, 2025 titled "[Ongoing Risk of Dengue Virus Infections and Updated Testing Recommendations in the United States](#)."

For questions, please call your local health department or DOH at 1-877-PA- HEALTH.

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This information is current as of March 27, 2025, but may be modified in the future.