

The Local Board of Health Environmental Health Primer Vector Control Factsheet



ENVIRONMENTAL HEALTH

Background

- Vectors are insects, arthropods, or animals that are capable of carrying disease pathogens from one animal, human, etc. to another.
- Examples of vectors include rats and mice, mosquitoes, ticks, fleas, lice, mechanical vectors, nuisance blood-feeders, and bed bugs.
- Vectors transmit disease through either mechanical transmission, where the infectious agent is carried on the vector's body, or biological transmission, where the disease agent undergoes developmental stages inside the body of the vector prior to transmission.
- Examples of vector-borne diseases include West Nile Virus, Lyme disease, plague, tularemia, malaria, Eastern Equine Encephalitis, Dengue Fever, and Rocky Mountain Spotted Fever.
- Vector-borne diseases have increased due to the expanding population of humans and livestock, advancement in transportation, massive ecologic and environmental changes brought about by human activity, bioterrorist activities supported by hostile governments and individuals, and a decrease in vector control programs because of budget shortages.

Board of Health Actions

- Ensure that community needs assessments are conducted and used to inform vector control plans, and that plans are regularly evaluated.
- Ensure that health departments are participating in active and passive surveillance of vector activities.
- Partner with other elected officials, such as county commissioners, city councils, and mayors, as well as relevant agencies and organizations, like the Department of Natural Resources, parks and recreation departments, senior centers, libraries, and healthcare providers, when planning vector monitoring and control programs.
- Guarantee that Integrated Pest Management is being used for vector control.
- Communicate risks to the community in the event of a vector-related emergency.

Resources for Continuing Education

- Association of State and Territorial Health Officials. (2005). *Public Health Confronts the Mosquito: Developing Sustainable State and Local Mosquito Control Programs*.
- National Association of Local Boards of Health. (2008). *Vector Control Strategies for Local Boards of Health*.
- National Association of Local Boards of Health. (2011). Vector Control. In *The Local Board of Health Environmental Health Primer* (2nd ed.).

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