



WEST NILE VIRUS EDUCATION PROJECT LOS ANGELES COUNTY, 2004

BACKGROUND

West Nile virus (WNV) was first identified in 1937 in a febrile person in the West Nile district of Uganda, and since then, it has significantly spread throughout the world. The first WNV presence in the United States was documented 62 years later (1999) in New York City. In 2004, LAC experienced its first big year of locally acquired WNV activity with 309 positive human cases and 13 deaths (see WNV in the Disease Report section for specifics).

As only a few WNV cases were reported in LAC prior to 2004, the medical and public populations had little first hand knowledge of the disease. To combat this knowledge gap, a broad-based health education program was launched. The campaign looked to first update medical providers and laboratories on WNV prevention, treatment, and reporting; and second, increase the public's awareness of the disease and knowledge of prevention behaviors to lower the risk of WNV infection. A variety of approaches and materials were utilized to get pertinent information to these two groups.

METHODS/RESULTS

Healthcare Provider Information (Physicians and Laboratories): In anticipation of human WNV cases, at the beginning of June 2004 the LAC Department of Health Services (LAC DHS) took great strides to update physicians and laboratory directors about WNV. This included information about: the disease, case definitions, treatment, prevention protocols, and disease reporting. Since surveillance activities rely heavily on the participation of physicians and laboratories, they were deemed priority groups for WNV education and awareness. The effective involvement with these groups allows for more accurate monitoring of WNV disease activity and deployment of prevention resources. Hence, a mailing to over 35,000 licensed LAC physicians and laboratories sent a WNV instructional CD-ROM, updating physicians on the latest information and resources available to them.

Part of the education outreach to physicians and laboratory directors was to highlight expanded reporting requirements for WNV. As of July 1, 2004, LAC DHS added WNV to the list of mandated reportable diseases and conditions in LAC (California Code of Regulations, Title 17, Sections 2503 and 2505). Physicians and laboratories must report patients with a positive WNV test to DHS within one (1) working day using a standard Confidential Morbidity Report (CMR).

During the peak of the 2004 WNV season, a second mailing was sent to physicians in identified WNV "hot spots" of activity—updating them on the latest resources and health education materials available to them through LACDHS. In addition, public health nurses, in Service Planning Areas 3 and 4 (San Gabriel and Whittier area) where most of the initial cases were reported, distributed WNV prevention education literature to individual physicians, clinics, and hospitals for further distribution to their patients.

Printed Materials for the Public: LACDHS launched an aggressive education campaign targeting the public through various mechanisms of communication. A variety of WNV prevention materials were made available to community organizations, city officials, and other community partners to distribute to the public. A letter to the 88 City Mayors within LAC was sent advising them of the health education materials available to them and their constituents through LACDHS.

The health education message drafted for the general public and those at high-risk for WNV infection and complications focused on aspects of WNV transmission—specifically: 1) personal mosquito abatement tips for the home (i.e., the removal of sources of stagnant water that could serve as areas where mosquitoes might breed), 2) home protection with the use of well-maintained screens on windows and doors, and 3) personal protection from bites with the use of long sleeves or pants and/or the use of



effective mosquito repellent. In addition to these key steps the public could do to reduce their overall risk to infection; the public was educated and asked to participate in dead bird surveillance. Dead bird monitoring and testing is a critical piece of information that the WNV prevention agencies can use to identify potential “hot spots” of WNV disease activity and pinpoint abatement activities.

WNV information palm cards targeting the general public were distributed in nine different languages; English, Armenian, Cambodian, Chinese, Farsi, Korean, Russian, Spanish and Vietnamese. In addition, English and Spanish booklets (“Mosquito Control in Los Angeles County”) were distributed through LACDHS’s Binational Border Program to LAC Parks and Recreation, Public Libraries, and the Latin American Consulates—by the end of the season, over 150,000 booklets were distributed to the public. Since it was an area of increased incidence, a mass mailing of a WNV information card was sent to residents in the First Supervisory District; this information was sent directly from the Supervisor’s office.

Press Releases/Conferences: A WNV press conference with appropriate personnel was held early in the season to develop an interest in WNV activities. During the peak season of WNV, a press conference was coordinated as part of a DEET education campaign to the public; demonstrating the proper use of insect repellent with DEET. This event was held in a senior center to highlight the older age group’s increase risk for more severe outcome to infection. Press releases were issued throughout the season to highlight disease activity milestones, (e.g. the first positive bird, the first human case, the first death, etc)

Radio/Television: Public Service Announcements via the English and Spanish radio and television stations were broadcasted, with over 150 radio spots delivered throughout the summer months.

Internet: Regularly updated WNV information was made available online through the LACDHS Public Health web page. Case summary information was updated and posted on this site twice a week. The WNV web page also had health education materials available in multiple languages for immediate downloading and printing and links to other appropriate websites were provided.

Telephone: A toll free general WNV information line (1-800-975-4448) was established to provide basic WNV information and prevention strategies to the general public in five languages; English, Spanish, Korean, Mandarin and Cantonese. West Nile virus prevention messages were recorded providing answers to commonly asked questions, such as “how is WNV transmitted to humans?”

Presentations: LACDHS staff were trained through the Speakers Bureau on WNV and conducted over 150 presentations throughout the county to community centers, schools, and other agency partners.

Survey: In September of 2004, a Knowledge, Attitude, and Perception (KAP) telephone survey was commissioned by LACDHS. The survey was designed to reveal one’s level of understanding regarding WNV, and in an indirect way, it also highlighted the effectiveness of current health education efforts and identified areas of improvement. Survey results showed that both community knowledge about WNV as a potential health risk and knowledge that WNV was transmitted by the bite of a mosquito were extremely high. Levels of public concern in LAC were also elevated in 2004 with 61% of the respondents either ‘very’ or ‘somewhat’ concerned that they themselves, or someone they know, may become sick with WNV. Study participants correctly identified the elderly (77%) as a vulnerable risk group. At the same time, 76% were either ‘very’ or ‘somewhat’ confident that the Health Department could protect the public. However, the survey also showed areas of improvement in the public’s self-reported actions for personal protection against WNV. The survey revealed that only 50% respondents had changed their behaviors due to WNV; only 48% reported draining areas of standing water around their home, 38% reported wearing protective clothing, and only 20% reported using repellent more than previously.

When asked about sources of WNV information, respondents gave the standard media outlets as their main source of WNV health information—65% television, 15% newspaper, and 6% radio. In comparison, the internet accounted for only 2% of the respondents.



DISCUSSION

The goal for 2005 will be to continue to reinforce the public's WNV knowledge base of this emergent infectious disease in Los Angeles, and work on improving the public's level of confidence in the combined agencies working on WNV prevention to protect them. Changing of human behaviors for the benefit of their own health has always been crucial, yet, difficult to obtain. Promotion of personal behaviors the public can take to minimize the risk of being exposed to WNV is a critical part of the public health message.