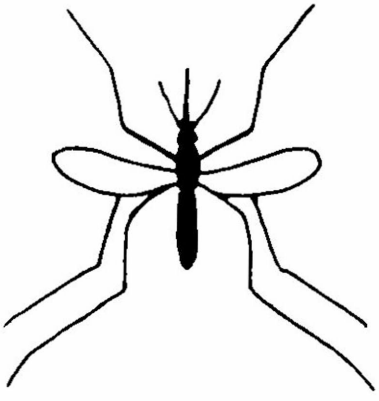
VEE SUMMARY
January-June 1973
Issued June 1973

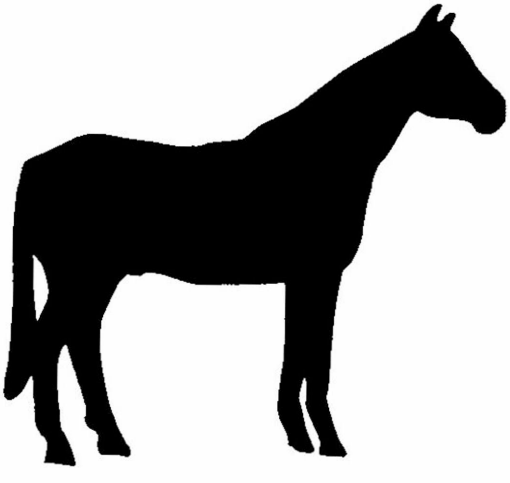
CENTER FOR DISEASE CONTROL

VENEZUELAN EQUINE ENCEPHALITIS

SURVEILLANCE



ZOONOSIS



U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION

PREFACE

Summarized in this report is information received from State Health Departments, university investigators, virology laboratories and other pertinent sources, domestic and foreign. Much of the information is preliminary. It is intended primarily for the use of those with responsibility for disease control activities. Anyone desiring to quote this report should contact the original investigator for confirmation and interpretation.

Contributions to the surveillance report are most welcome. Please address to

Center for Disease Control
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SUGGESTED CITATION

Center for Disease Control: Venezuelan Equine Encephalitis Surveillance
January-June 1973, Issued June 1973

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Because of the need to provide information as soon as possible on VEE activity, these surveillance reports will be issued at various intervals--daily, weekly, bi-weekly or monthly--as the urgency of the information demands.

We invite your inquiries or information on VEE and related activities: Center for Disease Control, Office of Veterinary Public Health Services (404) 633-3311, Ext. 3691. Evening or weekend phone numbers:

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I. SUMMARY

In 1972, Venezuelan equine encephalitis (VEE) activity resulted in 4,789 equine reported deaths in Mexico. Current activities in Mexico are centered around extensive VEE equine vaccinations. No equine or human cases of VEE have been reported in the United States to date in 1973. Extensive and prolonged precipitation in many areas of the United States in early 1973 form an ecologic pattern for early and heavy vector populations. Surveillance activities by a number of cooperating federal, state, and local agencies to monitor possible VEE activity in mosquitoes and equines in the United States are commencing for the coming mosquito season.

II. INTERNATIONAL NOTES

In 1972, there were 4,789 equine deaths from VEE reported by Mexican sources from 13 states throughout the country. Over 1½ million equines were vaccinated with modified live virus VEE vaccine produced by Mexican laboratories. Vaccination campaigns were conducted in all areas of the country, except the State of Baja California, and 2 territories, Baja California and Quintana Roo.

By mid-April 1973, over 1 3/4 million equines in areas considered at high risk had been vaccinated by government groups.

Blood samples on 332 equines were submitted to CDC from several Mexican states in early 1973. An average of 62% carried antibodies against VEE, with a range of 25% in the State of Nayarit to 95% in the State of Vera Cruz, Mexico. Of the specimens tested, 31.6% of the equines had no VEE, EEE, or WEE antibodies, 45.2% had EEE antibodies, and 37.3% had WEE antibodies (Table 1). All tests were conducted using the HI test system.

In addition to the equine vaccination campaign, the Mexican program plans to follow up epidemiologic surveillance of human cases to determine if any neurologic sequelae occurred and to collaborate with other countries in need of attenuated live virus VEE vaccine.

The Secretary of Agriculture and Livestock, Secretary of National Defense, and Secretary of Health and Welfare will coordinate an investigation project, as recommended by the Technical Council for the campaign against VEE. Investigations to be carried out will seek to determine the prevalence of VEE virus during the winter months in horses, mosquitoes, mammals, and wild animals. There are 3 possible areas for conducting this study: the northern part of Sonora, State of Chihuahua, or State of Oaxaca. (Sources: Dr. Luis Fernandez Z., Animal Health Ministry of Agriculture and Livestock, Mexico, D.F.; Border Epidemiology Bulletin, Special Report, Venezuelan Equine Encephalitis, Field Office/U.S.-Mexico Border--Pan American Health Organization, May 1973; and Dr. Roberto Sanz Bienzobas, Direccion General de Sanidad Animal, Depto. de Sanidad Equina, Mexico, D.F.)

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Table 1

HI TEST RESULTS OF VEE, EEE, AND WEE
SEROLOGIC SAMPLES, JANUARY 1973

STATE	ANTIBODY							
	VEE		EEE		WEE		BOTH	
	Ratio Pos.	%	Ratio Pos.	%	Ratio Pos.	%	Ratio Pos.	%
Durango	14/19	73.5	6/19	31.6	9/19	36.8	4/19	21.0
Vera Cruz	19/21	95.0	13/20	65.0	8/20	40.0	1/20	5.0
Oaxaca	15/20	75.0	13/20	65.0	11/20	55.0	3/20	15.0
San Luis Potosi	17/19	89.4	8/19	42.1	6/19	31.6	1/19	5.3
Yucatan	11/20	55.0	8/20	40.0	7/20	35.0	7/20	35.0
Nayarit	5/20	25.0	3/20	15.0	3/20	15.0	14/20	70.0
Sonora	6/20	30.0	7/20	35.0	12/20	60.0	7/20	35.0
Edo Mex.	8/20	40.0	10/20	50.0	6/20	30.0	10/20	50.0
Distrito Fed.	111/174	63.6	82/174	47.1	64/174	36.8	58/174	33.3
Total	206/332	62.0	150/332	45.2	126/332	37.3	105/332	31.6

III. STATE ACTIVITIES, 1973

A. California

No human or equine cases of arbovirus encephalitis have been detected in California this year. As of April 30, there has been one isolate of St. Louis encephalitis virus from a pool of Culex tarsalis mosquitoes collected April 4 in Imperial County, California. This isolate was the only one from 519 mosquito pools tested thus far this year. There have been 14 clinical suspect cases of encephalitis in horses thus far this year, none of which were laboratory confirmed as being caused by arboviruses.

Cooperative State-Federal plans in California are to collect mosquitoes for virus isolations and to investigate all suspect equine encephalitis cases in the coming year. (Reported by: Dr. Richard W. Emmons, Public Health Physician, and Dr. George L. Humphrey, Chief, Veterinary Section, California State Department of Public Health, Berkeley, California.)

B. Arizona

An arbovirus surveillance workshop for Arizona was conducted May 1 and 2, 1973, to familiarize field workers with specimen collection and handling. Other subjects emphasized were small animal and mosquito trapping and the use of pertinent field surveillance tools. Participants were from international agencies, federal, state, and local agricultural and public health groups. (Reported by: Dr. Philip M. Hotchkiss, State Public Health Veterinarian, Arizona Department of Health, Phoenix, Arizona.)

C. New Mexico and Texas

No VEE cases in equines or man have been reported in New Mexico or Texas. Continued equine surveillance and VEE vaccination will be carried out in the coming vector season.

Texas will continue wildlife surveillance and mosquito trapping along the Texas-Mexico border. Cooperating groups include Texas State Department of Health, Texas Animal Health Commission, Texas A & M University, USDA, CDC, and various other state and local agencies. (Reported by: Dr. A. B. Rich, State Public Health Veterinarian, Texas State Department of Health, Austin, Texas; Dr. Jack Pitcher, Assistant Veterinarian in Charge, USDA, Austin, Texas; and Dr. D. A. Price, Veterinarian in Charge, USDA, Albuquerque, New Mexico).

FEDERAL ACTIVITIES

In 1973, USDA proposes to continue cooperation with Mexican authorities for VEE veillance. Present plans within the United States include continued investigation all suspect equine encephalitis cases, with appropriate laboratory support, and ter collections along the entire United States-Mexican border.

Through April 30, 1973, USDA reported a total of 6,768 equine VEE vaccinations in United States. There have been 55 clinical suspect equine cases of encephalitis vestigated by cooperating state-federal agencies thus far this year. (Reported by: Bob Mathis, Animal and Plant Inspection Service, USDA, Hyattsville, Maryland, Foreign Animal Diseases Report, May 1973, USDA, APHIS, U.S. Federal Center ilding, Hyattsville, Maryland).

ADDENDUM

The editors of the VEE Surveillance Report apologize to Dr. Telford Work for our lure to properly credit him for having made a non-epidemic virus isolation of VEE m a Psorophora confinnis mosquito pool in Mexico in 1972, as reported in Center Disease Control: Venezuelan Equine Encephalitis Surveillance, Annual Summary 1972, ued March 1973.

STATE EPIDEMIOLOGISTS AND STATE PUBLIC HEALTH VETERINARIANS

Key to all disease surveillance activities are the State Epidemiologists, who are responsible for collecting, interpreting, and transmitting data and epidemiologic information from their individual States. Their contributions to this report are gratefully acknowledged. In addition, valuable contributions to zoonoses surveillance reports are made by State Public Health Veterinarians.

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