Climate change is expected to influence mosquitoes and the viruses they carry. Changes in precipitation and temperature may alter the primary habitat and range of mosquitoes, and impact survival and spread of viruses transmitted from mosquitoes to humans. West Nile Virus and Eastern Equine Encephalitis may become more common with climate change.

**AT-RISK POPULATIONS**

- Anyone who works or plays outdoors, such as athletes, hikers, gardeners, and landscapers
- Elderly
- Pregnant women (Zika virus)
- Children
- Anyone with a weakened immune system
- Travelers (Zika virus)

**MOSQUITOES**

Climate change can cause heavier precipitation, longer warm seasons, and warmer winters. This can make the environment more hospitable to certain types of mosquitoes. Mosquitoes can carry or spread many diseases, including West Nile Virus (WNV), Eastern Equine Encephalitis (EEE), and Zika Virus. The species of mosquitoes that carry WNV and EEE are found in Rhode Island and bite until the first heavy frost (usually the end of October). The species of mosquitoes that carry Zika, chikungunya, dengue fever, malaria, and Yellow Fever are not established in Rhode Island right now. Rhode Islanders traveling to other areas can come in contact with these mosquitoes.
**WHAT YOU CAN DO**

**CLOTHING**
When spending time outside during warm weather, wear long-sleeved shirts/pants whenever possible, especially if outside during dawn or dusk.

**DUMP STANDING WATER**
Remove any water from unused swimming pools, wading pools, boats, planters, trash and recycling bins, tires, and anything else that collects water, and cover them.

**SCREENS**
Put screens on windows and doors. Fix screens that have holes.

**NETTING**
Put insect netting over strollers and playpens.

**BUG SPRAY**
Use EPA-approved bug spray with one of the following active ingredients: DEET (20-30% strength), picaridin, IR3535, and oil of lemon eucalyptus or para-menthane-diol. Do not use DEET on infants.

**CLEAN GUTTERS**
Remove anything around your house and yard that collects water. Clean gutters and downspouts to ensure proper drainage.

**SYMPTOMS OF MOSQUITO-BORNE ILLNESSES**

**WEST NILE VIRUS**
Severe West Nile Virus symptoms can include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness, and paralysis. Milder symptoms can include fever, headache, body aches, nausea, vomiting, swollen lymph glands, or rash on the chest, stomach, and back.

**EASTERN EQUINE ENCEPHALITIS**
EEE symptoms include an abrupt onset of chills, fever, generally unhealthy feeling, joint pain, and muscle pain. Signs and symptoms in patients with encephalitis (brain inflammation) are fever, headache, irritability, restlessness, drowsiness, loss of appetite, vomiting, diarrhea, bluish discoloration, convulsions, and coma.

**ZIKA VIRUS**
Common symptoms of Zika include fever, rash, joint pain, headache, muscle pain, and pink eye. Zika can also be spread from pregnant mothers to their unborn children, and can cause birth defects.