

**Issue:** Mosquitoes kill hundreds of thousands of people each year around the world, and with global travel, pathogens such as the Zika virus are transported to the United States each year. As our population grows and people inhabit new locations, interactions between humans, animals, and mosquitoes increase the risk of exotic disease transmission.

**Background:** In 2020, the Centers for Disease Control and Prevention (CDC) outlined a National Public Health Framework for the Control and Prevention of Vector-Borne Diseases (VBDs). As mandated by the Kay Hagan Tick Act, the Department of Health and Human Services (HHS) is working with CDC to lead an interagency effort in developing a National Strategy to address Vector-borne Diseases carried by ticks, mosquitoes, and other blood-feeding vectors. An integral part of the National Strategy will be identifying strategic goals to prevent and control the Nation's VBDs.

**Discussion:** As outlined in the National Public Health Framework, climate change is increasing the habitat of mosquitoes, ticks, and the disease-causing pathogens they transmit. As a result, invasive mosquito species capable of transmitting West Nile virus, chikungunya, dengue, and Zika virus have taken up residence and established growing populations in the United States. In addition, the number of tick-borne pathogens is increasing at an alarming rate. In addition to Lyme disease, ticks can carry at least 15 other pathogens in the U.S., and invasive species are linked to a new disease in cattle.

Mosquitoes and other vectors of public health importance are attributed to a lower quality of life due to the annoyance and pain caused by the sheer number of biting individuals. With mosquito landing rates of over 100 mosquitoes per minute reported in areas without mosquito control, it's easy to understand that annoyance is an understatement. There are documented cases of livestock being exsanguinated and/or asphyxiated from mosquitoes after hurricanes. Agitation from biting mosquitoes significantly lowers weight gain in beef cattle and milk production in dairy cows.

Protected and Endangered bird and mammal species are highly susceptible to mosquito-transmitted diseases. Two species of forest birds in Hawaii will become extinct due to avian malaria in the next few years if the mosquito vectors are not controlled. The animals in your own home may be affected, with over 100,000 cases of dog heartworm diagnosed annually in the U.S.

Mosquitoes, ticks, and other vectors of public health importance have devastating impacts on local economies throughout the U.S. by negatively impacting recreational activities and tourism. For example, uncontrolled mosquito numbers reduce attendance at outdoor events, sporting events, campgrounds, car races, picnics, reunions, concerts, parades, graduations, wedding ceremonies, and theme parks.

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**NEEDED ACTION:** Support the Reauthorization and Appropriations needed by the Nation's Vector Control Professionals, namely the Strengthening Mosquito Abatement for Safety and Health (SMASH) Act, the Pandemic and All-Hazards Preparedness (PAPHA) Act, and the Kay Hagan Tick Act.

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