



Reported Morbidity
February, 1980

MONTHLY MORBIDITY REPORT

Provisional Statistics

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OFFICE OF HEALTH SERVICES AND ENVIRONMENTAL QUALITY
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from

EPIDEMIOLOGY UNIT AND PUBLIC HEALTH STATISTICS

DENGUE THREAT

Dengue, or breakbone fever, may be headed for Louisiana following many years of absence. Recognizing a combination of conditions conducive to such return, the Center for Disease Control recently issued a position paper documenting the dengue threat, and convened a meeting of epidemiological and vector control personnel from the dengue receptive area of the United States (southern states) to plan strategy to meet this threat. Louisiana may be one of the most vulnerable states.

During recent years there has occurred a resurgence of dengue in the Western Hemisphere. Large epidemics in the Caribbean Islands have taken place with regularity during the last decade and very recently the disease has been reported from Central America and Mexico. Mexican health authorities have reported that dengue activity had extended as far northward as Tampico by October 1979. Consequently, it is possible that dengue activity will

extend north to the United States Border during the 1980 spring/summer season. Conditions for dengue transmission would require a susceptible human population, ample populations of the vector mosquito, and the virus.

Susceptible human populations and the vector are already present in the southern United States. Although serologically confirmed cases (151) imported from the Caribbean area have been reported in the southern states from 1977 to present, there are no reports of secondary (local) transmission. The recent presence of the virus in Central America and Mexico, especially northern Mexico, presents an increased risk because of the proximity and the large number of travelers entering the United States from those areas. The risk of introduction with secondary transmission is low during the present winter months because of normal seasonal reductions in vector populations in the receptive areas of the United

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BULLETIN

CHOLERA VACCINATION

Why do so many companies require their personnel who are being sent abroad to have cholera vaccinations? Only three countries in the world (Maldives, Mozambique and Niger) require travelers arriving from all countries including the United States to have documentation of cholera vaccination.

The risk of cholera to United States travelers is so low that it is questionable whether vaccination is of benefit even to those traveling to infected areas, especially those who follow the usual tourists itineraries and use standard accommodations. Also, current available cholera vaccines are of limited usefulness, being only about 50% effective in reducing clinical illness for 3-6 months. Vaccination does not prevent transmission of infection.

The United States Public Health Service recommends only a single dose of vaccine for travellers to satisfy International Health Regulations. The two dose series is suggested only for special high-risk groups working or living in highly endemic areas with inadequate sanitary conditions and persons with compromised gastric defense mechanisms traveling to infected areas.

Currently, according to WHO, as of February 22, 1980, the following countries were reporting cholera infected areas:

Bangladesh, Burma, Burundi, Congo, Ghana, India, Indonesia, Liberia, Malawi, Malaysia, Mozambique, Nepal, Nigeria, Philippines, Sudan, Tanzania, Thailand, Uganda, Viet Nam, Democratic Yemen, Zambia, and Zaire. Of these, only Mozambique requires cholera vaccinations of all arriving travelers.

If a traveler, however, visits an infected area of one of the above countries, he may be required to have a cholera vaccination if he then travels to Albania, Angola, Brunei, Cape Verde, Republic of China (Taiwan), Cook Island, Egypt, Gambia, Iran, Laos, Libyan Arab Jamahiriya, Malawi, Mali, Malta, Niger, Niue, Pakistan, Panama, Papua New Guinea, Ryukyu Islands, Seychelles, Somalia, Sudan, Swaziland, Tuvalu, United Arab Emirates, Viet Nam, or Zambia.

Physicians, especially those providing services to petroleum related companies and steamship agents are urged to recommend immunizations for personnel traveling abroad and seamen only where medically indicated or required according to the itinerary of the individual. For current information on the requirements or the disease status of individual countries contact your parish health unit or the State Epidemiology Unit in New Orleans (504) 568-5005.

States. However, the level of risk is expected to rise as the distribution and size of the vector populations increase during the forthcoming spring and summer.

Dengue, commonly known as breakbone fever, is a viral disease transmitted by the yellow fever mosquito, *Aedes aegypti*. Although the fatality rate is low, dengue is a debilitating disease frequently resulting in prolonged fatigue and depression. Epidemics are explosive. Dengue has not occurred in Louisiana in epidemic proportions since 1945; however, developments in Central America and Mexico may presage the return of local transmission of the disease.

The disease in its benign form presents with fever, headache, muscle pain and, often, a rubelliform rash (occasionally, petechial). In its malignant (hemorrhagic) form it is a severe, sometimes fatal disease, characterized by hemorrhagic rash, bleeding into internal organs and shock. Severity varies from one epidemic to another but the benign form of disease has predominated in the Western Hemisphere. The period of acute illness is usually 5-7 days but convalescence can last several times longer. There is no vaccine and treatment is symptomatic and supportive.

Active surveillance and prompt reporting of suspect cases can be of significant advantage in directing control efforts. However, dengue is not readily categorized from clinical signs and symptoms alone. A working definition of dengue is:

Fever — 101° oral with severe headache or retro-orbital pain, and one or more of the following:

- (1) myalgia or arthralgia;
- (2) macular or maculopapular rash; or
- (3) petechiae

Patients who fit this definition should be questioned about exposure in known dengue areas during the maximum incubation period (15 days). If there has been such exposure, mosquito barrier measures should be employed during the febrile period.

The differential diagnosis in the usual cases is between this and influenza, measles-rubella, adenovirus and other viral syndromes. The readily available

laboratory studies show a leukopenia (6000 or less) thrombocytopenia (100,000 or less) and hemocentration (20% or more).

Laboratory diagnosis requires acute and convalescent bloods taken at least 3 weeks apart. Virus is readily recovered from the acute specimen. Physicians are encouraged to report suspect cases and to forward appropriate specimens to the Division of Laboratories.

The prevention of dengue transmission or abatement of epidemics depend upon control of the vector mosquito along with protective measures individuals can take against mosquito bites. Such measures include remaining indoors whenever practicable, ensuring that screens at windows and doors are tight-fitting, and using mosquito repellent and protective clothing when exposed to mosquitos. Vector mosquito control entails both "good news" and "bad news". The "good news" is that the yellow fever mosquito is our most domestic species and its breeding places are highly restricted and easily found. *Aedes aegypti* breeds in man-made containers and rot holes in trees near human habitations. Favored breeding sites are discarded automobile tires, tubs, buckets, cans, boats, bird baths, and roof gutters which contain water. The species does not breed in ditches, ponds, lakes, swamps, or other situations in contact with the ground. The "bad news" is that the numerous, frequently obscure breeding sites, are difficult to locate and are often on private premises where cooperation by individuals is frequently more important than organized mosquito control efforts (which are usually directed against large breeding areas characteristic of other species). Public cooperation is essential toward controlling the vector through source reduction (elimination of water-holding containers). To this end, public information is essential.

In the days ahead, considerably more information will probably be forthcoming from this office regarding this situation. Also, representatives of the Vector Control Program will visit numerous areas of the State to update our knowledge on the distribution and density of *Aedes aegypti* and otherwise implement a preparedness program.

MALARIA OUTBREAK AMONG NEWLY ARRIVING VIETNAMESE REFUGEES NEW ORLEANS, LOUISIANA

From 1 November 1979 until 29 February 1980 the New Orleans metropolitan area has received approximately 427 Vietnamese "boat people" refugees.

During this same time period there have been 17 refugees admitted to Charity Hospital at New Orleans because of fever, chills, and malaise for which a diagnosis of *Plasmodium vivax* malaria has been confirmed.

The group includes 10 male and 7 female patients ranging in age from 4 - 35 years with a mean of 20.3 years. A range of 5 - 56 days occurred between arrival into the USA and presentation at the hospital.

Detailed histories reveal that many of the patients are related to each other or that they were on the same boats leaving Viet Nam. All were encamped at various refugee camps in Indonesia; however, all spent some time at the same camp, Sulgai Walang on Bintan Island. None was encamped nor originated

from other Southeast Asian countries. The patients were diagnosed by Vietnamese physicians on the island as having malaria, and the patients were aware that fever was very common among people housed there. While some refugees were given small amounts of quinine with aspirin in Indonesia, none was given primaquine to insure a radical cure.

No cases of falciparum malaria have been found. State and parish health authorities are coordinating mosquito surveillance procedures in the areas housing these refugees with appropriate agencies.

No endogenous malaria cases have been reported among the thousands of other Vietnamese refugees who immigrated to this area in 1975-76. Other family members of malaria index cases arriving from the same Indonesian camp are being called into special outpatient clinics for screening and/or chloroquine-primaquine treatment.

SELECTED REPORTABLE DISEASES (By Place of Residence)

STATE AND PARISH TOTALS	VACCINE PREVENTABLE DISEASES					ASEPTIC MENINGITIS	HEPATITIS A AND UNSPECIFIED	HEPATITIS B	LEGIONNAIRES DISEASE	MALARIA**	MENINGOCOCCAL INFECTIONS	SHIGELLOSIS	TUBERCULOSIS, PULMONARY	TYPHOID FEVER	OTHER SALMONELLOSIS	UNDERNUTRITION SEVERE	GONORRHEA	SYPHILIS, PRIMARY AND SECONDARY	RABIES IN ANIMALS (PARISH TOTALS CUMULATIVE, 1980)
	MEASLES	RUBELLA*	MUMPS	PERTUSSIS	TETANUS														
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TOTAL TO DATE 1979	56	5	10	4	0	10	103	36	0	0	52	8	103	0	19	0	3571	116	1
TOTAL TO DATE 1980	5	2	9	1	0	11	136	30	0	14	18	40	66	0	14	1	3333	199	3
TOTAL THIS MONTH	5	2	8	1	0	10	82	19	0	14	14	35	34	0	9	1	1790	99	2
ACADIA							1	1			1						9		
ALLEN																	6	1	
ASCENSION																	6		
ASSUMPTION																			
AVOUELLES																	5		
BEAUREGARD																	4	1	
BIENVILLE																	1		
BOSSIER																	25		
CADDO			7									2	5		2		142	2	2
CALCASIEU							1						2				66	1	
CALDWELL							1										3		
CAMERON													1				2		
CATAHOULA																	1		
CLAIBORNE																			
CONCORDIA																	3		
DESOTO																			
EAST BATON ROUGE		1					4						1			1	148	11	
EAST CARROLL							4										26	2	
EAST FELICIANA							1										1		
EVANGELINE							1										4		
FRANKLIN							1										10		
GRANT							1						3				1		
IBERIA	2								1				1				6	1	
IBERVILLE																	6	2	
JACKSON																	1		
JEFFERSON	1					5	26	6		2		2	1		4		105	3	
JEFFERSON DAVIS																	6	2	
LAFAYETTE																	30	2	
LAFOURCHE																	5		
LASALLE																	1		
LINCOLN							1										25	2	
LIVINGSTON							1						1				3		
MADISON						1											11		
MOREHOUSE											1						11		
NATCHITOCHE						1													
ORLEANS	2					3	10	4		12	5		8		2		688	38	
OUACHITA							11						3				93	1	
PLAQUEMINES																	2		
POINTE COUPEE																		1	
RAPIDES								1					1				74	9	
RED RIVER																			
RICHLAND																	8		
SABINE																			2
ST. BERNARD							6	1									2		
ST. CHARLES												1					2		
ST. HELENA																	2	1	
ST. JAMES											1	1					11		
ST. JOHN							1										3	1	
ST. LANDRY																	9	2	
ST. MARTIN								1							1		3	1	
ST. MARY													1						
ST. TAMMANY							1				2						51		
TANGIPAOHA							3				2		1				19	1	
TENSAS																			
TERREBONNE				1				1			1						10		
UNION																	27		
VERMILION							1	1			1		1				5		
VERNON			1				2	1				29	1				58	1	
WASHINGTON		1					1	1									15	1	
WEBSTER													2				11		1
WEST BATON ROUGE													1				3		
WEST CARROLL							3										6		
WEST FELICIANA																		10	
WINN																	4		
OUT OF STATE																	11		

* Includes Rubella, Congenital Syndrome.

** Acquired outside United States unless otherwise stated.

From January 1, 1980, through February 29, 1980, the following cases were also reported:

1 - Leptospirosis; 1 - Brucellosis; 1 - Blastomycosis.