

# New Homeland Security Threat: Defending the United States from Mosquito-Transmitted Diseases

**Issue:** With the emergence and spread of the Zika virus in the western hemisphere on the heels of diseases such as dengue fever, West Nile virus and chikungunya, it would appear prudent to increase a sustainable, nationwide capacity for the surveillance and control of their mosquito vectors. In the absence of vaccines for these diseases, vector control remains the first line of defense.

**Background:** Since 2000, annual Epidemiology and Laboratory Capacity (ELC) grants from the Center for Disease Control's (CDC) Division of Vector-Borne Diseases (DVBD) have been provided to 50 states and 6 large cities to detect, monitor, and control over 20 mosquito-borne and tick-borne diseases. Peak annual funding for this program was \$34.7 million in 2002, but over the past decade this amount has continued to decrease to the current level of \$9.2 million.

The Mosquito Abatement for Safety and Health (MASH) Act was designed to support local government mosquito control activities and was originally passed during the first West Nile Virus outbreak. This bill authorized federal funds for local governments to protect our communities from mosquitoes and other disease vectors. Local program funds were to be matched by federal funding by a ratio of at least 1 to 3, and additional funding was to be made available for each state to monitor the local program funding. But by the time the MASH Act was signed into law no funds were ever appropriated. Today we face another imminent outbreak of a disease for which mosquito control is the only viable solution. Fortunately, Congress has the means readily at hand to help prevent or minimize the risk, if it chooses to devote dollars to the existing authority.

In 1996 Congress unanimously approved FQPA (PL 104-170) to modernize the regulation of pesticides and expand data requirements to demonstrate their safety to people and the environment. A key element was authorization to use federal funds when the cost of new data for public health pesticides – those for mosquitoes and similar disease vectors – was more than their producers could afford, putting registration at risk. Unfortunately, these essential funds have never been appropriated.

**Discussion:** Given the federal commitment to ensuring the health of Americans, we believe these small preventative investments are vastly preferable to the enormous health care costs required after large mosquito-borne disease outbreaks. Establishing sustainable training, research and suppression programs for vector-borne disease surveillance and control will ensure a robust capacity to mitigate the impacts of not only the current Zika threat but also dangerous exotic viruses yet to reach our shores.

**Needed Actions: Request for minimum \$177,000,000 as outlined below:**

**Increase the Centers for Disease Control annual budget for arbovirus work from its current level of about \$26.8 million/year to at least \$50 million/year to support vector surveillance and reporting.** At least \$27.5 million of this should go to the states to help public health departments and local mosquito control programs to support laboratory capacity.

**At least \$100,000,000 to fund local government mosquito abatement activities and public education.**

**At least \$27,000,000 to fund data collection efforts to support vector control tools, to be divided as follows:**

- A. At least \$12,000,000 to bolster the Food Quality Protection Act of 1996 that helps retain registrations of existing public health pesticides facing increasingly stringent data collection requirements to prove safety to humans and the environment.
- B. At least \$15,000,000 to support the development and registration of new vector control tools effective against *Aedes aegypti* and *Aedes albopictus*.