



NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

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Date: 17 July 2024
To: North Carolina Local Health Departments
From: Erica Wilson, MD, Medical Epidemiologist
Subject: Dengue and Malaria awareness and preparation

Introduction

Local Health Departments (LHDs) in NC need to be prepared for an increase in travel associated dengue cases, and possible local transmission of malaria.

Dengue

More [travel associated dengue cases](#) have already been reported in 2024 than the average annual number for the past five years. Dengue is transmitted to people from infected mosquitoes, which become infected by feeding on viremic people. Local transmission of dengue in NC is unlikely as the primary vector (*Ae. aegypti*) is not known to be present in our state. *Aedes albopictus*, although common in populated areas in NC, is a less efficient vector and unlikely to produce sustained local transmission.

Malaria

In the summer of 2023, local transmission of malaria was [identified in four states](#). Malaria is historically the most reported mosquito borne disease in NC. While transmission in NC was common until the 1940s, all cases now are associated with NC residents becoming infected while travelling outside the state. Malaria is transmitted to people from infected mosquitoes, which become infected by feeding on infected people. Local transmission of malaria in NC is possible as the mosquito vector (*Anopheles spp.*) is present throughout the majority of our state.

Actions for LHDs

For dengue, promptly investigate all reported cases. Verify appropriate [diagnostic testing](#) has been performed, obtain a complete travel history within 14 days prior to the onset of illness, and consult the communicable disease branch with any questions. If the patient has not travelled outside NC or the continental US in the 14 days preceding illness onset contact the Communicable Disease Branch (CDB) epidemiologist on call (919-733-3419) **immediately**.

For malaria, promptly investigate all reported cases. Verify appropriate [diagnostic testing](#) has been performed. It is important to determine the species of malaria that is infecting the patient. If the species cannot be determined from the lab report, request blood smear microscopy, or PCR testing that speciates the parasite. Obtain a complete travel history within 30 days prior to the onset of illness, verify adherence to the [prophylactic regimen](#). Collection of this information is essential to ensure effective travel and prophylaxis recommendations. If the patient has not travelled outside NC or the continental US in the 30 days preceding illness onset contact CDB epidemiologist on call (919-733-3419) **immediately**.

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES • DIVISION OF PUBLIC HEALTH

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www.ncdhhs.gov • TEL: 919.733.7301 • FAX: 919.733.1020
AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

Mosquito Surveillance for LHDs

The North Carolina Division of Public Health (NC DPH) encourages LHDs to engage in systematic surveillance for mosquitoes. If you are interested in developing vector surveillance, please contact CDB. Systematic mosquito surveillance will help you to understand your local mosquito populations, including species diversity, abundance and seasonal variations. More advanced surveillance will permit insecticide resistance and pathogen testing.

Mosquito Abatement

If local transmission of malaria or dengue is detected in NC, mosquito trapping and control may be indicated. Several counties have preexisting capacity to perform this function in coordination with the NC DPH. However, most counties do not. To account for this, NC Emergency Management has executed a contract with Clarke Environmental Mosquito Management, Inc. that may be activated based on local need.

Communications

State and national news media are already reporting on the increase in travel associated dengue cases. In the event you receive media inquiries please feel free to coordinate with CDB to ensure consistency of messaging and data.

Additional Information

[CDC Dengue June 2024 HAN](#)

[CDC Malaria August 2023 HAN](#)

[NC Communicable Disease Annual Surveillance Data](#)

[NC Communicable Disease Quarterly Surveillance Data](#)

