



New Hampshire

# Department of Education Technical Advisory

*Serving New Hampshire's Education Community*

## Zika Virus

*This Technical Advisory provides information regarding the CDC alert on Zika virus and current information on protection and prevention.*

On February 1, 2016, the World Health Organization (WHO) declared the Zika virus a Public Health Emergency of International Concern (PHEIC). Zika virus is transmitted to people primarily through the bite of an infected *Aedes* species of mosquito (*A. aegypti* and *A. albopictus*). Both species are found in largely tropical regions in Africa, South and Central America, Puerto Rico, Asia, and the Pacific. **The species of mosquitoes which transmit the Zika virus are not found in New Hampshire.**

While there have been no reported cases of Zika virus disease directly from mosquito bites in the United States, there has been documentation of cases of individuals who have traveled to areas known to have these species; from these individuals further transmission of Zika virus has occurred via sexual contact, during pregnancy, and, currently being investigated, through blood transfusion.

Given the increasing number of outbreaks, the incidence of Zika virus cases among travelers returning to and visiting the United States is likely to rise. Accordingly, the CDC has issued travel alerts to areas where Zika virus is present or spreading. Those travelers who are pregnant or considering pregnancy should be cautious and check with their health care provider.

Zika virus disease can cause symptoms that include mild fever, skin rash, conjunctivitis, muscle and joint pain, malaise or headache. These symptoms normally last for 2-7 days or may not be present at all. Neurological and auto-immune complications of Zika virus disease have included Guillain-Barre syndrome, infants with microcephaly, and potentially other neurological conditions.

There is no specific treatment or vaccine currently available for Zika virus disease.

**Prevention** requires the reduction of the mosquito population, decreasing the potential for mosquito bites and spread of disease. Mosquito control protocols for West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE) are appropriate and recommended for prevention and control of a potential Zika virus outbreak.

### Surveillance:

- a. The Department of Health and Human Services continue to monitor the prevalence of Zika virus disease and mosquito populations nationally and locally.

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- b. The State Laboratory has the capacity to test for the Zika virus.
- c. School administration and school nurses need to be aware of students and other members of their school community who have traveled to areas known to have Zika virus carrying mosquitoes.

**Reduction of mosquito breeding sites:**

- a. These mosquitoes typically lay eggs in and near standing water in buckets, bowls, roof gutters, flower pots, vases, and containers that store water.
- b. It is important to empty, clean, or cover these regularly.
- c. Wetlands surrounding fields should be avoided.

**Pesticides and biological mosquito control:**

- a. Personal use of repellents should contain *DEET* (N, N-diethyl-3-methylbenzamide), *IR3535* (3-[N-acetyl-N-butyl]-aminopropionic acid ethyl ester) or *icaridin* (1-piperidinecarboxylic acid, 2-(2-hydroxyethyl)-1-methylpropylester).
- b. Insecticides recommended by the WHO Pesticide Evaluation Scheme may also be used as larvicides to treat larger areas of water, wetlands, or marshy areas. Using products that include synthetic pyrethroid pesticides, or *resmethrin* is recommended. In addition to resmethrin, adulticides contains another active ingredient called *piperonyl butoxide* (PBO).

**School and Community Education**

The best form of prevention is protection against mosquito bites

- a. Use insect repellent containing at least 20% DEET
- b. Always follow the product label instructions.
- c. Repeat insect repellent as directed.
- d. Do not use repellent on the skin *under clothing*.
- e. If using sunscreen, apply sunscreen before applying insect repellent
- f. Wear long sleeves and long pants
- g. Avoid outside activities during times of day when mosquitoes are active.
- h. Eliminate standing water and other breeding grounds for mosquitoes.

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### Resources

<http://www.dhhs.nh.gov/dphs/cdcs/zika/>

[www.cdc.gov/zika](http://www.cdc.gov/zika)

<http://www.who.int/campaigns/immunization-week/2016/en/>

[www.epa.gov/pesticides/](http://www.epa.gov/pesticides/)

<http://npic.orst.edu/index.html>

[https://owa.nh.gov/owa/redir.aspx?C=mFhL5uz1yiOb5K6VdOKWeSUvzEV9xDv\\_iS-GIMShFt8gacEPTm3TCA..&URL=https%3a%2f%2fwww.epa.gov%2finsect-repellents%2ffind-insect-repellent-right-you](https://owa.nh.gov/owa/redir.aspx?C=mFhL5uz1yiOb5K6VdOKWeSUvzEV9xDv_iS-GIMShFt8gacEPTm3TCA..&URL=https%3a%2f%2fwww.epa.gov%2finsect-repellents%2ffind-insect-repellent-right-you)

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