

THE WHITE HOUSE

MARIA E

4/13

Memoirs Vreese

Jim Kennedy

Marge Tarnay

Chas Jennings

Jack Smith

1944

This just in FROM E.A.

Kris B 67071



Jane
Henriques/DC/USEPA/
US@EPA

04/13/00 09:57 AM

To: Corina Cortez/DC/USEPA/US@EPA, Maryann
Froehlich/DC/USEPA/US@EPA, Kim Rubey/DC/USEPA/US@EPA,
Steve Snider/DC/USEPA/US@EPA, Reid Wilson/DC/USEPA/US@EPA

cc:

Subject: Lavacide request from NYC re: mosquitos

Last night we received a call from Region II asking OPPTS to look into the feasibility of a possible label change to a particular EPA-registered lavacide known as Altosid XR Briquets. These briquets are placed in catch basins for surface water and are used to reduce the likelihood of breeding mosquitos. NYC would like to apply the product this weekend in some 40-60,000 catch basins throughout the City, but the City's catch basins are too small to meet our current application requirements. (see attached fact sheet for more information). While alternatives exist, they do not last as long and are more expensive.

NYC got the manufacturer to contact OPPTS earlier this week and asked EPA to consider a label change. Since the manufacturer had not heard from OPPTS, NYC officials contacted Region II for assistance.

While it usually takes at least 30 days to review a similar request, the Office of Pesticide Programs reviewed the label requirements for this lavacide late last night and this morning. Our scientists believe they will be able to grant this request this afternoon. Our scientists believe they are able to grant this request and without jeopardizing any safety or public health concerns, but our label change will require the City to monitor the situation and keep us abreast of their activities.

I will keep you in the loop as this progresses throughout the day, but I wanted you to know what's going on in case you get telephone calls.

Let me know if you need anything else from me.

Jane

NYC contacted Region II for some assistance on would like to use a particular lavacide (Altosid XR) briquet in some 40-60,000 catch basins throughout the city this weekend. Unfortunately, their catch basins range in size between 20-40 square feet of surface water and the label requirements for this particular briquet require a minimum dosage rate of one briquet per 100 square feet of water.



Jana
Henriques/DC/USEPA/
US@EPA

04/13/00 10:32 AM

To: Corina Cortez/DC/USEPA/US@EPA, Maryann
Froehlich/DC/USEPA/US@EPA, Kim Rubey/DC/USEPA/US@EPA,
Steve Snider/DC/USEPA/US@EPA, Reid Wilson/DC/USEPA/US@EPA
cc: Jim Aidala/DC/USEPA/US@EPA, Antonio
Bravo/DC/USEPA/US@EPA, Dennis Dezial/DC/USEPA/US@EPA,
Stephen Johnson/DC/USEPA/US@EPA, Douglas
Parsons/DC/USEPA/US@EPA, Susan Wayland/DC/USEPA/US@EPA

Subject: Mayor's announcement

Region II tells me that Mayor Guilianni is making an announcement this morning at 11 a.m. that the city will be laveciding the catch basins this weekend to deal with mosquito control. He is also expected to make an announcement that the City will not use malathion this year.

here's the attachment on Altosid XR.



- ALTOSID



The White House
OFFICE OF CABINET AFFAIRS

6-2216
Date:3/20/00

To:

Christopher C. Jennings w/ Deborah Adler

Fax:

456-5557

From:

Irma Martinez

Pages:

7

(Including this cover sheet)

Comments:



DEPARTMENT OF HEALTH & HUMAN SERVICES

Chief of Staff

Washington, D.C. 20201

FACSIMILE

DATE: 3/20/00
TO: Lme
FAX#: 456-7525

FROM: Liz Summy
Deputy Chief of Staff

Phone: 202/690-7431 Fax: 202/401-5783

COMMENTS:

Here are the gtr I just mentioned.
Thanks for sharing w/ COS & DPC. Call me
if you have any questions.

-Rebecca

____ Pages [including this cover]

DRAFT NOT FOR RELEASE MAY CONTAIN FACTUAL ERRORS-03/17/00-3
Q/As WN NYC Serosurvey Results

Background: In August and September, 1999, West Nile (WN) virus was recognized in the Western Hemisphere for the first time when it caused an epidemic of encephalitis and aseptic meningitis in the New York City metropolitan area. Intensive hospital-based surveillance identified 62 cases including 7 deaths in the region, with 9 cases residing within the outbreak's epicenter, an approximately 9 km² area of the borough of Queens. To better estimate the public health impact of the epidemic, a household-based seroprevalence survey was conducted in this area.

Last fall, the New York City Department of Health (DOH), in collaboration with CDC, conducted a door-to-door household survey for persons previously infected with West Nile virus in northern Queens. City blocks were selected at random from a 9 km² area that encompassed parts of the neighborhoods of Auburndale, Linden Hill, Murray Hill, and Whitestone (mostly within Community Board 7), where the highest rates of West Nile encephalitis had been found.

The New York City DOH is in charge of this survey. CDC provided technical assistance, laboratory testing, and additional field staff to help New York City DOH conduct the survey. This is an important survey for the community. The survey was intended to help answer the following public health question: "In the epicenter of the epidemic, what percentage of the population actually became infected with West Nile virus?"

Q. What are the results of the door-to-door serosurvey conducted in NYC last fall?

A. CDC reported to New York City DOH that 19 anonymous blood samples tested positive for evidence of previous infection with West Nile virus.

Q. What do these findings mean?

Based on these results, it is estimated that approximately 2.6% (or between 1.2% and 4.1%) of the population of age 5 or greater in the surveyed area in northern Queens (population 46,220) had been infected with West Nile virus (or between 533 and 1903 individuals). These results cannot be extrapolated to other areas of the city. However, because the sampled area had the highest rate of West Nile encephalitis cases, researchers believe that infection rates elsewhere in the city were significantly lower. These findings, while not unexpected, demonstrate the potential impact of mosquito-borne diseases on a community, and the value of vigilance in monitoring and preventing the proliferation of urban mosquitoes. As described in the New York City West Nile plan, the New York City DOH is correctly emphasizing prevention— by eliminating areas of standing water where mosquitoes can breed; using larvicides to kill mosquito larvae (“wigglers”, which live in standing water) before they can transform into adult mosquitoes; surveillance to rapidly detect infection in humans, animals, and mosquitoes; and education and outreach to the public.

Q. Did people who had antibodies to West Nile virus report any illness?

A. Surveyed individuals whose blood tested positive for antibodies to West Nile virus (indicating a previous infection) were more likely to report recent illness characterized by fever, headache, muscle aches, joint pains, and fatigue, than persons who tested negative (30% vs. 11%).

Q. Are people who tested positive still at risk from West Nile virus?

A. No. The infection itself (and any associated illness) is short-lived. A persons with antibodies to West Nile virus probably has life-long immunity to another infection with this virus.

Q. How was the serosurvey in NYC conducted?

A. Local elected officials and other community leaders helped inform neighborhood residents about the survey. Residents of selected blocks were pre-notified that they might be visited over the next day or two. Mobile health vans were stationed throughout the community and served as alternate sites for interviewing and blood drawing, as well as sources of information for interested residents. Information pamphlets were prepared in English, Chinese, French, Hindi, Italian, Korean, Russian, Spanish, and Urdu languages, and interpreters for most languages were made available during the survey. Of 1,077 households invited to participate, 470 (44%) agreed to participate, and 677 individuals (over the age of 5) in those households anonymously completed interviews and volunteered blood samples.

Q. What tests were conducted on the blood and why?

Serum samples were tested for two types of antibodies to West Nile virus: immunoglobulin M (IgM) and immunoglobulin G (IgG). The two tests help determine whether an individual was recently infected with West Nile virus (IgM antibodies) and whether an individual was ever infected with West Nile virus (IgG antibodies).

Q. What were people told about their involvement in this survey?

Everyone who participated was fully informed about what would be required if they participated and how blood collected would be used. Everyone who participated was a volunteer. This was

an anonymous survey; no personal identifying information was collected. Therefore, these results are available only as an aggregate report.

Q. What can people who are concerned about the possibility of West Nile virus returning this Spring do?

A. In residential areas, the public is urged to assist in this prevention effort by eliminating areas where water can accumulate around their homes. This includes unclogging roof gutters, discarding old tires, buckets, or other containers that may hold water, or covering them, changing water in bird baths at least once a week, and keeping swimming pools clean and chlorinated, or draining and covering them.

Q. Did the people who participated in the serosurvey receive any compensation for their involvement?

A. No. The residents of northern Queens who took part in this important public health effort were motivated by a desire to help the community they live in.

Q. Is this type of survey unusual? I've never heard of this before the recent West Nile virus outbreak?

A. The New York City Health Department, with the assistance of CDC, conducted a simple community-based voluntary and anonymous "seroprevalence survey." This is a standard tool frequently used by public health officials. "Sero" refers to the testing blood for antibodies to an infectious organism; "prevalence" means the percentage of persons with a particular characteristic at a given point in time. Therefore, "West Nile virus seroprevalence survey" literally means a survey to determine the percentage of persons with antibodies to West Nile virus at a given point in time.

Q. Does West Nile virus usually cause serious illness in humans?

A. No. Viruses like West Nile usually cause serious illness in only a small minority of persons who become infected from a mosquito bite. Elderly people (>50 years of age) are at higher risk of developing an illness from infection with West Nile virus than are younger people.

Q. Do these results suggest that this strain of West Nile virus is more virulent than other known strains?

A. No.

To: Kris Balderston / Irma Martinez (456-2525)
Maria Echaveste / Marge Tarmey (456-1907)
Chris Jennings / Deborah Adler (456-5557)

From: Liz Summy,
Phone: 690-7431

Subject: West Nile-Like Virus Update

Pages : 2 (including Cover Sheet)

An update !!!

call w/ questions

West Nile Virus Update
Surveillance for Overwintering Mosquitoes in New York City
Prepared by the Centers for Disease Control and Prevention (CDC)
March 7, 2000

As recommended in the CDC guidelines developed following the November 1999 meeting on West Nile Virus (WNV) in the United States, scientists from New York State, New York City (NYC), and CDC have been collecting overwintering *Culex* mosquitoes in NYC to determine whether they are infected with WNV. Two collections, totaling 69 mosquito pools, were made in mid-January and early February. Collection sites were selected based on the location of WNV-infected mosquitoes and birds during the 1999 outbreak.

Mosquitoes were tested for WNV at CDC, Fort Collins, Colorado, for virus isolation by plaque assay and by TaqMan RT-PCR (real time-polymerase chain reaction), a new technique with greater sensitivity than conventional RT-PCR for detecting viral genetic material. Although none of the pools produced live virus isolates in the plaque assay, three of the 69 pools were positive by TaqMan RT-PCR (i.e., demonstrated low but detectable levels of WN viral ribonucleic acids [RNA]). All three positive pools were collected at Fort Totten in northern Queens, NYC.

The standard technique for detecting virus in mosquitoes is the cell culture plaque assay, which detects live virus. The real time PCR technique was first used to detect WNV RNA in mosquitoes during the outbreak investigation from September-November 1999, and produced results consistent with those obtained with plaque assay. The PCR technique is highly sensitive for the detection of the nucleic acids of pathogens and represents a novel approach for the detection and quantitation of viruses; however, Taq-Man RT-PCR is not the standard method for detecting arboviral RNA.

It is not known why isolation of live infectious virus was not successful in the three positive pools, but possible explanations include: (1) the concentration of virus in the overwintering mosquitoes was below the level of cultivability; (2) the virus in the mosquitoes may be non-infectious, as a result of biological changes in overwintering mosquitoes; (3) the virus may have been killed during the collection and processing of the mosquito pools; (4) non-infectious viral RNA was present in mosquitoes; or (5) other unknown factors may have resulted in the positive PCR results. Attempts to isolate live virus from these pools are continuing using other systems. An *MMWR* reporting these results is scheduled for publication on March 9.

The public health significance of these findings is unknown, and whether WNV will persist in the New York area is similarly not known; however, these results demonstrate the value of the surveillance programs initiated by New York State and NYC, and underscore the importance of the comprehensive plans for mosquito surveillance and control that have been developed by these and other States in the region. By April 1, CDC will fund 17 Atlantic Coast and Gulf Coast States, NYC, and Washington D.C., to support their (1) planning and developing effective arbovirus surveillance and response programs focusing on WNV, and (2) building epidemiologic and laboratory capacity to address WN and other arboviruses.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Chief of Staff

Washington, D.C. 20201

FACSIMILE

DATE:

4/18/00

TO:

Devorah

FAX#:

456-5557

FROM:

Liz Summy
Deputy Chief of Staff

Phone:

202/690-7431

Fax: 202/401-5783

COMMENTS:

8

Pages [including this cover]



THE SECRETARY OF HEALTH AND HUMAN SERVICES
WASHINGTON, D.C. 20201

APR 12 2000

The Honorable Joseph Crowley
House of Representatives
Washington, D.C. 20515-3207

Dear Mr. Crowley:

Thank you for your letter that included a copy of your report regarding West Nile Virus in New York and your recommendation for a West Nile coordinator or Czar to oversee all of the activities surrounding this issue on the Federal, State and local level.

The Department of Health and Human Services (HHS) regards the prevention and control of this and other emerging infectious diseases as one of its highest priorities. We also recognize the need for swift and coordinated action by this Department and other Federal agencies in support of, and in coordination with, the decisions and actions of our State and local partners.

Within HHS, the Centers for Disease Control and Prevention (CDC) works to prevent illness, disability, and death caused by infectious diseases in the United States and around the world and is the lead operating division with responsibility for tracking and providing technical assistance on West Nile Virus. Within CDC, the National Center for Infectious Diseases (NCID) has primary responsibility for supporting these functions. Consequently, we have designated the following individuals as lead officials to coordinate the HHS response:

Stephen M. Ostroff, M.D. (primary)
Associate Director for Epidemiologic Science
National Center for Infectious Diseases
Centers for Disease Control and Prevention
Building 1, Room 6035, Mailstop C12
1600 Clifton Road, N.E.
Atlanta, Georgia 30333
Phone: (404) 639-2603
Fax: (404) 639-3039

James M. Hughes, M.D. (alternate)
Director, National Center for Infectious
Diseases
Centers for Disease Control and Prevention
Building 1, Room 6103, Mailstop C12
1600 Clifton Road, N.E.
Atlanta, Georgia 30333
Phone: (404) 639-3401
Fax: (404) 639-3039

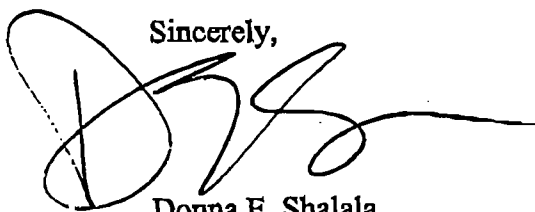
Dr. Stephen M. Ostroff will serve as the primary spokesperson on West Nile and Dr. James M. Hughes will serve as his alternate. Please be assured that Drs. Ostroff and Hughes and their staffs will continue to work in close collaboration with all relevant State and local partners, as well as with Federal scientists and other officials from the Environmental Protection Agency, Department of Agriculture, Department of Interior, Department of Defense, and other HHS components. In

Page 2 - The Honorable Joseph Crowley

this regard, CDC is working with our Federal partners to establish a West Nile Virus Coordinating Committee to facilitate timely communications with all of these Departments and agencies. I believe this Committee will optimize the Federal effort to comprehensively address this emerging public health issue at the Federal, State, and local levels. To keep the Administration informed in a timely manner, CDC is also providing regular updates to my office concerning these activities and will continue to do so. CDC's Washington office will continue working with you and other Congressional offices to also keep you informed.

As you know, by July 1, 2000, New York State will have received \$200,000 and New York City will have received \$199,224 in cooperative agreement funds from CDC to assist in planning and developing more effective arbovirus surveillance and response programs focusing on West Nile Virus and to build epidemiologic and laboratory capacity for addressing West Nile and other arbovirus infections. HHS deeply appreciates your support of our efforts to address this emerging infectious disease, and we look forward to working with you and other partners on this and other important public health issues.

Sincerely,

A handwritten signature in black ink, appearing to be "D. Shalala", with a long horizontal flourish extending to the right.

Donna E. Shalala

To: Kris Balderston / Irma Martinez (456-2525)
Maria Echaveste / Marge Tarmey (456-1907)
Chris Jennings / Devorah Adler (456-5557)

From: Liz Summy,
Phone: 690-7431

Subject: West Nile-Like Virus Update

Pages : 3 (including Cover Sheet)

HHS NEWS

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

FOR IMMEDIATE RELEASE
Thursday, May 25, 2000

Contact: CDC Press Office
(404) 639-3286

CLINTON ADMINISTRATION PROVIDES ADDITIONAL FUNDING TO PREVENT THE SPREAD OF THE WEST NILE VIRUS

HHS Secretary Donna E. Shalala announced today that the Clinton administration will provide an additional \$5 million for states and local communities to expand surveillance activities for the West Nile virus. This doubles the Centers for Disease Control and Prevention's (CDC) West Nile virus funding for fiscal year 2000. Last fall's outbreak in the New York metropolitan area, which included 62 cases of encephalitis and 7 deaths, was the first time West Nile virus was identified in the Western Hemisphere.

Earlier this year, a total of \$2.7 million was provided to 17 states and the two cities along the Atlantic and Gulf coasts that were part of last year's outbreak or were at higher risk this year based on bird migratory patterns. However, because of the unique nature of the introduction of the West Nile virus, national efforts are needed. The additional funding includes \$3.1 million to enable other parts of the country to diagnose West Nile infection if needed and \$1.4 million to further support the original 19 locations. The remaining funds will be used by CDC to support the state and local efforts.

"Effective prevention and control of the West Nile virus depends on a strong public health infrastructure at the national, state and local level including surveillance systems, laboratory diagnostic capability, and public information campaigns," Secretary Shalala said. "While we have begun to rebuild epidemiologic and laboratory capacities for vector-borne diseases, it is clear that additional resources are needed."

This new funding will enable CDC to enhance the capacity of state and local health departments to detect West Nile virus activity, and expand CDC's capacity to meet increasing requests for technical assistance and training from state and local health departments. Funding also expands the capacity to perform reference laboratory work; and collect, analyze, and rapidly disseminate information and data.

The arrival of the West Nile virus in the northeastern United States demonstrates the ease with which emerging infectious diseases can travel into new geographic areas. The President's fiscal year 2001 budget proposes a total of \$123 million for emerging infectious diseases, an increase of \$25 million, or 25 percent above the fiscal year 2000 level. Of this increase, \$20 million would support the development of a national electronic disease surveillance network, which will enhance the ability of state and local public health officials to respond to multi-state outbreaks of diseases and share information about emerging infectious diseases emergencies and trends.

- More -

- 2 -

The funding will be allocated based on needs from requesting states and localities. The 19 states and localities currently receiving funding that will share \$1.4 million are: Alabama, Connecticut, Delaware, the District of Columbia, Florida, Georgia, Louisiana, Maryland, Massachusetts, Mississippi, New Jersey, New York City, New York State, North Carolina, Pennsylvania, Rhode Island, South Carolina, Texas, and Virginia.

The other 31 states in the contiguous United States are eligible to receive the remaining \$3.1 million depending on need.

###

Note: For other HHS Press Releases and Fact Sheets pertaining to the subject of this announcement, please visit our Press Release and Fact Sheet search engine at: <http://www.os.dhhs.gov/news/press/>.

To: Kris Balderston / Irma Martinez (456-2525)
Maria Echaveste / Marge Tarmey (456-1907)
Chris Jennings / Devorah Adler (456-5557)

From: Liz Summy,
Phone: 690-7431

Subject: West Nile-Like Virus Update

Pages : 3 (including Cover Sheet)

HHS NEWS

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

FOR IMMEDIATE RELEASE

Thursday, May 25, 2000

Contact: CDC Press Office

(404) 639-3286

CLINTON ADMINISTRATION PROVIDES ADDITIONAL FUNDING TO PREVENT THE SPREAD OF THE WEST NILE VIRUS

HHS Secretary Donna E. Shalala announced today that the Clinton administration will provide an additional \$5 million for states and local communities to expand surveillance activities for the West Nile virus. This doubles the Centers for Disease Control and Prevention's (CDC) West Nile virus funding for fiscal year 2000. Last fall's outbreak in the New York metropolitan area, which included 62 cases of encephalitis and 7 deaths, was the first time West Nile virus was identified in the Western Hemisphere.

Earlier this year, a total of \$2.7 million was provided to 17 states and the two cities along the Atlantic and Gulf coasts that were part of last year's outbreak or were at higher risk this year based on bird migratory patterns. However, because of the unique nature of the introduction of the West Nile virus, national efforts are needed. The additional funding includes \$3.1 million to enable other parts of the country to diagnose West Nile infection if needed and \$1.4 million to further support the original 19 locations. The remaining funds will be used by CDC to support the state and local efforts.

"Effective prevention and control of the West Nile virus depends on a strong public health infrastructure at the national, state and local level including surveillance systems, laboratory diagnostic capability, and public information campaigns," Secretary Shalala said. "While we have begun to rebuild epidemiologic and laboratory capacities for vector-borne diseases, it is clear that additional resources are needed."

This new funding will enable CDC to enhance the capacity of state and local health departments to detect West Nile virus activity, and expand CDC's capacity to meet increasing requests for technical assistance and training from state and local health departments. Funding also expands the capacity to perform reference laboratory work; and collect, analyze, and rapidly disseminate information and data.

The arrival of the West Nile virus in the northeastern United States demonstrates the ease with which emerging infectious diseases can travel into new geographic areas. The President's fiscal year 2001 budget proposes a total of \$123 million for emerging infectious diseases, an increase of \$25 million, or 25 percent above the fiscal year 2000 level. Of this increase, \$20 million would support the development of a national electronic disease surveillance network, which will enhance the ability of state and local public health officials to respond to multi-state outbreaks of diseases and share information about emerging infectious diseases emergencies and trends.

- More -

- 2 -

The funding will be allocated based on needs from requesting states and localities. The 19 states and localities currently receiving funding that will share \$1.4 million are: Alabama, Connecticut, Delaware, the District of Columbia, Florida, Georgia, Louisiana, Maryland, Massachusetts, Mississippi, New Jersey, New York City, New York State, North Carolina, Pennsylvania, Rhode Island, South Carolina, Texas, and Virginia.

The other 31 states in the contiguous United States are eligible to receive the remaining \$3.1 million depending on need

###

Note: For other HHS Press Releases and Fact Sheets pertaining to the subject of this announcement, please visit our Press Release and Fact Sheet search engine at: <http://www.os.dhhs.gov/news/press/>

THE WHITE HOUSE
WASHINGTON

2/9/00

TD: Marge Tarmy
Chris Tennings
Ten Palmieri
Elliot Dringer
Ruby Shamus
Kathy Button
Tabe Seewert

FR: Sean O'Flaherty 67074

AC: USDA letter on malathion
which addresses potential
carcinogen issue.

FEB-04-00 06:24P TOXICOLOGY INT INC

703 273 9873

P.01



February 03, 2000

Dr. Robert K. Simon
Environmental & Toxicology International
11244 Waples Mill Road, Suite H2
Fairfax, VA 22030

Dear Dr. Simon:

Thank you for your letter of inquiry on the status of the Animal and Plant Health Inspection Service's revision of the "Fruit Fly Cooperative Control Program, Draft Environmental Impact Statement-1999". Preparation of the final environmental impact statement (EIS) is on indefinite hold at this time because of the United States Environmental Protection Agency's (EPA's) ongoing review of one of the proposed program pesticides, malathion.

Preliminary information received from the EPA indicates that the EPA is considering changing the registration status of malathion because of studies that suggest that it could be a low-level human carcinogen. Such a change would result in a change in the risk analysis, would require review of protection and mitigation measures, would result in the need to inform and involve the public about the change, and could require the preparation of a supplemental draft EIS.

I regret the delay and that I cannot be more specific about the date of the expected revision, but we believe it is in the best interests of all concerned to wait until EPA's findings are confirmed and made public before we continue. I am placing your name on the distribution list for documents and updates. If you have any questions relating to our process, you may call me at 301-734-8565.

Sincerely yours,

Harold T. Smith

Harold T. Smith
Senior Project Leader
Environmental Analysis and Documentation
Policy and Program Development



OFFICE OF ENVIRONMENTAL ANALYSIS AND DOCUMENTATION

To: Kris Balderston / Irma Martinez (456-2525)
Maria Echaveste / Marge Tarmey (456-1907)
Chris Jennings / Deborah Adler (456-5557)

From: Liz Summy,
Phone: 690-7431

Subject: West Nile-Like Virus Update

Pages : _____ (including Cover Sheet)

224 9694

Summary of the Workshop on West Nile Virus in the United States
Prepared by the Centers for Disease Control and Prevention (CDC)
November 16, 1999

The Workshop on West Nile Virus in the United States was held in Fort Collins, Colorado, from November 8-9, 1999. This workshop was cosponsored by the Centers for Disease Control and Prevention (CDC) and the United States Department of Agriculture (USDA), and was held at USDA's National Wildlife Research Center. There were more than 150 participants representing Federal, State, and local human and animal health officials; the World Health Organization; various academic and international authorities on arthropod-borne viral diseases; and the press.

The purpose of this meeting was to summarize data on the current outbreak of West Nile encephalitis (WNE) in the northeastern United States, and to develop a plan of action for future years. Following a morning plenary presentation on the WNE outbreak, participants were divided into three focus groups to discuss epidemiologic, entomologic, and laboratory issues. Each focus group was given a prepared list of topics for discussion. Each focus group presented an oral summation of their discussions to all attendees in a final plenary session. Diagnostic laboratory capacity-building for arthropod-borne viruses; improved information sharing among jurisdictions; and establishment of clinical and environmental surveillance programs throughout the region were identified as key needs.

A full report summarizing the outcomes and recommendations of the workshop is being prepared, and should be available in early 2000.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Chief of Staff

Washington, D.C. 20201

FACSIMILE

DATE: 1/24/00

TO: IRma Derorah
Kais

FAX#: 456-5557 & 456-2525

FROM: Liz Summy
Deputy Chief of Staff

Phone: 202/690-7431 Fax: 202/401-5783

COMMENTS:

Article From the MMWR (CDC)
Re: West-Nile Virus

4 Pages [including this cover]



January 21, 2000 / 49(02);25-8

Guidelines for Surveillance, Prevention, and Control of West Nile Virus Infection -- United States

The introduction of West Nile (WN) virus in the northeastern United States during the summer and fall of 1999 raised the issue of preparedness of public health agencies to handle sporadic and outbreak-associated vectorborne diseases (1-3). In many local and state health departments, vectorborne disease capacity has diminished. Because it is unknown whether the virus can persist over the winter, whether it has already or will spread to new geographic locations, and the public health and animal health implications of this introduction, it is important to establish proactive laboratory-based surveillance and prevention and control programs to limit the impact of the virus in the United States. On November 8 and 9, 1999, CDC and the U.S. Department of Agriculture (USDA) cosponsored a meeting of experts representing a wide range of disciplines to review the outbreak and to provide input and guidance on the programs that should be developed to monitor WN virus activity and to prevent future outbreaks of disease. This report summarizes the guidelines established during this meeting.

Surveillance

Because of bird migration patterns, enhanced surveillance is a priority in those states already affected or having a potential for being affected, including areas from Massachusetts to Texas along the Atlantic and Gulf coasts*. Active surveillance activities should be implemented through the winter in southern states where mosquito activity continues throughout the year, or implemented early in the spring in northern states where mosquito activity ceased with the onset of cold weather. Surveillance activities that should be emphasized in the catchment area include the following:

1. Active bird surveillance to detect the presence of and to monitor WN virus activity in both wild and sentinel bird populations (4). In particular, surveillance for dead crows may be a sensitive means to detect the presence of WN virus in an area.
2. Active mosquito surveillance to detect and monitor WN virus activity in mosquito populations and to help identify potential vectors (4).
3. Enhanced passive veterinary surveillance by general alerts to veterinarians for reporting neurologic illness in animals, with emphasis on horses as a backup system to monitor the extent of WN virus transmission outside the bird-mosquito cycle.
4. Enhanced passive human surveillance by general alerts to health-care providers to report viral encephalitis and, if resources permit, aseptic meningitis in humans.

Laboratory Diagnosis

Diagnosis of WN or other virus infections requires specialized laboratory diagnostic tests (4). Surveillance activities require the availability of laboratories that can provide the following minimal laboratory diagnostic support:

1. **Serology.** Using CDC and USDA protocols and reagents, the IgM and IgG enzyme-linked immunosorbent assays (ELISAs) for WN virus should be established in all state public health and veterinary laboratories to provide initial testing for human and animal specimens (5). State health, veterinary, and reference laboratories with biosafety level 3 facilities should have the capability to conduct neutralization tests to identify specific flavivirus antibodies.
2. **Virus isolation and detection.** Regional state public health laboratories and reference laboratories

with biosafety level 3 facilities should have virus isolation and identification capabilities. Selected other laboratories also should have reverse transcriptase polymerase chain reaction (RT-PCR) capability to detect viral RNA (5-7). Antigen-capture ELISAs to detect WN and other arboviruses in mosquito pools should be developed and made available to state and local laboratories. Regional state public health and reference laboratories should have the capability to use immunohistochemistry to detect virus in autopsy tissues.

Prevention and Control

Mosquito control is the most effective way to prevent transmission of WN and other arboviruses to humans and other animals, or to control an ongoing outbreak (4). Mosquito-control methods should include the following:

1. **Mosquito abatement districts.** The most effective and economical way to control mosquitoes is by larval source reduction through locally funded abatement programs that monitor mosquito populations and initiate control before disease transmission occurs. These programs also can be used as the first line emergency response for mosquito control if disease is detected in humans or domestic animals.
2. **Public outreach.** Public education about vectorborne diseases, particularly about modes of transmission and means of preventing or reducing risk for exposure, is a critical component of a prevention and control program.

Public Health Infrastructure

Effective surveillance, prevention, and control of vectorborne diseases, including WN virus, require designated resources in local and state health departments. Few state and local health departments have trained personnel or the resources to address adequately vectorborne diseases. At a minimum, each state health department should have functional arbovirus surveillance and response capability, including entomology and laboratory support. Geographic location and risk for WN transmission will determine the extent of a state's capability to handle arboviral diseases.

Interjurisdictional Data Sharing

WN fever is a zoonosis that affects numerous animal species, including humans. Effective surveillance and response will require coordination and data exchange between federal, state, and local agencies including departments of health, agriculture, and wildlife. A system of secure e-mail list servers and/or World-Wide Web sites will be necessary to facilitate the rapid and efficient exchange of data and other information between authorized users.

Research Priorities

Targets of applied research include understanding how and why the 1999 WN virus epidemic occurred, the public health and animal health implications of this introduction to the Western Hemisphere, and developing effective prevention strategies. High-priority research topics include defining current and future geographic distribution; bird migration as a mechanism of virus dispersal; vector relations and range; vertebrate host relations and range; virus persistence mechanisms; mosquito biology and behavior; mosquito control methods; mosquito surveillance methods; developing and evaluating disease prevention strategies; improving laboratory diagnostic tests; clinical spectrum of WN virus illness and long-term prognosis in humans; determining risk factors in enzootic areas; viral pathogenesis; genetic relations and the molecular basis of virulence; WN virus vaccine development for animals and humans; antiviral therapy for flaviviruses; and economic impact of the northeastern outbreak.

Reported by: Animal, Plant, and Health Inspection Svc, US Department of Agriculture. Div of Vector-Borne Infectious Diseases, National Center for Infectious Diseases, CDC.

Editorial Note:

The 1999 WN virus epidemic in the New York City (NYC) metropolitan area resulted in 61 human cases (55 confirmed and six probable), including seven deaths (1-3). Exotic zoo birds, American crows, and horses also were affected and had high death rates. In addition to NYC, epidemic/epizootic transmission was detected in surrounding New York counties. Emergency surveillance programs detected epizootic transmission in New Jersey and Connecticut but no cases in humans.

The surveillance and laboratory efforts required from NYC, surrounding counties, and adjacent states consumed considerable resources and demonstrated a need to enhance state and local health department programs to combat vectorborne infectious diseases. In December 1999, CDC announced the availability of fiscal year 2000 supplemental funds to support WN virus surveillance, prevention, and control projects. The 19 state and local health departments eligible to apply for these funds represent those areas where WN virus transmission already has occurred or where transmission would be more likely to occur based on bird migration patterns.

The focus of these cooperative agreements enables state and local health departments to increase surveillance activities and enhance laboratory capacity for detecting WN and other arboviruses. In the initial year, surveillance activities will be focused to determine whether WN virus survived the winter and, if so, to ascertain its geographic distribution along the Atlantic and Gulf coasts.

References

1. CDC. Outbreak of West Nile-like viral encephalitis--New York, 1999. *MMWR* 1999;48:845-9.
2. CDC. Update: West Nile-like viral encephalitis--New York, 1999. *MMWR* 1999;48:890-2.
3. CDC. Update: West Nile virus encephalitis--New York, 1999. *MMWR* 1999;48:944-6,955.
4. CDC. Guidelines for arbovirus surveillance in the United States. Fort Collins, Colorado: US Department of Health and Human Services, Public Health Service, CDC, 1993.
5. Lanciotti RS, Roehrig JT, Deubel V, et al. Origin of the West Nile virus responsible for an outbreak of encephalitis in the northeastern United States. *Science* 1999;286:2333-7.
6. Anderson JF, Andreadis TG, Vossbrinck CR, et al. Isolation of West Nile virus from mosquitoes, crows, and a Cooper's Hawk in Connecticut. *Science* 1999;286:2331-3.
7. Jia XY, Briese T, Jordan I, et al. Genetic analysis of West Nile New York 1999 encephalitis virus [Letter]. *Lancet* 1999;354:1971-2.

* Alabama, Connecticut, Delaware, District of Columbia, Florida, Georgia, Louisiana, Maine, Maryland, Massachusetts, North Carolina, New Jersey, New York, New York City, Pennsylvania, Rhode Island, South Carolina, Texas, and Virginia.

Disclaimer All *MMWR* HTML versions of articles are electronic conversions from ASCII text into HTML. This conversion may have resulted in character translation or format errors in the HTML version. Users should not rely on this HTML document, but are referred to the electronic PDF version and/or the original *MMWR* paper copy for the official text, figures, and tables. An original paper copy of this issue can be obtained from the Superintendent of Documents, U.S. Government Printing Office (GPO), Washington, DC 20402-9371; telephone: (202) 512-1800. Contact GPO for current prices.



Return To: [MMWR](#) [MMWR Home Page](#) [CDC Home Page](#)

****Questions or messages regarding errors in formatting should be addressed to mmwrq@cdc.gov.**

Page converted: 1/20/2000

TO: Maria Echaveste/Marge Tarmey 456-1907
Kris Balderston/Irma Martinez 456-2525
Chris Jennings/Devorah Adler 456-5557

FROM: Liz Summy (690-7431)

RE: West Nile Virus Update

PAGES: 4 (including cover sheet)

Here's another release from UC Irvine.
NIH ~~and~~ did not verify the stat.
CDC does not consider this "newsworthy"

Call w/questions.

Thanks

EMBARGOED UNTIL 4 P.M. PST THURSDAY, MAY 4, 2000

Contact: Tom Vasich
(949) 824-6455
tmvasich@uci.edu

Andrew Porterfield
(949) 824-3969
amporter@uci.edu

UC IRVINE RESEARCHERS DEVELOP RAPID DIAGNOSTIC TEST FOR WEST NILE VIRUS INFECTIONS

Test Using RNA Can Determine Infection in Hours; Useful for Elderly and Susceptible Patients

Irvine, Calif. — A test that can diagnose encephalitis caused by the West Nile virus within hours has been developed by a research team at UC Irvine's College of Medicine.

The test uses a sensitive technique that identifies viral genetic material in fluid that surrounds the spinal cord and brain. Conducted as part of a spinal tap, the test could be used by local hospitals and clinics to diagnose and treat patients with the disease more quickly, particularly those patients who are at greater risk of dying from the disease. The test findings appear in the May 6 edition of *The Lancet*.

Dr. Ian Lipkin, professor of microbiology and molecular genetics, neurology and anatomy and neurobiology, and Thomas Briesse, assistant professor of neurology and microbiology and molecular genetics, found that the technique—called a real-time polymerase chain reaction (PCR)—enabled identification within five hours of the West Nile virus in victims of last year's encephalitis outbreak in New York.

The UCI team identified West Nile virus as the cause of the outbreak. The virus has caused encephalitis in Europe, Africa and the Middle East but was never before seen in the United States. It is spread by mosquitoes and usually affects birds but has been known to infect people.

"We think this test can be used to diagnose encephalitis infections and quickly treat patients who have been infected by the West Nile virus without having to send samples to a far-away laboratory," Lipkin said. "The test also dramatically reduces the time needed for diagnosis and will be a valuable weapon against the disease, as during spring and summer there will be more of the mosquitoes responsible for spreading the virus."

- more -

NY VIRUS

2-2-2-2-2

The researchers used the real-time PCR test on spinal fluid taken from eight people who had been infected with the West Nile virus and found the virus in five of them; the remaining three did not have any detectable virus in their spinal fluid. Of the eight infected patients, all four who died from the disease had virus in their spinal fluid; among the four survivors, only one had detectable virus in spinal fluid. By comparison, spinal fluid samples from eight people with neurologic disease but no West Nile virus infection were free of the virus. The researchers suggest that detection of the virus in spinal fluid is correlated with a higher risk of dying from the disease.

PCR is a method by which pieces of genetic material (which could be either DNA or RNA) are mixed with enzymes that help produce large amounts of the material, facilitating detection of minute amounts of genetic material in a sample. This technique is commonly used in research, clinical laboratories and in police work. Lipkin and his colleagues found a way to use this method to more rapidly identify viral genetic material; other methods of identifying viruses can take days or weeks.

According to the National Institutes of Health, about 30 people out of 1,000 who are bitten by an infected mosquito will show symptoms of the disease, including fever, headache, skin rash, swollen lymph nodes, stiff neck, disorientation and convulsions. The elderly, the very young and people with weak immune systems are the most vulnerable to encephalitis.

The researchers are now establishing methods for treatment of West Nile virus infections and investigating the role of other viruses in cancer, rheumatologic and brain disorders.

Lipkin and Briese were assisted in their research by William Glass, graduate student at UCI; Drs. Leo Grady, Cinnia Huang and Susan Wong of the New York State Department of Health; and Drs. Robert Lanciotti and John Roehrig of the National Centers for Disease Control. The study is supported by grants from the National Institute of Neurological Diseases and Stroke.

###

A complete archive of press releases is available on the World Wide Web at
www.communications.uci.edu

New technique devised to detect West Nile virus

Release at 7:00 p.m. EDT

LONDON (Reuters) - American scientists have devised a new technique to detect West Nile virus which killed seven people in an unusual outbreak in New York last year.

The technique uses a sample of fluid taken through a spinal tap, or lumbar puncture, to detect the strain of the mosquito-borne disease.

"We have established a sensitive and specific real-time PCR method for detection of West Nile virus," Ian Lipkin, of the University of California, Irvine, said in a letter to The Lancet medical journal.

PCR, polymerase chain reaction, is a technique used to amplify a fragment of DNA to detect the viral sequence.

"Analysis of specimens obtained during the 1999 New York outbreak indicated the presence of viral sequences in cerebrospinal fluid of all of four individuals with fatal outcomes, and in only one of four who survived," Irvine and his colleagues added.

West Nile virus, which struck more than 60 people in New York, is usually found in Africa, West Asia and the Middle East.

The New York outbreak was the first in the Americas. The virus is spread from birds to mosquitoes to humans.

Government officials in the United States said last month that the virus will probably not be eliminated in the Western Hemisphere but added that it can be contained by controlling the mosquitoes that spread it.

Scientists have said children and the elderly are particularly vulnerable to the virus.

^REUTERS@

Reut16:18 05-04-00

REUTEviaNewsEDGE

KEYWORDS: HEALTH-VIRUS (EMBARGOED)

Copyright (c) 2000 Reuters

Received by NewsEDGE/LAN: 05/04/2000 4:22 PM

To: Kris Balderston / Irma Martinez (456-2525)
Maria Echaveste / Marge Tarmey (456-1907)
Chris Jennings / Devorah Adler (456-5557)

From: Liz Summy,
Phone: 690-7431

Subject: West Nile-Like Virus Update

Pages : 2 (including Cover Sheet)

WEST NILE VIRUS OUTBREAK
New York City, New York State, Connecticut, and New Jersey
Prepared by the Centers for Disease Control and Prevention (CDC)
November 5, 1999

- As of November 5, one new human case of West Nile infection has been confirmed in a patient from Queens. This patient is a 65 year old man with onset illness on September 22. The number of cases is now 60 with 7 deaths.
- No additional birds or mosquito pools have been identified as positive.
- On November 8 and 9, the Division of Vector-Borne Infectious Diseases, NCID, CDC, will host a workshop with approximately 40 experts to discuss short- and long-term issues related to the prevention and control of this virus.
- The *Morbidity and Mortality Weekly Report* October 22 update is the most recent and may be accessed at: <http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4841a3.htm>
- Information on the outbreak is also available at:
<http://www.cdc.gov/od/oc/media/archives.htm>.

To: Kris Balderston / Irma Martinez (456-2525)
Maria Echaveste / Marge Tarmey (456-1907)
Chris Jennings / Devorah Adler (456-5557)

From: Liz Summy,
Phone: 690-7431

Subject: West Nile-Like Virus Update

Pages : 2 (including Cover Sheet)

WEST NILE VIRUS OUTBREAK
New York City, New York State, Connecticut, and New Jersey
Prepared by the Centers for Disease Control and Prevention (CDC)
November 5, 1999

- As of November 5, one new human case of West Nile infection has been confirmed in a patient from Queens. This patient is a 65 year old man with onset illness on September 22. The number of cases is now 60 with 7 deaths.
- No additional birds or mosquito pools have been identified as positive.
- On November 8 and 9, the Division of Vector-Borne Infectious Diseases, NCID, CDC, will host a workshop with approximately 40 experts to discuss short- and long-term issues related to the prevention and control of this virus.
- The *Morbidity and Mortality Weekly Report* October 22 update is the most recent and may be accessed at: <http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4841a3.htm>
- Information on the outbreak is also available at:
<http://www.cdc.gov/od/oc/media/archives.htm>.

10/10/93 WED 10:40 FAX 202 4019793 CHIEF OF STAFF 001

To: Kris Balderston / Irma Martinez (456-2525)
Maria Echaveste / Marge Tarmey (456-1907)
Chris Jennings / Devorah Adler (456-5557)

From: Liz Summy,
Phone: 690-7431

Subject: West Nile-Like Virus Update

Pages : 2 (including Cover Sheet)

WEST NILE VIRUS OUTBREAK

New York City, New York State, Connecticut, and New Jersey
Prepared by the Centers for Disease Control and Prevention (CDC)
November 3, 1999

- As of November 3, no additional human cases of West Nile infection have been confirmed. The number of cases remains at 59 with 7 deaths.
- West Nile virus has been identified in 183 birds collected in the Bronx, Brooklyn, Manhattan, Queens, and Staten Island in New York City; ***Columbia**, Nassau, Orange, Rockland, Saratoga, Suffolk, and Westchester counties in New York; Bergen, Burlington, Cumberland, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Union, and Warren counties in New Jersey; in Fairfield County in Connecticut, and in Baltimore County in Maryland.
- No additional mosquito pools have been identified as positive.
- West Nile virus has been identified in one stray cat from Union County, New Jersey. (Warm-blooded animals, other than birds, that are exposed to and bitten by infected vectors such as mosquitoes, may become infected with the virus. There is no documented evidence of person-to-person, animal-to-animal, or animal-to-person transmission of West Nile virus. Normal veterinary infection control precautions should be followed when caring for an animal suspected to have this or any viral infection.)
- CDC has confirmed as positive, brain tissue from a horse in Suffolk County, New York.
- On November 8 and 9, the Division of Vector-Borne Infectious Diseases, NCID, CDC, will host a workshop with approximately 40 experts to discuss short- and long-term issues related to the prevention and control of this virus.
- The *Morbidity and Mortality Weekly Report* October 22 update is the most recent and may be accessed at: <http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4841a3.htm>
- Information on the outbreak is also available at: <http://www.cdc.gov/od/oc/media/archives.htm>.

* New counties in the listing are shown in bold.

To: Kris Balderston / Irma Martinez (456-2525)
Maria Echaveste / Marge Tarmey (456-1907)
Chris Jennings / Devorah Adler (456-5557)

From: Liz Summy,
Phone: 690-7431

Subject: West Nile-Like Virus Update

Pages : 11 (including Cover Sheet)

WEST NILE VIRUS OUTBREAK
New York City, New York State, Connecticut, and New Jersey
Prepared by the Centers for Disease Control and Prevention (CDC)
October 21, 1999

- As of October 21, no additional human cases of West Nile infection have been confirmed. The number of cases remains at 56 with 7 deaths.
- West Nile virus has been identified in 141 birds collected in the Bronx, Brooklyn, Manhattan, Queens, and Staten Island in New York City; Nassau, Orange, Rockland, Saratoga, Suffolk, and Westchester counties in New York; Bergen, Burlington, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Union, and Warren counties in New Jersey; and in Fairfield County in Connecticut (no new geographical areas).
- No additional mosquito pools have been identified as positive.
- On October 19, New York State Agriculture Commissioner, Nathan L. Rudgers, issued a press release concerning the deaths and illnesses in horses in Long Island, New York. This release is available on the Internet at <http://www.agmkt.state.ny.us/scripts/PressReleaseListings.asp>.
- The U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) has sent a letter and two factsheets to State agriculture commissioners and State veterinarians in Connecticut, Rhode Island, New York, New Jersey, Delaware, Pennsylvania, Maryland, Virginia, Kentucky, West Virginia, North Carolina, South Carolina, Georgia, Florida, Tennessee, and Ohio to inform them of the findings of WNV in horses, and of actions being taken by APHIS to address the situation. The factsheets are attached. The text of the letter follows:

I am writing to inform you that, working together with the New York State Department of Agriculture and the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, the U.S. Department of Agriculture has confirmed that a number of horse deaths and illnesses in the Riverhead area of Long Island, New York, are a result of West Nile virus infection. At this time, 22 horses have exhibited clinical signs of this disease; 13 of these have either died or been euthanatized.

We believe that West Nile virus, never before detected in the Western Hemisphere, was introduced accidentally into the United States. Subsequently, the virus was transmitted to birds by infected mosquitoes and from infected mosquitoes to humans and other animals. There is no evidence that this virus can be transmitted directly from infected horses to humans or to other horses or pets. The virus is spread by mosquitoes that have acquired the virus from infected wild birds only. Based upon published scientific information, viremias in horses are inadequate to infect mosquitoes. Accordingly, restricting the movement of horses

is unnecessary to control virus transmission.

Currently, mosquito numbers and activity are decreasing due to cooler temperatures; we anticipate that virus transmission will decrease as well. In the meantime, scientists with the Agricultural Research Service and our Agency are developing West Nile virus diagnostic tests, conducting experimental inoculation studies to determine the effects of the disease on U.S. livestock and poultry, and working with State counterparts and cooperating Federal agencies to conduct surveillance studies. In addition, we are recommending that horses be stabled and protected from biting insects, especially during the times of mosquito activity.

Please feel free to contact Dr. Joseph Anelli, Chief Staff Veterinarian with our Agency's Veterinary Services, Emergency Programs staff, with any additional questions or concerns regarding the equine disease situation. The telephone number is (301) 734-8073. All public health inquiries should be directed to your State public health department.

Sincerely,

/s/

Alfonso Torres
Deputy Administrator
Veterinary Services

- On October 22, 1999, New York State will dismantle its hotline and command post. No more daily calls will be conducted with the affected States.
- On November 8 and 9, the Division of Vector-Borne Infectious Diseases, NCID, CDC, will host a workshop with approximately 40 experts to discuss short-and long-term issues related to the prevention and control of this virus.
- The *Morbidity and Mortality Weekly Report* October 22 update is attached.
- Information on the outbreak is also available at:
<http://www.cdc.gov/od/oc/media/archives.htm>.

*Fact Sheet
Veterinary Services*

*USDA
Animal and Plant Inspection
Services Oct 1999*

Q&A's About West Nile Virus

Q. What is West Nile virus?

A. West Nile is a type of virus that causes encephalitis, or inflammation of the brain. The virus has been found in Africa, western Asia, the Middle East, and the Mediterranean region of Europe.

The virus is transmitted by mosquitos and ticks that acquire it from infected birds. Migrating birds may play a role in spreading the disease.

Q. Why is the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) involved?

A. Because this virus is transmitted by mosquitoes, it has potential to affect livestock and poultry. APHIS is the agency within USDA responsible for protecting the health of U.S. livestock.

The National Veterinary Services Laboratories, the only Federal facilities in the United States dedicated to the diagnosis of both domestic and foreign animal diseases, provides support for the APHIS programs designed to protect the health of the Nation's livestock and poultry. NVSL uses state-of-the-art diagnostic techniques to rapidly determine what disease agent is present and what risk it presents to U.S. animal health. Because the West Nile virus was killing birds, the Bronx Zoo went to NVSL for assistance in isolating the cause of the outbreak.

Q. How did APHIS help the Health and Human Service's Centers for Disease Control and Prevention (CDC) identify the virus?

A. On September 14, 1999, NVSL isolated a virus from neurological and other tissues of flamingos and trogons (pheasants) from the Bronx Zoo and crows from elsewhere in the New York City area. Samples

of the isolated virus were sent to CDC for identification. On September 27, CDC officials announced that the isolated virus was very similar to that of the West Nile virus, previously unseen in the Western Hemisphere. CDC connected this disease to the encephalitis outbreak that has killed 6 people and infected at least 55 in the New York City area. It has also been identified in crows and wild birds in Connecticut and New Jersey.

Q. What other monitoring activities is APHIS undertaking?

A. The CDC, U.S. Geological Survey's National Wildlife Health Laboratory, and USDA are cooperating to survey for West Nile virus in a wide range of wild birds. This Federal working group, in conjunction with relevant State agencies, will gather and analyze surveillance data to define the extent to which the virus is distributed in mosquito and bird populations outside the affected area. Intensified surveillance for infected birds and mosquitoes may detect the virus in an even broader geographic range. In addition, APHIS will continue to survey and monitor horses in the affected area.

Q. What other actions is USDA taking?

A. APHIS officials are working with Federal, State, and local health and agricultural officials to coordinate efforts to ensure that the West Nile virus outbreak in the New York City area does not become a significant animal health problem as well. APHIS officials are responding to the situation by developing a diagnostic test for the virus, conducting inoculation studies to determine the effects on U.S. livestock, and developing a virus surveillance plan.

USDA's Agricultural Research Service will conduct inoculation studies with turkeys. NVSL will do the same with chickens. NVSL's Foreign Animal Disease Diagnostic Laboratories will conduct studies with horses as well. All of these efforts should aid scientists in learning more about the disease and how it affects different species.

Q. Is this outbreak the result of a bioterrorist attack?

A. Based on characteristics of the outbreak, APHIS and other agencies have found no reason to believe that this disease outbreak was caused by a bioterrorist attack.

Q. Are animals other than birds affected by the virus?

A. A cluster of horses in the Riverhead area of Long Island, NY, has shown signs of encephalitis and West Nile virus was positively identified as the cause of the infection. Clinical signs of the virus in horses may include depression, listlessness, stumbling and incoordination, weakness of limbs, ataxia, convulsions, circling, hyperexcitability, partial paralysis, coma, or death. A fever may or may not be present. Experimental tests have indicated that sheep, chickens, and pigs could be affected by the virus, but no cases in these animals have been reported in New York or anywhere else in the United States. In tests, the virus caused pregnant sheep to abort. The tests also resulted in the death of young chickens. Cows may show antibodies to the virus, which means they have contracted it without showing any clinical signs or becoming ill.

Q. What precautions can be taken to protect animals from this virus?

A. Preventing exposure of animals to mosquitoes is essential. Horses should be stabled inside during peak mosquito feeding times (dusk and dawn). Insect repellents are recommended.

Birds can also be protected by limiting exposure to mosquitoes. In areas reporting large numbers of bird deaths, investigations are being conducted and samples collected to determine the cause of the deaths. People finding dead birds should notify local health officials.

No vaccine and no specific treatment are available for West Nile virus. Because mosquito numbers and activity are declining due to decreasing temperatures, we expect virus transmission to decline as well.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2500 (voice and TDD).

Q. Must horses affected by the virus be euthanized?

A. No. Because horses are terminal hosts, it is highly unlikely that mosquitoes feeding on an infected horse would ingest enough of the virus to transmit it to other animals. This makes it unnecessary to euthanize sick horses that could recover.

Q. Will horses affected by the virus be quarantined?

A. No. The fact that infected horses do not appear to be a carrier for the disease makes it unlikely a quarantine would be necessary.

Q. Are dogs and cats affected by the virus?

A. Dogs and cats do not appear to be affected by the virus.

Q. What is the horse mortality rate in the affected area so far?

A. As of October 18, a reported 22 horses had shown obvious clinical signs of possible infection. Of those, 13 have died or been euthanized and the others are recovering. Two other horses connected with Belmont Park in Nassau County, NY, showed some signs of this disease but recovered within 4 to 5 days. This does not rule out the possibility that other horses may be infected with the virus, but so far only a minimal number of illnesses have been reported. It may be that many horses recover from infection without showing signs of illness.

Q. Are there potential trade implications associated with this situation?

A. Hong Kong already has shut out U.S. poultry exports, even though there have been no clinical signs of the virus in turkeys or chickens. Other countries may be considering similar actions.

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5984 (voice and TDD). USDA is an equal opportunity provider and employer.

West Nile Virus

West Nile is a type of virus that causes encephalitis, or inflammation of the brain. The virus has been found in Africa, western Asia, the Middle East, and the Mediterranean region of Europe.

The virus is transmitted by mosquitos that acquire it from infected birds. There is no documentation that infected horses can spread the virus to uninfected horses or other animals. Migrating birds may play a role in spreading the disease.

Clinical signs of West Nile virus in horses may include depression, listlessness, stumbling and incoordination, weakness of limbs, ataxia, convulsions, circling, hyperexcitability, partial paralysis, coma, or death. Fever may or may not be present.

West Nile Virus in the United States

On September 14, 1999, the National Veterinary Services Laboratories (NVSL) of the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) isolated a virus from neurological and other tissues of flamingos and trogons (pheasants) from the Bronx Zoo and crows from the New York City area.

Samples of the isolated virus were sent to the Department of Health and Human Services' Centers for Disease Control and Prevention (CDC) for identification. On September 27, CDC officials announced that the isolated virus was very similar to that of the West Nile virus, a disease previously unseen in the Western Hemisphere. CDC connected this disease to an encephalitis outbreak that has killed 6 people and infected at least 55 others in the New York City area. It has also been identified in crows and wild birds in Connecticut and New Jersey.

Because this virus is transmitted by mosquitoes, it has the potential to affect livestock and poultry. In the Riverhead area of Long Island, NY, a reported 22

horses have shown signs of possible encephalitis. Of the 22 horses in Riverhead, 13 have died or been euthanized. The others recovered. West Nile virus was positively identified as the cause of the infection.

The role of commercial poultry in maintaining or transmitting the virus is not thoroughly understood. According to scientific literature, chickens can develop a short-lived though not deadly infection, but clinical signs are not seen.

Federal Actions to Protect Agriculture

Any horses showing clinical signs within the three currently affected States or in any other States, will be investigated by APHIS' Veterinary Services (VS) program as a potential foreign animal disease. VS will be on the lookout for West Nile virus activity along the Atlantic seaboard. VS is also developing a diagnostic test for the virus and a surveillance program for horses.

USDA's Agricultural Research Service will conduct inoculation studies with turkeys. NVSL will do the same with chickens. NVSL's Foreign Animal Disease Diagnostic Laboratories will conduct studies with horses as well.

Although no clinical signs of the virus have been reported in U.S. poultry, VS will treat all situations, where birds show neurological signs, as a potential for foreign animal disease. This will allow NVSL to rule out exotic poultry diseases, such as Newcastle disease and highly pathogenic avian influenza, before testing for West Nile. If NVSL suspects West Nile virus from a poultry sample, they will forward the sample to CDC for confirmation.

The CDC, the U.S. Geological Survey's National Wildlife Health Laboratory, and USDA are cooperating to survey for the virus in a wide range of wild birds. This Federal working group, in conjunction with relevant State agencies, will gather and analyze surveillance data to define the extent to which the virus is distributed in mosquito and bird populations outside the affected area.

How You Can Protect Your Animals

You can decrease the chances of your animals being exposed to the virus. Preventing exposure of animals to mosquitoes is essential. Horses should be stabled inside during peak mosquito feeding times (dusk and dawn). Insect repellents are recommended.

No vaccine or treatment is available for the virus. Because mosquito numbers and activity are declining due to decreasing temperatures, we expect virus transmission to decline as well.

Additional Information

For more information about West Nile virus, contact

USDA, APHIS, Veterinary Services
4700 River Road, Unit 41
Riverdale, MD 20737-1231
Phone: (301) 734-8073
Fax: (301) 734-7817

For more information about human health issues related to West Nile virus, contact the New York State Health Department at (800) 926-7366 or check the CDC Website (www.cdc.gov).

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Poliomyelitis Eradication — Continued

eradication has been the participation of eight officers in the CDC Stop Transmission of Polio (STOP) initiative. STOP mobilizes additional trained personnel for 3-month polio eradication assignments in high-priority countries. STOP officers in Nepal worked with RSOs to strengthen AFP surveillance, plan NIDs and sub-NIDs, and mobilize other sectors in support of polio eradication.

Fewer than 440 days remain to reach the target for global polio eradication by the end of 2000. Substantial and rapid improvement in NIDs and AFP surveillance has brought Nepal closer to the goal of eradication^{**}. Priorities for polio eradication in Nepal in 1999 and 2000 include 1) execution of high-quality NIDs and supplemental vaccination campaigns targeting high risk areas and populations (five monthly rounds will be synchronized with India during November 1998–March 2000); 2) maintenance of sensitive AFP surveillance, especially in the densely populated districts bordering India; and 3) improving routine OPV3 coverage.

References

1. World Health Assembly. Global eradication of poliomyelitis by the year 2000. Geneva, Switzerland: World Health Organization, 1988; resolution no. 41.28.
2. Raj C, Amornkul PN, Bohara R, et al. Update on polio eradication: global and South-East Asia regional status and progress in Nepal. *Nepal Medical College Journal* 1999;1:57–61.
3. Department of Health Services. His Majesty's Government of Nepal, Ministry of Health. Annual report. Kathmandu, Nepal: Ministry of Health, 1997–1998.
4. United Nations Children's Fund, World Health Organization, Child Health Division, Department of Health Services. His Majesty's Government of Nepal, Ministry of Health. Routine immunization and NID coverage survey report 1998. Kathmandu, Nepal: Ministry of Health, 1999.
5. CDC. Progress toward global poliomyelitis eradication—1997–1998. *MMWR* 1999;48:416–21.
6. CDC. Progress toward poliomyelitis eradication—South East Asia Region, 1997–1998. *MMWR* 1999;48:230–9.
7. CDC. Progress toward poliomyelitis eradication—India, 1998. *MMWR* 1998;47:778–81.
8. CDC. Progress toward poliomyelitis eradication—Bangladesh, 1995–1997. *MMWR* 1998;47:31–5.

^{**}The polio eradication initiative in Nepal is supported by His Majesty's Government of Nepal, WHO, Rotary International, United Nations Children's Fund, U.S. Agency for International Development, the governments of Norway and Japan, and CDC.

Update: West Nile Virus Encephalitis — New York, 1999

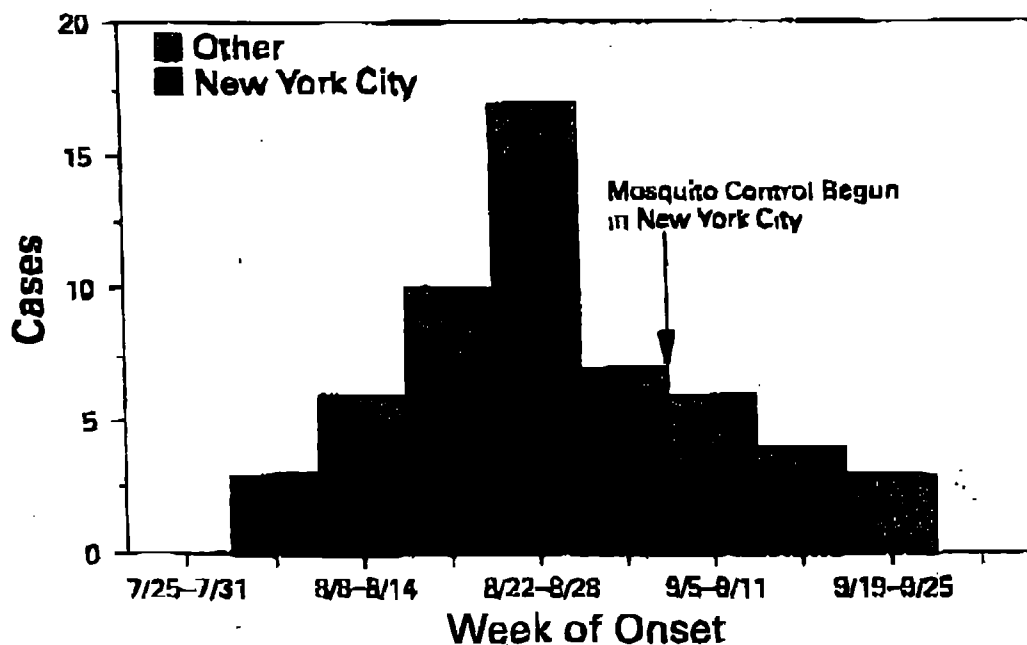
The West Nile virus (WNV) encephalitis outbreak continues to wane in the Northeast with the onset of cooler temperatures and continued vector-control operations. This report updates the progress of the ongoing investigation. Since the last published update (1), five additional domestic human cases and one international case have been identified. As of October 19, 56 (31 confirmed and 25 probable) cases of WNV infection have been identified, including seven deaths (Figure 1). The date of onset of the latest cases was September 22. The international case was a Canadian citizen who had visited the New York City (NYC) area in late August who had onset of fatal encephalitis on September 5. Active surveillance for human encephalitis cases in Connecticut and New Jersey has not detected any WNV cases.

Surveillance for WNV in mosquitoes and birds continues. As of October 19, 11 pools collected during September 12–October 4 of *Culex* spp. mosquitoes, positive for WNV, have been identified from NYC and Nassau and Suffolk counties. Pools of

Vol. 48 / No. 41

MMWR

945

*West Nile Encephalitis — Continued***FIGURE 1. Number of seropositive cases of West Nile virus, by week of onset — New York, 1999**

Culex and *Aedes vexans* mosquitoes collected during early to mid-September in Hudson County, New Jersey, tested positive for WNV by reverse transcriptase polymerase chain reaction (RT-PCR). Birds that tested positive for WNV now have been identified by RT-PCR on postmortem brain tissue from New York (NYC boroughs of Bronx, Brooklyn, Manhattan, Queens, and Staten Island; and Nassau, Orange, Rockland, Saratoga, Suffolk, and Westchester counties), New Jersey (Bergen, Burlington, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Union, and Warren counties), and Connecticut (Fairfield County). In addition, postmortem brain tissue from birds from Fairfield and New Haven counties, Connecticut, have been reported as positive in culture for WNV by the Connecticut Department of Health. Although most WNV-positive birds have been American crows, infections also have been confirmed in other native species, including the ring-billed gull, yellow-billed cuckoo, rock dove, sandhill crane, fish crow, blue jay, bald eagle, laughing gull, black-crowned night heron, mallard, American robin, red-tailed hawk, and broad-winged hawk.

Laboratory studies conducted at CDC have identified the etiologic agent responsible for the human arboviral encephalitis outbreak in the NYC area as WNV. Confirmation of the genetic identity as WNV has been performed independently by collaborators at the United States Army Medical Research Institute for Infectious Diseases. WNV-specific gene sequences have been amplified by RT-PCR performed on RNA extracted from autopsy specimens (six case-patients). Sequences of genome fragments of WNV isolated from dead birds and mosquitoes are identical to gene sequences from the human autopsy specimens. Antigenic mapping of these isolates

West Nile Encephalitis -- Continued

has been performed using a panel of monoclonal antibodies (Mabs) developed by CDC or provided by collaborators at the University of Queensland, Australia. These envelope (E)-glycoprotein specific Mabs, capable of distinguishing WN, Kunjin, and St. Louis encephalitis viruses, confirmed the sequence identification of these isolates as WNV.

Reported by: A Fine, MD, M Layton, MD, J Miller, MD, D Cimini, MPH, MC Vargas, DVM, A Inglesby, MD, the New York City Outbreak Investigation Team, N Cohen, MD; I Weisfuse, MD; A Ramon, MD, I Poshni, PhD, H Striding, MPH, New York City Dept of Health, T McNamara, DVM, Wildlife Conservation Society, New York City, A Huang, MD, A Rosenberg, MD, P Yang-Lewis, MPH, HN Adel, MD, Westchester County Health Dept, New Rochelle; M Sherman, G Terillion, B Smith, R Porter, A Greenberg, MD, KA Gaffney, MD, Nassau County Dept of Health and Public Works; A Novello, MD, D White, PhD, D Morse, MD, K Spitalny, MD, R Gallo, S Wong, MD, L Grady, MD, M Eidson, DVM, B Wallace, MD, P Smith, MD, State Epidemiologist, New York State Dept of Health, M Carter, MD, R Nelson, DVM, J Hadlor, MD, State Epidemiologist, Connecticut Dept of Public Health; T Andreadis, PhD, Connecticut Agricultural Experiment Station, J Blumenstock, J Degraaf, F Sornage, DVM, C Campbell, DVM, J Brook, MD, M Gerwell, MD, D Adams, K Bruder, R Kent, R Eisner, DVM, N Halpern, DVM, New Jersey Dept of Agriculture; D Roscoe, DVM, New Jersey Dept of Environmental Protection; E Bresnitz, MD, State Epidemiologist, New Jersey Dept of Health and Senior Svcs, W Crans, PhD, Rutgers Univ, New Brunswick, New Jersey, J Mackenzie, PhD, R Hall, PhD, J Sherret, MSc, Univ of Queensland, Australia, H Arnsdo, PhD, Laboratory Centre for Disease Control, Health Canada, J Smith, PhD, M Parker, PhD, K Steele, DVM, United States Army Medical Research Institute for Infectious Diseases; National Veterinary Svcs Laboratories, Animal and Plant Health Inspection Svc, US Dept of Agriculture, Ames, Iowa, Infectious Disease Pathology Activity, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Arbovirus Diseases Br, Div of Vector-Borne Infectious Diseases, National Center for Infectious Diseases; and EIS officers, CDC.

Editorial Note: The dates of onset of illness for laboratory-positive cases of WNV infection suggest that the outbreak peaked in late August. There have been no recognized cases of WNV infection with an onset date after September 22. WNV encephalitis has an incubation period of 5-15 days. The latest cases occurred outside NYC in Nassau and Westchester counties, which implemented mosquito-control measures later than NYC. Collectively, these data suggest that control measures, combined with cooler temperatures, have been effective in reducing the transmission cycle in nature and limiting further illnesses in humans. However, it is important to continue to recommend personal protective measures during outdoor activity at dusk and at night until the onset of cold weather in the affected areas (1).

The identification of WNV in birds from Orange and Saratoga counties, New York City, and Burlington County, New Jersey, may represent an extension northward and southward of the known area of natural transmission between birds and mosquitoes, but for this to be the case, either demonstration of WNV in vector mosquito populations or demonstration of neutralizing antibodies against WNV in resident birds is needed because these birds may have been infected elsewhere. The current known geographic distribution of infected dead birds is in counties surrounding the western half of Long Island Sound.

Serum samples collected from migrant and resident birds in several states will be analyzed for antibody to WNV. States included in this survey are New York, New Jersey, Maryland, Virginia, North Carolina, South Carolina, Georgia, and Florida. Collaborators in this survey include university ornithologists, state wildlife biologists, and state health departments. In addition, wildlife and health officials in all mid-Atlantic and southeastern states have been alerted to investigate reports of unusual clusters of dead birds.

(Continued on page 955)

West Nile Encephalitis — Continued

All state epidemiologists have been informed of the characteristics of this outbreak and encouraged to enhance surveillance for cases of human encephalitis. Monitoring of mosquitoes and birds has been increased in several states with existing vector control programs. Training to institute programs for arbovirus and mosquito vector surveillance will be offered to states without programs, beginning with Atlantic coast states. In addition, the emerging infections sentinel networks coordinated by the Infectious Diseases Society of America (IDSA EIN) and the International Society of Travel Medicine (GeoSentinel) are assisting case-finding efforts to define the extent of the outbreak in the United States.

A previous publication indicated that the New York virus was more closely related to Kunjin virus (2). Data in this report based on phylogenetic analysis comparing published E-glycoprotein sequences from WNVs and other flaviviruses, including Kunjin, St. Louis encephalitis, and Japanese encephalitis indicate that the New York virus is WN. Complete genome sequencing of multiple WNV isolates is in progress.

References

1. CDC. Update: West Nile-like viral encephalitis—New York, 1999. *MMWR* 1999;48:880-2.
2. Briese T, Jia XY, Huang C, Grady LJ, Lipkin WI. Identification of a Kunjin/West Nile-like flavivirus in brains of patients with New York encephalitis [Letter]. *Lancet* 1999;354:1261-2.

Notice to Readers**Update: Changes to *MMWR*
Continuing Education Data Management System**

MMWR Recommendations and Reports first published a Continuing Education (CE) component on October 16, 1998. Since then, eight additional CE programs have been published in *MMWR Recommendations and Reports* to provide continuing medical education (CME), continuing nursing education (CNE), and continuing education unit (CEU) credits for physicians, nurses, and other health-care professionals at no cost to the user. Approximately 35,000 examinations have been submitted in print or electronically by *MMWR* readers. Because of the unexpectedly large response to the program, reviewing print examinations and mailing certificates to *MMWR* readers have been delayed.

To address the backlog in processing previously submitted examinations, and to effectively manage a program of this size, *MMWR* has installed a new examination management system. The new system speeds processing of examinations submitted by mail and allows the user to complete tests and receive credit through the World-Wide Web (<http://www2.cdc.gov/mmwr/cme/conted.html>). To reduce the costs of this free service, *MMWR* readers are encouraged to use the online examinations. The new system will require prior users of the online system to re-register. Users who registered and took examinations online before October 21, 1999, will not be able to view their complete transcripts until the old database is merged with the new database, which should be completed by January 2000. Questions concerning the change should be sent by e-mail to the continuing education coordinator at mmwrce@cdc.gov.

TO: Kris Balderston/Irma Martinez (456-2525)
Chris Jennings/Devorah Adler (456-5557)
Maria Echaveste/Marge Tarmey (456-1907)

FROM: Liz Summy
Deputy Chief of Staff, HHS
690-7431

RE:

West Nile-like Virus Update 10/19

Pages:

2 (Including Cover)

WEST NILE VIRUS OUTBREAK
New York City, New York State, Connecticut, and New Jersey
Prepared by the Centers for Disease Control and Prevention (CDC)
October 19, 1999

- As of October 19, no additional human cases of West Nile infection have been confirmed. The number of cases remains at 56 with 7 deaths.
- West Nile virus has been identified in 113 birds collected in the Bronx, Brooklyn, Manhattan, Queens, and Staten Island in New York City; Nassau, Orange, Rockland, Saratoga, Suffolk, and Westchester counties in New York; Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris and Union counties in New Jersey; and in Fairfield County in Connecticut.
- No new positive mosquito pools have been identified as positive.
- On Monday, October 18, 1999, Dr. Duane Gubler, Ms. Mel Fernandez, and Ms. Rosemary Ramsey, of CDC's National Center for Infectious Diseases (NCID), and Ms. Francie de Peyster of the CDC/Washington Office provided a telephone update on West Nile virus in New York to Mr. Kevin Casey, legislative assistant to Congressman Joseph Crowley.
- Preliminary serologic evidence indicates that horses on Long Island, New York, have experienced infection with West Nile or a closely related flavivirus. New York State is expected to release information on October 20 concerning these findings.
- On November 8 and 9, the Division of Vector-Borne Infectious Diseases, NCID, CDC, will host a workshop with approximately 40 experts to discuss short-and long-term issues related to the prevention and control of this virus.
- *Morbidity and Mortality Weekly Report (MMWR)* updates will be prepared as substantive information becomes available. The next *MMWR* update is scheduled for 10/22/99. The latest *MMWR* dated 10/8/99 can be viewed at:
<http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4839a5.htm>
- Information on the outbreak is also available at:
<http://www.cdc.gov/od/oc/media/archives.htm>.

WEST NILE VIRUS OUTBREAK
New York City, New York State, Connecticut, and New Jersey
Prepared by the Centers for Disease Control and Prevention (CDC)
October 20, 1999

- As of October 20, no additional human cases of West Nile infection have been confirmed. The number of cases remains at 56 with 7 deaths.
- West Nile virus has been identified in 137 birds collected in the Bronx, Brooklyn, Manhattan, Queens, and Staten Island in New York City; Nassau, Orange, Rockland, Saratoga, Suffolk, and Westchester counties in New York; Bergen, Burlington, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Passaic, Somerset, Union, and Warren counties in New Jersey; and in Fairfield County in Connecticut.
- Two additional mosquito pools have been identified as positive in New York State (no new counties).
- On October 19, New York State Agriculture Commissioner, Nathan L. Rudgers, issued a press release stating that a number of deaths and illnesses in horses in Long Island, New York "are likely the result of West Nile-like virus." This release is available on the Internet at <http://www.agmkt.state.ny.us/scripts/PressReleaseListings.asp>.
- On November 8 and 9, the Division of Vector-Borne Infectious Diseases, NCID, CDC, will host a workshop with approximately 40 experts to discuss short-and long-term issues related to the prevention and control of this virus.
- *Morbidity and Mortality Weekly Report (MMWR)* updates will be prepared as substantive information becomes available. The next *MMWR* update is scheduled for 10/22/99. The latest *MMWR* dated 10/8/99 can be viewed at:
<http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4839a5.htm>.
- Information on the outbreak is also available at:
<http://www.cdc.gov/od/oc/media/archives.htm>.

TO: Kris Balderston/Irma Martinez (456-2525)
Chris Jennings/Devorah Adler (456-5557)
Maria Echaveste/Marge Tarmey (456-1907)

FROM: Liz Summy
Deputy Chief of Staff, HHS
690-7431

RE: West Nile-Like Virus

Pages: 2 (Including Cover)

WEST NILE-LIKE VIRUS OUTBREAK
New York City, New York State, Connecticut, and New Jersey
Prepared by the Centers for Disease Control and Prevention (CDC)
October 15, 1999

- As of October 15, no additional human cases of West Nile-like infection have been confirmed. One human case which had previously been reported as positive by laboratory testing has now been re-classified as negative for West Nile-like infection. The original result was found to be a false-positive after follow-up testing on a second serum specimen. The number of cases is, therefore, reduced from 56 to 55 with 7 deaths. Of the 55 cases categorized as "confirmed," 32 have been definitively identified as WNLV; 23 remain "probable," pending results of follow-up laboratory testing.
- West Nile-like virus has been identified in 110 birds collected in the Bronx, Brooklyn, Manhattan, Staten Island and Queens in New York City; Nassau, Orange, Rockland, Saratoga, Suffolk, and Westchester counties in New York; Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, and Union Counties in New Jersey; and Fairfield County in Connecticut.
- A mosquito pool of *Aedes vexans*, collected in Hudson County, New Jersey on September 9, has tested positive. A mosquito pool of *Culex pipiens* collected in Hudson County, New Jersey, on September 28 previously tested positive.
- On Thursday, October 14, 1999, Dr. Joseph McDade, Dr. Duane Gubler, and Ms. Rosemary Ramsey, of CDC's National Center for Infectious Diseases, and Ms. Francie de Peyster of the CDC/Washington office, provided a telephone briefing on this WNLV outbreak to Ms. Rachel Simmons and Mr. Stuart Gottlieb, legislative assistants of Senator Charles E. Schumer. We discussed how CDC and other agencies coordinate outbreak responses and approaches used to determine the cause of an outbreak.
- *Morbidity and Mortality Weekly Report (MMWR)* updates will be prepared as substantive information becomes available (an update will be prepared for Friday, October 22). The latest *MMWR* dated 10/8/99 can be viewed at:
<http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4839a5.htm>
- Information on the outbreak is also available at:
<http://www.cdc.gov/od/oc/media/archives.htm>

WEST NILE VIRUS OUTBREAK
New York City, New York State, Connecticut, and New Jersey
Prepared by the Centers for Disease Control and Prevention (CDC)
October 28, 1999

- As of October 28, no additional human cases of West Nile infection have been confirmed. The number of cases remains at 59 with 7 deaths.
- West Nile virus has been identified in 160 birds collected in the Bronx, Brooklyn, Manhattan, Queens, and Staten Island in New York City; Nassau, Orange, Rockland, Saratoga, Suffolk, and Westchester counties in New York; Bergen, Burlington, Cumberland, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Union, and Warren counties in New Jersey; in Fairfield County in Connecticut, and in ***Baltimore** County in Maryland.
- Four new mosquito pools have been identified as positive (from Queens and Nassau County; no new geographical sites).
- On Wednesday, October 28, 1999, James M. Hughes, M.D., Director, National Center for Infectious Diseases, provided a briefing to congressional staff to update them on the West Nile virus outbreak. The briefing was sponsored by Representatives Gary Ackerman, Joseph Crowley, Rosa DeLauro, and Senator Charles Schumer. Participants in the briefing included Dr. Alfonso Torres, Deputy Administrator, Veterinary Services, U.S. Department of Agriculture; and Dr. Robert McLean, Director, Biological Resources Division, U.S. Geological Survey, Department of the Interior. Interdepartmental collaborative activities in the investigation of this outbreak were highlighted by the participants.
- On November 8 and 9, the Division of Vector-Borne Infectious Diseases, NCID, CDC, will host a workshop with approximately 40 experts to discuss short- and long-term issues related to the prevention and control of this virus.
- The *Morbidity and Mortality Weekly Report* October 22 update is the most recent and may be accessed at: <http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4841a3.htm>
- Information on the outbreak is also available at:
<http://www.cdc.gov/od/oc/media/archives.htm>

* New counties in the listing are shown in bold.

Centers for Disease Control and Prevention
Summary of *Listeria monocytogenes* Cluster Linked to Hot Dog Isolate
October 28, 1999

The isolation of *Listeria monocytogenes* (*LM*) from an unopened package of hotdogs resulted in a recall on October 13, 1999, of Sabrett Skinless Beef Frankfurters with Establishment Number 8854 and sell-by-date of October 22 (corresponding to a production date of August 20, 1999). This product is distributed primarily in the New York Metropolitan area, but the product is also sold in other regions of the United States. On October 26, the company expanded the recall to include all 16-oz. and five-pound packages of Sabrett Skinless Beef Frankfurters and Western Beef Skinless Beef Frankfurters with establishment number 8854. Marathon Enterprises, the company producing the hot dogs, also supplies wholesale hot dogs to stadiums and street vendors; however, these hot dogs may originate from a plant with a different establishment number.

Clinical isolates from eight patients with *LM* infections have identical pulsed-field gel electrophoresis (PFGE) patterns to the *LM* isolate obtained from an unopened package of Sabrett brand Skinless Beef Frankfurters. At present, State health departments and CDC have identified, by PFGE, eight patients infected with this strain of *LM*: 3 from Minnesota, 3 from Wisconsin, 1 from Georgia, and 1 from Rhode Island. Two patients have died. Illness onset dates range from July 21 to October 8, 1999. Ribotyping has linked a ninth isolate obtained from a patient in Connecticut to the isolate obtained from the hot dogs. Officials from the above State health departments are interviewing patients using the FoodNet *Listeria* questionnaire. They are also asking patients about consumption of Sabrett or Western Beef brand hot dogs; travel to New York City; or eating hot dogs at stadiums, sporting events, or from street vendors.

At this stage in the investigation, **no epidemiologic link has been made** between patients infected with this strain of *LM* and consumption of Sabrett or Western Beef brand hot dogs.

CDC is working with FoodNet sites and State health departments to identify additional cases of *LM* infection, subtype *LM* isolates, and interview patients with *LM* since July 1, 1999.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Chief of Staff

Washington, D.C. 20201

F A C S I M I L E

DATE:

10/29/99

TO:

Kris Balderston Marge T
Devorah Adler

FAX#:

456-5557 456-2525
456-1907

FROM:

Liz Summy
Deputy Chief of Staff

Phone: 202/690-7431 Fax: 202/401-5783

COMMENTS:

West Nile - like Virus

4

Pages [including this cover]

WEST NILE VIRUS OUTBREAK

New York City, New York State, Connecticut, and New Jersey

Prepared by the Centers for Disease Control and Prevention (CDC)

October 28, 1999

- As of October 28, no additional human cases of West Nile infection have been confirmed. The number of cases remains at 59 with 7 deaths.
- West Nile virus has been identified in 160 birds collected in the Bronx, Brooklyn, Manhattan, Queens, and Staten Island in New York City; Nassau, Orange, Rockland, Saratoga, Suffolk, and Westchester counties in New York; Bergen, Burlington, Cumberland, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Union, and Warren counties in New Jersey; in Fairfield County in Connecticut, and in ***Baltimore** County in Maryland.
- Four new mosquito pools have been identified as positive (from Queens and Nassau County; no new geographical sites).
- On Wednesday, October 28, 1999, James M. Hughes, M.D., Director, National Center for Infectious Diseases, provided a briefing to congressional staff to update them on the West Nile virus outbreak. The briefing was sponsored by Representatives Gary Ackerman, Joseph Crowley, Rosa DeLauro, and Senator Charles Schumer. Participants in the briefing included Dr. Alfonso Torres, Deputy Administrator, Veterinary Services, U.S. Department of Agriculture; and Dr. Robert McLean, Director, Biological Resources Division, U.S. Geological Survey, Department of the Interior. Interdepartmental collaborative activities in the investigation of this outbreak were highlighted by the participants.
- On November 8 and 9, the Division of Vector-Borne Infectious Diseases, NCID, CDC, will host a workshop with approximately 40 experts to discuss short- and long-term issues related to the prevention and control of this virus.
- The *Morbidity and Mortality Weekly Report* October 22 update is the most recent and may be accessed at: <http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4841a3.htm>
- Information on the outbreak is also available at: <http://www.cdc.gov/od/oc/media/archives.htm>.

* New counties in the listing are shown in bold.

To: Elizabeth Summy@IOS.IO
From: "de Peyster, Frances L." <fld1@cdc.gov>
Cc: ISMTP@B11WDC-OV08B@Servers["Katz, Martha F." <mfk1@cdc.gov>],
ISMTP@B11WDC-OV08B@Servers["Hughes, James M. MD"
<jmh2@cdc.gov>], ISMTP@B11WDC-OV08B@Servers["Shriber, Donald E."
<dfs4@cdc.gov>], ISMTP@B11WDC-OV08B@Servers["de Peyster, Frances
L." <fld1@cdc.gov>], ISMTP@B11WDC-OV08B@Servers["Durham, Thena
M." <tmdl@cdc.gov>]
Bcc:
Subject: Yesterday's West Nile Hill Briefing went well!
Attachment: Headers.822
Date: 10/28/99 10:37 AM

Hi Liz - Per your request to give you a brief report -

The briefing went very well. No Members, no press, and about 25 staff attended, including 3 from Sen. Schumer's office. Representatives from USDA and the U.S. Geological Survey of the Dept. of Interior attended and commented during the Q's & A's in helpful ways that demonstrated the coordination among the federal agencies working on this issue. EPA did not send anyone, although they had been invited.

Dr. Hughes did a great job of discussing the West Nile outbreak/investigation in the context of CDC's emerging infectious diseases activities, and also described key factors in our ability to detect and respond to unusual events - whether they be from a naturally occurring new infectious agent or from an intentional bioterrorist event. His update on the case count included the 3 new cases Donald discussed with you before the briefing. There was no unusual reaction to that news by the staff, and Dr. Hughes indicated that case numbers may likely increase further as we complete our investigation.

The only somewhat critical question came from Sen. Schumer's staff who asked about the lack of responsiveness to the veterinarian at the Bronx zoo. Dr. Hughes acknowledged that we did not appreciate as soon as we might have the connection between the dead birds and human illness and that it is absolutely critical to strengthen the interreaction between veterinarians and medical/public health personnel. He gave several examples of how we are already doing that and noted that various experts from these fields would be attending the November meeting in Ft. Collins to help advise on next steps.

Rep. Ackerman's staff inquired about the status of the serosurvey and Dr. Hughes indicated testing is underway but results are not expected for a while. Finally, Rep. Towns' staffer expressed concern that her office had been hearing from environmental groups about the use of certain pesticides, but indicated that her boss appreciated the value of spraying to control the spread of the outbreak. Other questions allowed Dr. Hughes to address the importance strengthening public health infrastructure at all levels of government and enhancing surveillance globally as well as domestically.

At the end of the briefing, Sen. Schumer's staffers said there was no need

for Dr. Hughes to meet with them separately as he'd planned to do!

If you have any questions, please call Donald or me.

Francie de Peyster

CDC/Washington

phone: 202-690-8598

fax: 202-690-7519

> <http://www.cdc.gov/od/wash/>

> <http://www.cdc.gov>

>

ERIC 62878 - West Nile

TALKING POINTS

This is an ongoing outbreak investigation and state, local, and federal health officials are systematically collecting the information needed to answer the tough questions: **What organism is causing this outbreak of encephalitis? How is it transmitted? How can we stop the spread of this illness?** Along the way, any seasoned scientific investigator expects curious twists and turns that may lead us to dead ends or answer the tough questions.

On **August 23rd** an alert physician in NYC contact NCY Health Department about two cases on encephalitis. On Sept. 3, CDC reported that serum samples were positive for SLE and on Sept. 3 spraying began. **Just 11 days** after the primary physician alerted the NY health department, CDC had **answered the important questions**: the organism was a virus that is carried by mosquitoes and mosquito control would stop the spread of illness.

Examples of timelines from other outbreaks:

- The first reported case of avian influenza Type A(H5N1) in a human occurred in May 1997 in Hong Kong, and was laboratory confirmed in August. No additional cases were reported until November 1997.
- The first AIDS cases were reported in June 1981; the first report of a retrovirus etiology was in September 1983.
- First cases Legionnaires' disease in July-Aug 1976 and the cause was reported in MMWR in January, 1977.

The bird issue came up after the control measures to stop the spread were instituted. During Sept. 7-9, the Bronx Zoo observed an increase of birds dying. Samples from the birds were first sent to the USDA National Veterinary Services Laboratories on Sept. 10 to be tested and were negative for common avian pathogens. The specimens were forwarded to CDC on Sept. 20 for identification and characterization. On Sept. 23, PCR and DNA sequencing of this isolates indicated they were closely related to WNV. Without the isolates from the dead birds, CDC could not determine the organism was WNLV. Blood samples detect antibody and are cross reactive for WNV and SLE. This information was shared with NYC. This information did not change the ongoing control measures and treatments.

TO: Kris Balderston/Irma Martinez (456-2525)
Chris Jennings/Devorah Adler (456-5557)
Maria Echaveste/Marge Tarmey (456-1907)

FROM: Liz Summy
Deputy Chief of Staff, HHS
690-7431

RE: Daily Update

PAGES: 2 (including Cover)

WEST NILE-LIKE VIRUS OUTBREAK
New York City, New York State, Connecticut, and New Jersey
Prepared by the Centers for Disease Control and Prevention (CDC)
October 12, 1999

- As of October 12, one additional human case of West Nile-like infection from Queens, New York City has been confirmed. The number of cases is now 55 with 6 deaths.
- West Nile-like virus has been identified in 97 birds collected in Manhattan, the Bronx, Brooklyn, Staten Island and Queens in New York City; Nassau, Rockland, Suffolk, and Westchester counties in New York; Bergen, Essex, Hudson, Middlesex, Monmouth, Union, Hunterdon and Morris counties in New Jersey; and in Fairfield County in Connecticut (cities of Westport and Bridgeport). The latest date of collection is October 5. Officials from the Connecticut Department of Health have announced positive birds collected from the cities of Fairfield, Greenwich and Stamford in Fairfield County, but CDC has not received samples to confirm those results.
- One new mosquito pool has tested positive from Hudson County (Secaucus), New Jersey with a collection date of September 28, 1999. To date, positive mosquito pools have been collected from the Bronx, Queens, Brooklyn, and Nassau County in New York and from Greenwich, Connecticut.
- On Tuesday morning, October 12, Roger S. Nasci, Ph.D., Research Entomologist in CDC's National Center for Infectious Diseases, Division of Vector-Borne Infectious Diseases, presented testimony at an oversight hearing before the Committee on Health, Council of the City of New York. The hearing addressed, "The Encephalitis Outbreak: A Look at New York City's Emergency Response and Evaluating Future Preventive Measures." Dr. Nasci testified on CDC's response to the outbreak in the New York City area.
- *Morbidity and Mortality Weekly Report (MMWR)* updates will be prepared as substantive information becomes available (tentatively, an update will be prepared for Friday, October 15). The latest *MMWR* dated October 8, 1999 can be viewed at:
<http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4839a5.htm>
- Information on the outbreak is also available at:
<http://www.cdc.gov/od/oc/media/archives.htm>



FACSIMILE

DATE: _____

TO: Deborah

FAX#: 6-5557

cc: Balderston 6704
Marge 1907

FROM: Mary Beth Donahue
Chief of Staff

Phone: 202/690-7431 Fax: 202/401-5783

COMMENTS:

per your request

3 Pages [including this cover]

Q. I heard that CDC gave West Nile virus to Iraq. Is this the same virus. Could Hussein have used this strain to create a bio-terrorist weapon that it unleashed on New York City?

CDC's laboratories serve as an international reference center for the diagnosis of infections due to mosquito-borne viruses, such as West Nile fever virus. As part of its activities, CDC trains scientists in foreign countries to perform diagnostic laboratory testing in support of local disease surveillance programs. West Nile virus occurs naturally in Iraq. However, an Iraqi scientist, training at CDC, was allowed to take a strain of West Nile virus for work in his laboratory when he returned home in 1985. West Nile virus is indigenous to the Middle East and these virus samples were of no strategic value. The West Nile virus strain isolated in NY is more closely related to other strains of West Nile virus than it is to the strain provided the Iraqi scientist. This is an ongoing investigation; however, to date, there is no evidence that this anything but a naturally occurring event.

With worldwide trained scientists, diseases are more readily identified and interventions, such as mosquito control or vaccination programs, can be implemented. Typically, a scientist spends several weeks to several months at CDC, and when they leave, they sometimes are given a small supply of reagents, a starter diagnostic kit, to begin surveillance efforts locally. Sometimes are also given a seed vial of a standard virus strains to enable them to produce diagnostic reagents locally. In 1985, at a time when the U.S and Iraq maintained friendly relations, an Iraqi scientist visited CDC labs to undergo such training and he took a seed vial of West Nile fever virus with him upon his return. However, there is no reason to think that the current outbreak in NY was caused by this strain of virus. Once CDC completes the genetic characterization of the virus isolated in NY and compares it with other strains of West Nile fever virus, it will be possible to identify related viruses. However, identifying the strain of virus will not in itself determine the source of the outbreak in New York.

Q. How could CDC have made such a huge mistake by telling patients they had SLE when they didn't?

Learning that West Nile-like virus rather than SLE caused the outbreak is an important development for people who study viruses. The normal test panel of viruses against which serum and tissue samples from suspected encephalitis cases in the United States are routinely tested for the viruses that are indigenous to the United States. Scientists now know to include this virus when performing diagnostic tests of persons with encephalitis so they can identify the exact cause. From a public health and individual's perspective, the difference in diagnosis changes nothing. The diagnosis of West Nile does not change the treatment or control measures recommended by CDC.

Background:

This is an ongoing disease outbreak investigation. In the early stages of any investigation, there are more questions than answers. CDC is sharing preliminary information and theories with involved health departments as quickly as it becomes available. CDC is continuing to investigate

this outbreak and will continue to share information and theories as quickly as possible with involved area.

Q. Why did CDC first say the cases were SLE?

The normal test panel of viruses against which serum and tissue samples from suspected encephalitis cases the United States are routinely tested for the viruses that are indigenous to the U.S., i.e., St. Louis, Eastern Equine, Western Equine, LaCrosse, and Powassan viruses. The serology on samples from initial human cases in this outbreak were reported as consistent with St. Louis encephalitis virus infection. Because the clinical and epidemiological aspects of these cases were also compatible with SLE virus infection, the diagnosis of SLE was naturally made.

Q. Did CDC make a lab mistake?

Not at all. The usual procedure in an investigation of this type is to test for the most likely cause of disease. More specific follow-up tests then can be performed to confirm the diagnosis. In this instance follow up testing identified the West Nile virus, new to the Western Hemisphere. The serology on samples from initial human cases in this outbreak were consistent with St. Louis encephalitis virus infection. Because the clinical and epidemiological aspects of these cases were also compatible with SLE virus infection, the initial diagnosis of SLE was naturally made.

TO: Kris Balderston/Irma Martinez (456-2525)
Chris Jennings/Devorah Adler (456-5557)
Maria Echaveste/Marge Tarmey (456-1907)

FROM: Liz Summy
Deputy Chief of Staff, HHS
690-7431

RE: West Nile-vike Virus *Outbreak Update*

PAGES: 2 (Including Cover)

WEST NILE-LIKE VIRUS OUTBREAK
New York City, New York State, Connecticut, and New Jersey
Prepared by the Centers for Disease Control and Prevention (CDC)
October 14, 1999

- As of October 14, one additional human fatal case of West Nile-like infection has been confirmed in a 75 year old male who was a resident of Toronto, Canada, but had traveled to Queens, New York during the outbreak. The onset of his illness was September 5, 1999. The number of cases is now 56 with 7 deaths.
- No additional birds have been identified as having West Nile-like virus. To date 97 birds have been collected and identified with West Nile-like virus.
- One new mosquito pool has tested positive from Suffolk County, New York, with a collection date of October 4, 1999. To date, positive mosquito pools have been collected from the Bronx, Queens, Brooklyn, Nassau, and Suffolk Counties in New York and from Greenwich, Connecticut.
- *Morbidity and Mortality Weekly Report (MMWR)* updates will be prepared as substantive information becomes available (an update will be prepared for Friday, October 22). The latest *MMWR* dated 10/8/99 can be viewed at:
<http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4839a5.htm>
- Information on the outbreak is also available at:
<http://www.cdc.gov/od/oc/media/archives.htm>.

TO: Kris Balderston/Irma Martinez (456-2525)
Chris Jennings/Devorah Adler (456-5557)
Maria Echaveste/Marge Tarmey (456-1907)

FROM: Liz Summy
Deputy Chief of Staff, HHS
690-7431

RE: West Nile-vike Virus Outbreak Update

Pages: 2 (Including Cover)

WEST NILE-LIKE VIRUS OUTBREAK
New York City, New York State, Connecticut, and New Jersey
Prepared by the Centers for Disease Control and Prevention (CDC)
October 14, 1999

- As of October 14, one additional human fatal case of West Nile-like infection has been confirmed in a 75 year old male who was a resident of Toronto, Canada, but had traveled to Queens, New York during the outbreak. The onset of his illness was September 5, 1999. The number of cases is now 56 with 7 deaths.
- No additional birds have been identified as having West Nile-like virus. To date 97 birds have been collected and identified with West Nile-like virus.
- One new mosquito pool has tested positive from Suffolk County, New York, with a collection date of October 4, 1999. To date, positive mosquito pools have been collected from the Bronx, Queens, Brooklyn, Nassau, and Suffolk Counties in New York and from Greenwich, Connecticut.
- *Morbidity and Mortality Weekly Report (MMWR)* updates will be prepared as substantive information becomes available (an update will be prepared for Friday, October 22). The latest *MMWR* dated 10/8/99 can be viewed at:
<http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4839a5.htm>
- Information on the outbreak is also available at:
<http://www.cdc.gov/od/oc/media/archives.htm>.