THE DISTRICT OF COLUMBIA'S WEST NILE VIRUS CONTROL PROGRAM

A Model in Achieving A Positive Community Response

Health departments across the country face the challenge of balancing the threat of West Nile virus with resident's concerns of the adverse health and environmental effects associated with pesticide spraying. The District of Columbia's Department of Health (DOH) faced that dilemma in 2002 while crafting its Arbovirus Surveillance and Response Plan. After careful consideration, DOH developed a plan that successfully protected residents and visitors from the threat of West Nile virus without spraying pesticides for adult mosquitoes.

The Arbovirus plan is comprised of human, avian, mammal and mosquito surveillance, mosquito control and public outreach and education. The District's program resulted in a significant decrease in West Nile virus incidences (from 34 cases in 2002 to 3 cases in 2003 to 1 case in 2004). Moreover, the plan served to reassure the public that DOH was taking effective steps to protect the community.

In 2002, the District faced pressure from residents and neighboring jurisdictions to spray pesticides for adult mosquitoes (a.k.a. adulticides). At the same time, DOH was aware that broadcast aerosol applications of pesticides may elicit a negative public response for logistical reasons or for negatively impacting public health due in part to the District's large asthma population. DOH chose to create a plan that focuses on proven mosquito management techniques rather than the use of adulticides for several reasons. Those reasons include the continuing debate over the efficacy of adulticides, the concern that aerosolized pesticides can trigger and aggravate respiratory conditions, and the potential adverse impact on endangered species.

DOH determined that the safest and most effective technique over time in managing mosquito populations is to identify and eliminate potential and actual breeding sites by removing standing pools of water, repairing down spouts, cutting weeds to less than eight inches and by applying larvacide in waters that can not be removed or refreshed, such as catchbasins. In addition, the District enacted source reduction legislation that requires residents to eliminate, or otherwise prevent, standing bodies of water on their property.

In areas where surveillance indicates a positive mosquito pool or human case, DOH staff initiates intensified, targeted larvicidal applications and a door-to-door public education campaign within an eight-block radius of the infected pool or human case to notify residents to take precautions. DOH staff disseminates brochures in three languages with facts about the virus, mosquito habitat and biology, methods to eliminate mosquito breeding sites and personal protection measures. The outreach and education information provided by trained staff has served to allay overzealous and sometimes irrational fears. DOH responds to demands for spraying by explaining the program in place and its effectiveness and by repeating the mantra of protection and prevention.

The consistency of the educational campaign, coupled with the demonstrated success of the larval and source reduction program, has served as a model in the area and to reassure the public that DOH is protecting residents from the threat of West Nile virus as well as exposure to mosquito pesticides. As a result, DOH was able to successfully address the conflict between residents fearful of West Nile virus and those troubled by the harmful effects of pesticide spraying.

Government of the District of Columbia
Anthony A. Williams, Mayor

For more information, please contact:
Peggy Keller, MPH, Interim Chief, Bureau of Community Hygiene in the District of Columbia Department of Health. Tel. 202-535-2323, Email: peggy.keller@dc.gov. The DC Response Plan is available online at http://www.dchealth.dc.gov.