Risk Assessment

Dengue in the United States

Summary: Dengue Scenario-Based Human Health Risk Assessment for the United States
Published November 2, 2026

Currently, the Center for Outbreak Response Innovation (CORI) judges that the ongoing dengue situation in the US is within Scenario 2, *meaning there is an increase of locally acquired cases in areas with known endemic spread, like Puerto Rico and American Samoa, as well as an increase in imported cases across the US and globally.*

This judgment is based on the continued local transmission of dengue in Florida, as well as travel-associated cases in 53 states or territories in 2024 and 2025. **As of October 28, 2026**, the US Centers for Disease Control and Prevention (CDC) reports 2,569 dengue cases, 1,819 of which have been locally acquired in 2026. Hillsborough County in Florida has declared and then extended a temporary state of emergency to November 5th in response to a rise in locally acquired dengue cases, now at 436 across the state. One locally acquired case was detected in Virginia on August 4, 2026, but all other reports of local transmission in 2026 have been in the states and territories with a history of endemic transmission. However, the increase of travel-associated cases does increase the risk of local transmission. In 2025 there were 5,374 reported cases reported, with 4,065 locally acquired cases.

See the detailed risk assessment analysis beginning on the next page.

	Risk to travelers	Risk to children	Risk to people who spend significant time outdoors	Risk to vulnerable populations	Risk to the US general public
Scenario 2 – Increase in locally acquired cases in endemic areas of the US	**Moderate**	**Low**	**Low**	**Low**	**Low**

Our **confidence** in these risk scores is **moderate** given the current level of available information for each of these factors, including surveillance data, and known transmission dynamics. The moderate confidence is primarily due to the comprehensiveness of the surveillance measures and reporting at this time, as well as a CDC notice of delays in dengue data and reporting on the dengue data dashboard.

To decrease the risk to human health in the current situation, CDC recommends:

- Preventing mosquito bites by using insect repellent, wearing full-coverage, loose clothing when in outside environments, and controlling mosquito populations around the home, such as by clearing standing water.
- Preparing for travel to dengue-endemic areas by visiting a travel clinic, reviewing country-specific travel recommendations, and packing insect repellent and acetaminophen.

©2026 The Johns Hopkins University. All rights reserved.

Dengue Scenario-Based Human Health Risk Assessment for the United States
Center for Outbreak Response Innovation (CORI)
Published November 2, 2026

Background

Dengue virus is the most common and widely transmitted arboviral disease globally, with at least half of the world's population at risk of infection. Global and US-national burden has been growing over recent years, with 500,000 cases reported globally in 2000, and 5.2 million cases reported in 2019. In 2025, the WHO reported 5.4 million cases globally (2.2 million cases laboratory confirmed) and just over 4,000 deaths.

Thus far in 2026, WHO reports 2,515,131 cases globally (859,185 confirmed) and 1,503 deaths, the majority of which have been in Brazil. The increase in dengue cases globally is due to a myriad of factors including a shift in the distribution of dengue-carrying mosquitoes, climate-change-associated weather patterns and increases in heat and humidity, increased levels of movement of people across borders, and political instability, and humanitarian crises. DENV-3 has been the most common serotype detected after a lengthy absence in multiple countries across the Americas.

As of October 28, 2026, the US Centers for Disease Control and Prevention (CDC) reports 2,569 dengue cases, 1,819 of which have been locally acquired in 2026. One locally-acquired case was detected in Virginia on August 4, 2026, but all other reports of local transmission in 2026 have been in the states and territories with a history of endemic transmission.

The CDC reported 3,352 cases for 2023, 10,112 cases in 2024, and 5,374 cases in 2025. In 2025, there were 4,065 locally acquired cases of dengue, the vast majority of which were in Puerto Rico (3,371), and the remaining in American Samoa (565), the US Virgin Islands, (47), Florida (72), California (7), the Northern Mariana Islands (1), and Arizona (2). The remaining 1,309 cases were all associated with travel and span the entirety of the continental US, Alaska, Hawaii, American Samoa, Guam, Puerto Rico, and the Northern Mariana Islands. Historical data suggests that new infections peak in late-August and early-September, and data for 2024 and 2025 show similar trends, though with higher numbers of reported infections. Historical data also show that the virus infects males and females approximately equally and individuals aged 11-19 make up 23-30% of confirmed or probable cases. Most (79%) of 2025 cases with known serotype were identified as DENV-3, 7% as DENV-1, 5% as DENV-2, and 9% as DENV-4. About half (48%) of the total 2025 cases resulted in hospitalization.

©2026 The Johns Hopkins University. All rights reserved.

Dengue in the United States

Current Risk Assessment

CORI judges that the ongoing dengue outbreak is now within Scenario 2, *meaning the virus is infecting individuals via local transmission in known endemic areas, but at higher rates than historical averages, increasing risk to those who spend significant time outdoors and vulnerable populations.*

This judgment is based on the increase in dengue virus cases in endemic regions of the US as well as limited transmission in a non-endemic state. There are currently no new regions of local transmission beyond what has been seen historically in the US, though the overall increase in travel-acquired cases and the wider spread of states that are detecting cases increases the risk of local transmission in the future.

Our **confidence** in these risk scores is **moderate** given the current level of available information for each of these factors, including surveillance data, and known transmission dynamics. The moderate confidence is primarily due to the comprehensiveness of the surveillance measures and reporting at this time, as well as a CDC notice of delays in dengue data and reporting on the dengue data dashboard.

CORI is continuing to monitor and adapt this risk assessment to the evolving changes of the dengue outbreak in the US. Factors that may contribute to a change in this assessment include increased endemic or travel-related cases, increased reports of local transmission in non-endemic areas, or a sharp increase in overall cases beyond what is historically expected.

Dengue Human Health Risk Assessment Scenario Table

	Risk to travelers to endemic areas	Risk to children	Risk to people who spend significant time outdoors	Risk to vulnerable populations	Risk to the US general public
Scenario 1 – Baseline: Historical trends of imported cases onto mainland US	**Low**	**Low**	**Low**	**Low**	**Low**
Scenario 2 – Increase in locally acquired cases in endemic areas of the US	**Moderate**	**Low**	**Low**	**Low**	**Low**
Scenario 3 – Increase in locally acquired cases in new regions of the US	**Moderate**	**Moderate**	**Low**	**Low**	**Low**
Scenario 4 – Dengue endemicity expands to year-round, local transmission continues to expand to new states/territories in the US	**High**	**Moderate-high**	**Moderate-high**	**Moderate-high**	**Moderate**

©2026 The Johns Hopkins University. All rights reserved.

Recommended Actions

To decrease the risk to human health in the current situation, CDC recommends:

- Preventing mosquito bites by using insect repellent, wearing full-coverage, loose clothing when in outside environments, and controlling mosquito populations around the home, such as by clearing standing water.
- Preparing for travel to dengue-endemic areas by visiting a travel clinic, reviewing country-specific travel recommendations, and packing insect repellent and acetaminophen.

Methods

Risk assessment can be very helpful in times of significant uncertainty because it enables structured consideration of complex scenarios, likelihoods, and consequences to inform decisions around policy and operational action, as well as implementation of protective measures and future planning for worst-case scenarios. It is important not to wait for perfect information to estimate potential risk, because decisions must be made even in the absence of plentiful data.

Therefore, the Center for Outbreak Response Innovation (CORI) conducted a scenario-based risk assessment to consider human health risks both now and in potential future scenarios.

The purpose of this document is to consider possible future developments in this outbreak and describe corresponding risks to human populations should a given scenario occur. A risk score is determined for each key population across multiple possible scenarios.

Risk scores are evaluated on a five-point scale, with scores including low, low-moderate, moderate, moderate-high, and high. The confidence in each of these risk level assignments is based on the breadth, depth, and the quality of information available. The overall confidence of each risk score determination is based on a three-point scale, which includes low, moderate, and high.

In each scenario, we consider the risk to four distinct populations: travelers, children, people who spend significant time outdoors, vulnerable populations (eg, those with previous DENV infection, the elderly, children under 9, pregnant people, and people with certain medical conditions) and the US general public.

In determining these risks, we consider several factors, including mosquito-human transmission pathways, human-human transmission pathways (eg, maternal transmission), symptoms and length of viremia, and the 4 co-circulating serotypes of DENV. We also consider disease morbidity and mortality, instances of transmission,

©2026 The Johns Hopkins University. All rights reserved.

the level of testing and reporting to the CDC, and existing processes to reduce mosquito breeding. Other factors include events that could increase transmission (eg, climate change, seasonal trends, increased mosquito lifespan and breeding, etc.), treatments available to humans (none currently available), preventative nonpharmaceutical measures (eg, use of insect repellent, wearing full-coverage clothing, and using window screens), preventative medical countermeasures, and ongoing response operations to address the outbreak.

Scenario Details:

*__Please note:__ We are evaluating the risks to human health should each scenario occur, **not** the relative risk of any one scenario occurring.

Scenario 1 – Baseline: The virus is infecting individuals in known endemic regions of the US (Puerto Rico, USVI, and Florida) at rates consistent with historical values. There are a few travel-related cases across the country but no local transmission beyond endemic areas. Global caseload and infection outcomes (including severe dengue, case fatality, and hospitalization rates) mirrors historical data.

Scenario 2 – Increase in local transmission in endemic areas: The virus is spreading via local transmission within endemic areas at increased rates beyond historical values and there may be sporadic cases of local transmission. There is no increase in travel-related cases throughout the rest of the US. Global caseload, especially local transmission in endemic areas, increases. The likelihood of widespread human infection is low. Population health consequences are low-moderate and the risk for those who spend significant time outdoors and vulnerable populations are low-moderate. Case outcome, including hospitalization rates, increases in areas with endemic transmission but not elsewhere in the US.

Scenario 3 – Sustained transmission in locally acquired cases in new regions of the US: The virus is spreading via local transmission in new regions of the US. Travel-related cases are also increasing. The likelihood of widespread human infection is moderate. Population health consequences are moderate and the risk to those who spend time outdoors and vulnerable populations is moderate. Case outcome, including hospitalization and fatality rates increase.

Scenario 4 – Year-round endemicity and expanded local transmission: Viral transmission now occurs year-round and local transmission continues to expand outside of states and territories that have seen local transmission historically. Global transmission continues to expand, and endemicity period extends in multiple regions. Case outcomes, including severe dengue from second-time infections, hospitalization and fatality rates increase. The likelihood of widespread human infection is moderate-high. Population health consequences are moderate-high and the risk to those who spend time outdoors and vulnerable populations is high.

©2026 The Johns Hopkins University. All rights reserved.

References

1. CDC. Current Year Data (2026). Dengue. September 2, 2026. Accessed September 3, 2026. https://www.cdc.gov/dengue/data-research/facts-stats/current-data.html
2. CDC. Historic Data (2010-2025). Dengue. September 3, 2026. Accessed April 21, 2026. https://www.cdc.gov/dengue/data-research/facts-stats/historic-data.html
3. CDC. Preventing Dengue. Dengue. August 31, 2026. Accessed September 3, 2026. https://www.cdc.gov/dengue/prevention/index.html
4. Virginia Department of Health. VDH Identifies a Locally Acquired Case of Dengue Virus Infection in Northern Virginia Resident. August 4, 2026. Accessed August 18, 2026. https://www.vdh.virginia.gov/clinicians/clinician-letters/vdh-identifies-a-locally-acquired-case-of-dengue-virus-infection-in-northern-virginia-resident/
5. World Health Organization. Dengue. August 21, 2025. Accessed September 3, 2026. https://www.who.int/news-room/fact-sheets/detail/dengue-and-severe-dengue
6. World Health Organization. Global Dengue Surveillance. August 27, 2026. Accessed September 3, 2026. https://worldhealthorg.shinyapps.io/dengue_global/
7. CDC. Increased Risk of Dengue Virus Infections in the United States. October 24, 2025. Accessed September 3, 2026. https://www.cdc.gov/han/2024/han00511.html
8. CDC. Dengue Case Management. 2024. Accessed September 3, 2026. https://www.cdc.gov/dengue/media/pdfs/2024/05/20240521_342849-B_PRESS_READY_PocketGuideDCMC_UPDATE.pdf

The Center for Outbreak Response Innovation is supported through Cooperative Agreement NU38FT000004 between CDC's Center for Forecasting and Outbreak Analytics and Johns Hopkins University's Bloomberg School of Public Health.

©2026 The Johns Hopkins University. All rights reserved.