Mosquito-borne diseases occur annually in West Virginia beginning in early spring and peaking in August and September, coinciding with mosquito activity. Arboviral infections, particularly La Crosse encephalitis (LAC) and West Nile virus (WNV), are endemic mosquito-borne diseases identified in West Virginia. In 2016, eight LAC cases and one WNV case were reported in West Virginia. Persons with severe arboviral infections will often have symptoms of encephalitis. Please be vigilant in identifying such cases, and ensure that all hospitalized patients with encephalitis undergo appropriate arboviral disease testing during mosquito season.

The Zika virus disease is reportable to the local health department (LHD) within 24 hours since it is an emerging disease of public health concern. To prevent local and sexual transmission and infections in pregnant women at-risk of having adverse birth outcomes, prompt public health action is needed. In 2016, 11 Zika virus cases were reported in West Virginia. Chikungunya and dengue fever, two other imported arboviral diseases, are sporadically reported in West Virginia and are reportable within one week and 24 hours, respectively.

When a mosquito-borne disease laboratory report is received, local public health staff will often conduct environmental assessments at the homes of patients to identify and remove mosquito breeding sites, and provide education on mosquito-borne disease prevention. Free diagnostic testing for arboviral diseases (WNV, LAC, chikungunya, dengue, and Zika) is available at the West Virginia Office of Laboratory Services (OLS). The preferred diagnostic testing for WNV and LAC is virus-specific IgM antibodies in cerebrospinal fluid and serum. For Zika testing, serum and urine specimens are needed to perform polymerase chain reaction (PCR) and MAC enzyme-linked immunosorbent assay tests. Chikungunya and dengue PCR tests require serum specimens. For more information on testing, visit the OLS website at http://www.wvdhhr.org/labservices/labs/virology/arbovirus.cfm or call (304) 558-3530.

For more information about mosquito-borne diseases in West Virginia, visit the Division of Infectious Disease Epidemiology (DIDE) website at www.dide.wv.gov. You may also contact your LHD or call the DIDE at (304) 558-5358, extension 1 or the answering service at (304) 925-9946.