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For Week Ending September 29, 1973

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

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EPIDEMIOLOGIC NOTES AND REPORTS

HUMAN RABIES – Kentucky

On September 7, 1973, a 26-year-old man in Kentucky developed bilateral paresthesia and pain in his ears, headache, sore throat, and anorexia. These symptoms persisted and later were accompanied by fever, difficulty swallowing, confusion, and tremor. On September 10, he was admitted to the Clark County Hospital in Winchester, Kentucky, with a temperature of 105°F., nuchal rigidity, confusion, agitation, and spasmodic tremors.

Because of continuing deterioration in his condition, the patient was transferred to St. Joseph's Hospital in Lexington. Physical examination on admission revealed a temperature of 105°F., dysarthria, dysphagia, pharyngeal paralysis, and drooling. Stimulation of the patient precipitated spasms with spontaneous flexion of all extremities. A lumbar puncture revealed no marked abnormalities.

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On September 14, the patient had pharyngeal and laryngeal spasms, subsequent cyanosis, and suffered a respiratory arrest; he was resuscitated immediately.

The next day the patient's family offered the additional history that he had been bitten on the right ear by a bat in mid-August. The bat had escaped, and the patient had not sought medical care. On the basis of the epidemiologic and clinical data, the diagnosis of rabies was entertained.

TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	39th WEEK ENDING		MEDIAN 1968-1972	CUMULATIVE, FIRST 39 WEEKS		
	September 29, 1973	September 30, 1972		1973	1972	MEDIAN 1968-1972
Aseptic meningitis	202	160	194	3,409	2,809	3,107
Brucellosis	4	4	4	142	148	156
Chickenpox	272	348	– – –	145,749	114,976	– – –
Diphtheria	16	1	1	142	76	76
Encephalitis, primary:						
Arthropod-borne and unspecified	36	31	57	1,101	774	987
Encephalitis, post-infectious	6	3	3	228	224	284
Hepatitis, serum (Hepatitis B)	168	199	149	5,986	6,851	5,360
Hepatitis, infectious (Hepatitis A)	1,182	1,120	1,120	38,180	41,092	41,093
Malaria	5	11	44	186	715	2,184
Measles (rubeola)	76	131	153	24,397	27,210	27,210
Meningococcal infections, total	11	9	21	1,086	1,048	1,942
Civilian	11	8	21	1,062	1,005	1,749
Military	–	1	1	24	43	193
Mumps	428	340	631	56,258	57,663	77,510
Rubella (German measles)	84	404	243	26,205	21,423	44,362
Tetanus	3	2	4	68	92	92
Tuberculosis, new active	745	618	– – –	23,717	25,117	– – –
Tularemia	3	4	3	131	107	105
Typhoid fever	16	14	12	524	267	267
Typhus, tick-borne (Rky. Mt. spotted fever)	15	8	8	577	461	358
Venereal Diseases:						
Gonorrhea	18,118	19,417	– – –	614,100	558,205	– – –
Syphilis, primary and secondary	504	607	– – –	19,364	18,562	– – –
Rabies in animals	45	68	63	2,688	3,230	2,677

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	1	Poliomyelitis, total: Ind.-1	6
Botulism:	14	Paralytic:	4
Congenital rubella syndrome:	21	Psittacosis: *	19
Leprosy: Miss.-1, Tex.-1	93	Rabies in man:	–
Leptospirosis:	27	Trichinosis:	71
Plague:	2	Typhus, murine:	28

* Delayed reports: Psittacosis: Iowa-1

RABIES – Continued

Over the next few days, the patient lapsed into a coma. Neurologic examination revealed intermittent right lower motor neuron facial paralysis, generalized hyporeflexia, and response to only deep pain. No other focal abnormalities were present. Initially the patient was treated with diphenylhydantoin, diazepam, and chlorpromazine. Once the coma ensued, the sedatives were discontinued.

Proteinuria, hypothermia, and hypoxia subsequently developed. Despite intensive respiratory care which included ventilatory support by a volume-cycled respirator, antibiotics, postural drainage, use of bronchodilators, and vigorous suctioning, hypoxemia persisted. Serial chest X-rays revealed a progressive diffuse interstitial pattern. In spite of the use of continuous positive pressure breathing, pulmonary compliance and oxygenation deteriorated. On September 22, pneumothorax developed, and the patient had a repeat cardiorespiratory arrest and died.

The diagnosis of rabies was confirmed antemortem from corneal smears that were positive by the direct fluorescent antibody technique. Rabies virus was subsequently isolated from a sputum specimen obtained on September 20 and from brain tissue obtained postmortem.

Two bats captured near the patient's home and tested for rabies were negative. However, wildlife rabies, including bat rabies, is known to be endemic in this area of Kentucky. The last human rabies case was reported in 1961 in an elderly farmer who died from a fox bite.

(Reported by Vincent Taormino, M.D., Raymond Otero, Ph.D., Hospital Microbiologists, Karen Riley, R.N., Nurse Epidemiologist, St. Joseph's Hospital, Lexington; Philip Weiler, M.D., Administrator, Fayette County Health Department; Joseph Skaggs, D.V.M., State Epidemiologist, Bureau of Health Services, Calixto Hernandez, M.D., Kentucky Department of Human Resources; and the Viral Diseases Branch, Bureau of Epidemiology, CDC.)

INTERNATIONAL NOTES

YELLOW FEVER – the Americas, Africa

The Americas

In 1972 Bolivia, Brazil, Colombia, Peru, Surinam, and Venezuela reported a total of 54 cases of jungle yellow fever (Table 1). In Brazil the majority of cases occurred in the south-central part of the State of Goias in a region free from *Aedes aegypti.* Two hundred thousand people living in this zone were vaccinated. Venezuela reported the largest number of cases (22) in 1972, although it had had none since 1966. A recrudescence of jungle yellow fever occurred in June and July, mainly in the States of Barinas and Portuguesa in the western part of the country. There appear to be no *A. aegypti* in this region at the moment. The number of cases reported in the other 4 countries corresponds to the usual endemic prevalence, but it should be noted that in Surinam, where no cases had been reported between 1950 and 1967, 1 case occurred each year in 1968, 1969, and 1972.

The status of the *A. aegypti* eradication campaign in the Americas is much the same as in 1971. By 1960 the campaign, which began in 1947, had resulted in the eradication of *A. aegypti* from 80% of the area formerly infested (nearly 12 million km^2). Since 1964 some countries have relaxed their efforts, and this year the area free from *A. aegypti* is down to 73%.

The World Health Organization is collaborating with the governments of Brazil and Colombia in the maintenance of 2 reference centers for histopathologic diagnosis of yellow fever. Each of these countries also has an institute for the production of 17D yellow fever vaccine.

Africa

Although no epidemic of yellow fever was observed in Africa in 1972, there is now no doubt that cases of jungle yellow fever occur more frequently than they are diagnosed. The risk of their initiating an epidemic is fairly large since *A. aegypti* abound in many regions and in many towns.

Two cases of jungle yellow fever were diagnosed in Cameroon, 1 in the western region at Banso (Kumba) in November 1972 and the other in the southeast at Ayos in December 1972. A fatal case had already been reported in the latter locality in 1970. The first case in 1972 was in an adult aged 40, the second in a 9-year-old child. Both had been hospitalized for jaundice. The diagnosis was confirmed in both cases by histopathologic examination. Four cases of jungle yellow fever were also detected in Ghana (Table 2).

Table 1
Reported Jungle Yellow Fever Cases and Deaths
South America – 1971-1972

Country	1971		1972	
	Cases	Deaths	Cases	Deaths
Bolivia	8	5	9	0
Brazil	11	9	12	7
Colombia	9	7	3	3
Peru	0	0	7	7
Surinam	0	0	1	1
Venezuela	0	0	22	22
Total	28	21	54	40

Table 2
Reported Yellow Fever Cases and Deaths
Africa – 1971-1972

Country	1971		1972	
	Cases	Deaths	Cases	Deaths
Angola	65*	42	0	0
Cameroon	0	0	2	2
Ghana	0	0	4	4
Zaire	2	2	0	0
Total	67	44	6	6

* Includes suspected cases

(Reported by the World Health Organization: Weekly Epidemiological Record, *Vol. 48, No. 35, August 31, 1973.)*

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDING SEPTEMBER 29, 1973 AND SEPTEMBER 30, 1972 (39th WEEK)

AREA	ASEPTIC MENIN-GITIS	BRUCEL-LOSIS	CHICKEN-POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS		
						Primary including unspec. cases		Post In-fectious	Serum (Hepatitis B)	Infectious (Hepatitis A)	
	1973	1973	1973	1973	Cum. 1973	1973	1972	1973	1973	1973	1972
UNITED STATES	202	4	272	16	142	36	31	6	168	1,182	1,120
NEW ENGLAND	11	–	49	–	3	1	4	–	3	58	87
Maine *	–	–	–	–	–	–	–	–	–	–	13
New Hampshire *	–	–	13	–	–	–	–	–	1	6	10
Vermont	–	–	–	–	–	–	–	–	–	6	2
Massachusetts	7	–	22	–	1	–	2	–	–	31	33
Rhode Island	1	–	2	–	2	–	–	–	1	2	14
Connecticut	3	–	12	–	–	1	2	–	1	13	15
MIDDLE ATLANTIC	35	–	6	–	–	6	1	–	29	137	205
Upstate New York	12	–	–	–	–	4	1	–	3	37	55
New York City	2	–	6	–	–	2	–	–	6	33	32
New Jersey	13	–	NN	–	–	–	–	–	14	37	60
Pennsylvania *	8	–	–	–	–	–	–	–	6	30	58
EAST NORTH CENTRAL	28	–	74	–	–	10	7	1	19	126	204
Ohio	5	–	2	–	–	6	3	–	5	22	40
Indiana *	–	–	20	–	–	–	–	–	–	6	10
Illinois	4	–	–	–	–	1	1	1	7	44	67
Michigan	17	–	8	–	–	3	2	–	6	46	82
Wisconsin	2	–	44	–	–	–	1	–	1	8	5
WEST NORTH CENTRAL	4	–	33	–	7	2	9	2	4	54	20
Minnesota	2	–	–	–	–	–	5	–	–	3	2
Iowa	–	–	26	–	–	1	–	2	–	1	2
Missouri	–	–	–	–	–	–	–	–	4	15	7
North Dakota	–	–	6	–	–	–	–	–	–	4	–
South Dakota	–	–	–	–	7	–	–	–	–	19	1
Nebraska	–	–	1	–	–	–	–	–	–	–	2
Kansas	2	–	–	–	–	1	4	–	–	12	6
SOUTH ATLANTIC	28	1	35	–	–	3	1	–	20	224	193
Delaware	–	–	–	–	–	–	–	–	–	5	6
Maryland	3	–	–	–	–	–	–	–	5	2	28
District of Columbia	–	–	2	–	–	–	–	–	2	3	2
Virginia	8	1	–	–	–	2	–	–	2	14	18
West Virginia	–	–	29	–	–	–	–	–	–	5	7
North Carolina	11	–	NN	–	–	–	–	–	2	20	33
South Carolina	2	–	4	–	–	–	–	–	1	18	8
Georgia	–	–	–	–	–	1	–	–	–	22	16
Florida	4	–	–	–	–	–	1	–	8	135	75
EAST SOUTH CENTRAL	35	1	1	1	1	3	1	–	5	88	61
Kentucky	–	–	1	–	–	–	–	–	–	16	22
Tennessee	31	–	NN	–	–	1	–	–	3	59	24
Alabama	3	–	–	1	1	–	1	–	–	6	11
Mississippi	1	1	–	–	–	2	–	–	2	7	4
WEST SOUTH CENTRAL	12	1	16	–	14	5	2	–	5	169	87
Arkansas *	–	–	–	–	–	–	–	–	–	2	2
Louisiana	1	–	NN	–	–	–	2	–	4	21	15
Oklahoma	–	–	2	–	–	2	–	–	–	15	17
Texas	11	1	14	–	14	3	–	–	1	131	53
MOUNTAIN	–	–	9	14	34	–	1	–	1	52	50
Montana	–	–	3	–	–	–	–	–	–	3	1
Idaho	–	–	–	–	–	–	–	–	1	4	5
Wyoming	–	–	–	–	–	–	–	–	–	8	2
Colorado	–	–	2	–	–	–	–	–	–	7	21
New Mexico	–	–	4	14	20	–	1	–	–	24	1
Arizona *	–	–	–	–	14	–	–	–	–	1	9
Utah	–	–	–	–	–	–	–	–	–	5	5
Nevada	–	–	–	–	–	–	–	–	–	–	6
PACIFIC	49	1	49	1	83	6	5	3	82	274	213
Washington	6	–	45	1	75	–	–	–	2	23	15
Oregon	1	–	–	–	3	–	1	–	5	21	29
California	40	1	–	–	3	6	4	3	74	207	168
Alaska	1	–	–	–	2	–	–	–	–	18	1
Hawaii	1	–	4	–	–	–	–	–	1	5	–
Guam	–	–	–	–	–	–	–	–	–	–	1
Puerto Rico	–	–	3	–	–	–	–	–	2	26	27
Virgin Islands	–	–	–	–	–	–	–	–	–	–	–

* Delayed reports: Aseptic meningitis: N.H. 2
Chickenpox: N.H. 4
Encephalitis, primary: Pa. delete 1
Hepatitis B: Ariz. 2
Hepatitis A: Me. 2, Ind. delete 2, Ark. 7, Ariz. 16

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDING SEPTEMBER 29, 1973 AND SEPTEMBER 30, 1972 (39th WEEK) – Continued

AREA	MALARIA		MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS		RUBELLA	
	1973	Cum. 1973	1973	Cumulative		1973	Cumulative		1973	Cum. 1973	1973	Cum. 1973
				1973	1972		1973	1972				
UNITED STATES	5	186	76	24,397	27,210	11	1,086	1,048	428	56,258	84	26,205
NEW ENGLAND	–	15	21	7,401	3,195	–	46	44	27	2,958	6	3,646
Maine*	–	–	1	67	244	–	1	4	–	333	–	69
New Hampshire*	–	–	–	857	280	–	6	3	2	194	–	377
Vermont	–	2	–	119	128	–	3	–	–	261	–	47
Massachusetts	–	6	19	3,949	721	–	12	21	11	869	3	2,048
Rhode Island	–	1	–	605	524	–	3	10	5	353	1	215
Connecticut	–	6	1	1,804	1,298	–	21	6	9	948	2	890
MIDDLE ATLANTIC	1	29	18	2,491	1,023	1	148	127	31	7,285	5	4,198
Upstate New York	1	15	1	803	127	–	52	32	NN	NN	3	425
New York City	–	2	8	911	349	–	29	38	22	4,579	1	471
New Jersey	–	5	5	421	487	1	36	24	6	1,506	1	3,008
Pennsylvania	–	7	4	356	60	–	31	33	3	1,200	–	294
EAST NORTH CENTRAL	–	23	17	8,554	11,087	–	141	150	111	14,375	21	6,016
Ohio	–	4	1	284	251	–	57	61	8	2,688	1	688
Indiana	–	3	–	644	1,245	–	4	11	21	1,216	3	947
Illinois	–	12	3	2,072	4,123	–	24	32	18	2,424	1	964
Michigan	–	4	3	4,378	1,993	–	41	40	19	3,952	8	1,849
Wisconsin	–	–	10	1,176	3,475	–	15	6	45	4,095	8	1,568
WEST NORTH CENTRAL	–	7	1	442	955	1	84	74	42	4,720	2	1,213
Minnesota	–	1	–	21	21	–	8	23	1	82	–	221
Iowa	–	1	–	277	666	–	19	4	28	2,882	–	191
Missouri	–	1	1	53	164	–	32	20	–	687	1	266
North Dakota	–	1	–	58	52	–	3	–	–	66	–	276
South Dakota	–	–	–	–	7	–	4	2	–	19	–	23
Nebraska	–	1	–	6	18	–	10	9	10	145	1	141
Kansas	–	2	–	27	27	1	8	16	3	839	–	95
SOUTH ATLANTIC	1	31	5	1,228	2,172	4	186	238	38	6,627	6	2,137
Delaware	–	–	–	8	51	–	–	1	2	266	–	14
Maryland	1	4	–	12	15	1	25	36	1	635	–	10
District of Columbia	–	1	1	6	2	–	4	10	5	128	–	3
Virginia	–	8	1	419	60	1	36	49	4	704	1	622
West Virginia	–	–	1	214	278	1	5	8	6	2,254	3	311
North Carolina	–	7	–	4	34	–	39	29	NN	NN	–	202
South Carolina	–	1	–	60	216	–	12	20	1	355	–	86
Georgia	–	3	–	152	169	1	22	18	–	31	–	12
Florida	–	7	2	353	1,347	–	43	67	19	2,254	2	877
EAST SOUTH CENTRAL	–	9	1	607	1,049	2	99	81	33	4,649	7	1,322
Kentucky	–	4	1	372	523	–	34	26	5	1,365	1	395
Tennessee	–	–	–	165	193	1	40	28	27	2,168	5	534
Alabama	–	5	–	13	149	–	15	16	–	655	–	186
Mississippi	–	–	–	57	184	1	10	11	1	461	1	207
WEST SOUTH CENTRAL	–	10	3	691	1,501	1	167	127	38	3,802	2	1,453
Arkansas	–	–	–	69	13	–	13	9	2	358	–	112
Louisiana	–	2	–	84	87	1	40	39	–	85	–	99
Oklahoma	–	1	–	55	10	–	29	6	3	439	–	178
Texas	–	7	3	483	1,391	–	85	73	33	2,920	2	1,064
MOUNTAIN	1	10	2	729	1,872	–	32	23	18	2,484	10	2,393
Montana	–	1	–	17	16	–	7	4	–	238	4	506
Idaho	–	–	–	255	119	–	4	6	–	110	–	39
Wyoming	–	–	1	81	51	–	–	1	3	424	–	7
Colorado	–	2	–	105	527	–	11	5	8	463	1	1,546
New Mexico	–	2	1	125	122	–	3	3	4	970	3	196
Arizona	–	4	–	17	881	–	3	1	–	140	–	19
Utah	1	1	–	128	155	–	2	2	3	131	2	77
Nevada	–	–	–	1	1	–	2	1	–	8	–	3
PACIFIC	2	52	8	2,254	4,356	2	183	184	90	9,358	25	3,827
Washington	–	3	–	1,014	977	–	20	16	23	1,461	5	673
Oregon	–	4	1	460	133	1	13	14	14	1,737	2	787
California	2	42	7	696	3,135	1	144	143	46	5,183	18	2,332
Alaska	–	2	–	65	13	–	6	8	3	710	–	9
Hawaii	–	1	–	19	98	–	–	3	4	267	–	26
Guam	–	–	–	50	15	–	–	12	–	20	–	13
Puerto Rico	–	–	15	1,845	703	–	8	4	15	717	1	31
Virgin Islands	–	–	–	1	3	–	–	2	–	24	–	2

* Delayed reports: Measles: Me. 1
Mumps: Me. 1, N.H. 1
Rubella: Me. 1, N.H. 2

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDING SEPTEMBER 29, 1973 AND SEPTEMBER 30, 1972 (39th WEEK) – Continued

AREA	TETANUS	TUBERCULOSIS (New Active)		TULAREMIA	TYPHOID FEVER		TYPHUS-FEVER TICK-BORNE (Rky. Mt. spotted fever)		VENEREAL DISEASES		RABIES IN ANIMALS	
									GONORRHEA	SYPHILIS (Pri. & Sec.)		
	Cumulative 1973	1973	Cum. 1973	Cumulative 1973	1973	Cum. 1973	1973	Cum. 1973	1973	1973	1973	Cum. 1973
UNITED STATES	68	745	23,717	131	16	524	15	577	18,118	504	45	2,688
NEW ENGLAND	2	25	862	–	1	14	–	2	530	13	–	101
Maine	–	6	74	–	–	–	–	–	22	–	–	56
New Hampshire	–	1	45	–	–	–	–	–	11	–	–	35
Vermont	–	–	24	–	–	–	–	–	22	3	–	3
Massachusetts	–	5	453	–	–	13	–	1	237	4	–	6
Rhode Island	1	2	72	–	–	–	–	–	74	1	–	–
Connecticut	1	11	194	–	1	1	–	1	164	5	–	1
MIDDLE ATLANTIC	7	156	4,648	–	1	50	1	29	2,285	71	1	42
Upstate New York	1	25	826	–	–	8	–	13	654	6	–	17
New York City	3	57	1,729	–	1	19	–	4	630	37	–	–
New Jersey*	2	37	815	–	–	14	1	4	379	17	–	2
Pennsylvania	1	37	1,278	–	–	9	–	8	622	11	1	23
EAST NORTH CENTRAL	11	93	3,583	3	1	36	–	19	1,984	19	3	264
Ohio	3	24	1,066	–	–	15	–	14	576	7	–	32
Indiana	2	4	472	–	–	–	–	–	223	1	–	51
Illinois	3	30	1,069	1	1	9	–	5	260	5	1	68
Michigan	1	35	899	2	–	10	–	–	691	5	–	7
Wisconsin	2	–	77	–	–	2	–	–	234	1	2	106
WEST NORTH CENTRAL	6	38	997	14	1	24	–	20	1,138	20	19	852
Minnesota	–	6	123	–	–	4	–	–	186	–	5	309
Iowa	–	3	99	–	–	–	–	7	246	3	6	176
Missouri	5	14	459	13	–	12	–	7	139	14	4	84
North Dakota	1	1	35	–	–	–	–	–	28	–	1	134
South Dakota	–	6	76	–	–	1	–	–	80	–	–	77
Nebraska	–	–	67	–	–	1	–	2	226	1	–	3
Kansas	–	8	138	1	1	6	–	4	233	2	3	69
SOUTH ATLANTIC	13	123	4,712	16	4	239	7	290	4,627	151	5	240
Delaware	–	–	75	–	–	–	1	8	63	–	–	3
Maryland	–	17	517	5	–	6	–	13	432	15	–	14
District of Columbia	–	9	215	–	–	–	–	–	476	14	–	–
Virginia	2	15	620	4	–	3	–	59	419	30	2	71
West Virginia	–	4	223	–	4	6	–	4	71	1	–	22
North Carolina	–	17	770	2	–	5	3	130	1,184	3	1	6
South Carolina*	1	6	372	–	–	6	–	30	303	37	–	5
Georgia	2	16	768	3	–	1	3	45	620	13	2	80
Florida	8	39	1,152	2	–	212	–	1	1,059	38	–	39
EAST SOUTH CENTRAL	8	64	2,087	10	2	39	6	103	1,767	26	2	366
Kentucky	1	10	487	1	–	10	–	–	166	8	–	197
Tennessee	5	33	657	7	1	12	2	50	608	8	2	128
Alabama	2	7	548	–	–	10	3	20	679	3	–	40
Mississippi	–	14	395	2	1	7	1	33	314	7	–	1
WEST SOUTH CENTRAL	12	57	2,412	83	–	22	1	98	2,273	89	6	468
Arkansas*	1	11	302	60	–	4	–	19	503	1	–	101
Louisiana	3	–	363	–	–	6	–	–	558	36	1	38
Oklahoma	4	7	207	17	–	2	–	70	215	5	2	141
Texas	4	39	1,540	6	–	10	1	9	997	47	3	188
MOUNTAIN	–	18	768	4	–	10	–	8	917	20	–	43
Montana	–	1	37	–	–	–	–	1	27	–	–	10
Idaho	–	–	28	–	–	1	–	2	113	1	–	–
Wyoming	–	1	22	–	–	1	–	1	8	–	–	–
Colorado	–	5	141	–	–	2	–	1	361	5	–	–
New Mexico	–	8	162	1	–	2	–	3	87	3	–	6
Arizona*	–	3	294	–	–	4	–	–	216	5	–	24
Utah	–	–	37	2	–	–	–	–	70	–	–	3
Nevada	–	–	47	1	–	–	–	–	35	6	–	–
PACIFIC	9	171	3,648	1	6	90	–	8	2,597	95	9	312
Washington	3	5	281	–	–	7	–	5	306	4	1	7
Oregon	1	8	194	–	–	2	–	2	185	–	1	8
California	5	106	2,831	1	6	76	–	1	1,971	90	7	289
Alaska	–	8	84	–	–	4	–	–	67	–	–	8
Hawaii	–	44	258	–	–	1	–	–	68	1	–	–
Guam	–	–	35	–	–	–	–	–	–	–	–	–
Puerto Rico	4	23	379	–	–	7	–	–	97	13	–	39
Virgin Islands	–	–	2	–	–	–	–	–	1	–	–	–

* Delayed reports: Tetanus: Ark. 1
Tularemia: Ark. 1
Typhoid: N.J. delete 1, Ark. 1, Ariz. 1
RMSF: N.J. delete 2, Ark. 2
Syphilis: S.C. delete 16
Rabies: Ariz. 2

Week No. 39

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDING SEPTEMBER 29, 1973

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes			Pneumonia and Influenza	Area	All Causes			Pneumonia and Influenza
	All Ages	65 years and over	Under 1 year	All Ages		All Ages	65 years and over	Under 1 year	All Ages
NEW ENGLAND	657	417	31	41	SOUTH ATLANTIC	1,237	642	38	38
Boston, Mass.	196	112	14	11	Atlanta, Ga.	177	75	10	8
Bridgeport, Conn.	42	27	2	2	Baltimore, Md.	213	99	6	5
Cambridge, Mass.	28	25	–	6	Charlotte, N. C.	58	29	–	1
Fall River, Mass.	27	19	–	–	Jacksonville, Fla.	104	49	3	–
Hartford, Conn.	45	27	1	2	Miami, Fla.	73	45	2	–
Lowell, Mass.	26	15	–	3	Norfolk, Va.	51	22	2	1
Lynn, Mass.	16	9	–	1	Richmond, Va.	85	44	2	3
New Bedford, Mass.	25	17	–	1	Savannah, Ga.	30	14	3	2
New Haven, Conn.	50	28	8	–	St. Petersburg, Fla.	134	110	–	5
Providence, R. I.	50	32	2	7	Tampa, Fla.	72	43	2	10
Somerville, Mass.	5	5	–	–	Washington, D. C.	187	83	8	3
Springfield, Mass.	44	28	1	4	Wilmington, Del.	53	29	–	–
Waterbury, Conn.	40	29	–	–					
Worcester, Mass.	63	44	3	4	EAST SOUTH CENTRAL	668	377	30	31
					Birmingham, Ala.	118	53	3	3
MIDDLE ATLANTIC	3,024	1,792	109	161	Chattanooga, Tenn.	58	39	4	8
Albany, N. Y.	57	33	5	–	Knoxville, Tenn.	45	30	–	1
Allentown, Pa.	25	19	–	5	Louisville, Ky.	93	56	5	5
Buffalo, N. Y.	154	85	8	14	Memphis, Tenn.	147	87	6	2
Camden, N. J.	48	28	2	2	Mobile, Ala.	67	33	4	3
Elizabeth, N. J.	23	12	–	–	Montgomery, Ala.	29	19	2	4
Erie, Pa.	36	23	1	2	Nashville, Tenn.	111	60	6	5
Jersey City, N. J.	65	44	4	4					
Newark, N. J.	61	27	1	1	WEST SOUTH CENTRAL	1,204	645	60	36
New York City, N. Y.†	1,418	842	38	64	Austin, Tex.	36	26	1	1
Paterson, N. J.	32	21	–	3	Baton Rouge, La.	40	24	3	–
Philadelphia, Pa.	498	279	30	34	Corpus Christi, Tex.	34	18	4	1
Pittsburgh, Pa.	181	108	5	11	Dallas, Tex.	170	87	6	4
Reading, Pa.	40	30	–	3	El Paso, Tex.	51	24	7	4
Rochester, N. Y.	127	75	6	8	Fort Worth, Tex.	87	48	3	4
Schenectady, N. Y.	30	20	1	–	Houston, Tex.	261	129	12	7
Scranton, Pa.	37	28	–	1	Little Rock, Ark.	50	30	–	4
Syracuse, N. Y.	98	60	6	1	New Orleans, La.	142	73	12	2
Trenton, N. J.	40	25	1	2	Oklahoma City, Okla.*	84	48	4	2
Utica, N. Y.	22	15	1	1	San Antonio, Tex.	122	65	2	1
Yonkers, N. Y.	32	18	–	5	Shreveport, La.	57	32	2	1
					Tulsa, Okla.	70	41	4	5
EAST NORTH CENTRAL	2,506	1,467	88	61					
Akron, Ohio	63	41	3	–	MOUNTAIN	575	329	32	20
Canton, Ohio	41	29	3	5	Albuquerque, N. Mex.	72	39	3	6
Chicago, Ill.	701	385	21	18	Colorado Springs, Colo.	34	24	–	4
Cincinnati, Ohio	147	92	3	3	Denver, Colo.	134	77	12	2
Cleveland, Ohio	191	111	2	2	Las Vegas, Nev.	34	22	–	2
Columbus, Ohio	138	74	6	–	Ogden, Utah	22	15	–	4
Dayton, Ohio	96	55	2	–	Phoenix, Ariz.	117	59	9	–
Detroit, Mich.	335	192	18	11	Pueblo, Colo.	22	12	3	1
Evansville, Ind.	34	26	–	1	Salt Lake City, Utah	61	39	3	1
Fort Wayne, Ind.	50	30	2	1	Tucson, Ariz.	79	42	2	–
Gary, Ind.	31	12	2	3					
Grand Rapids, Mich.	60	33	5	5	PACIFIC	1,748	1,076	66	33
Indianapolis, Ind.	154	87	7	3	Berkeley, Calif.	16	10	–	–
Madison, Wis.	28	16	–	3	Fresno, Calif.	55	26	4	–
Milwaukee, Wis.	135	102	1	–	Glendale, Calif.	31	26	–	–
Peoria, Ill.	49	30	5	–	Honolulu, Hawaii	50	22	4	1
Rockford, Ill.	55	34	3	6	Long Beach, Calif.	123	77	5	2
South Bend, Ind.	49	30	2	–	Los Angeles, Calif.	603	383	22	13
Toledo, Ohio	108	64	3	–	Oakland, Calif.	91	53	1	–
Youngstown, Ohio	41	24	–	–	Pasadena, Calif.	35	30	–	–
					Portland, Oreg.	123	83	1	1
WEST NORTH CENTRAL	752	445	40	33	Sacramento, Calif.	62	34	3	1
Des Moines, Iowa	72	39	3	–	San Diego, Calif.	126	66	11	7
Duluth, Minn.	31	14	–	3	San Francisco, Calif.	178	102	9	–
Kansas City, Kans.	40	19	7	2	San Jose, Calif.	41	30	1	2
Kansas City, Mo.	123	67	8	1	Seattle, Wash.	114	71	1	2
Lincoln, Nebr.	25	17	3	–	Spokane, Wash.	48	30	4	3
Minneapolis, Minn.	78	54	–	2	Tacoma, Wash.	52	33	–	–
Omaha, Nebr.	65	34	4	1					
St. Louis, Mo.	217	134	10	18	Total	12,371	7,190	494	454
St. Paul, Minn.	63	44	–	1					
Wichita, Kans.	38	23	5	5	Expected Number	12,111	6,862	543	391
					Cumulative Total (includes reported corrections for previous weeks)	502,628	295,563	18,831	20,390

† Delayed report for week ending September 22, 1973

* Estimate based on average percent of divisional total

CURRENT TRENDS
PRIMARY AND SECONDARY SYPHILIS – United States, August 1973

In August 1973, provisionally reported cases of infectious syphilis in the United States increased 1.3% over the number reported in August 1972. The 17,015 cases reported between January and August 1973 represent an increase of 668 cases (4.1%) over the same period in 1972. Since April 1973, reported cases of primary and secondary syphilis have increased 1.3% over those reported in the same period of 1972. The diminished rate of increase of infectious syphilis observed since April is believed to be a result of intensified federal, state, and local venereal disease control efforts. *(Reported by the Venereal Disease Branch, Bureau of State Services, CDC.)*

SUMMARY OF REPORTED CASES OF INFECTIOUS SYPHILIS

CASES OF PRIMARY AND SECONDARY SYPHILIS: By Reporting Areas – August 1973 and August 1972 – Provisional Data

Reporting Area	August		Cumulative Jan. – Aug.		Reporting Area	August		Cumulative Jan. – Aug.	
	1973	1972	1973	1972		1973	1972	1973	1972
NEW ENGLAND	89	62	757	577	EAST SOUTH CENTRAL	113	143	895	949
Maine	6	3	20	21	Kentucky	29	56	247	214
New Hampshire	1	1	6	6	Tennessee	37	36	286	331
Vermont	–	–	13	11	Alabama	23	28	124	144
Massachusetts	71	38	530	323	Mississippi	24	23	238	260
Rhode Island	–	1	14	27					
Connecticut	11	19	174	189	WEST SOUTH CENTRAL	214	256	1,794	2,027
					Arkansas	9	13	101	142
MIDDLE ATLANTIC	487	542	3,836	3,895	Louisiana	59	89	548	601
Upstate New York	38	42	271	290	Oklahoma	15	7	119	65
New York City	281	342	2,373	2,684	Texas	131	147	1,026	1,219
Pa. (Excl. Phila.)	36	18	180	125					
Philadelphia	46	30	329	209	MOUNTAIN	59	53	384	343
New Jersey	86	110	683	587	Montana	1	–	2	5
					Idaho	2	–	9	3
EAST NORTH CENTRAL	206	264	1,520	1,751	Wyoming	–	–	3	9
Ohio	20	26	186	217	Colorado	23	11	144	53
Indiana	22	48	198	164	New Mexico	13	8	54	70
Downstate Illinois	27	7	132	100	Arizona	13	20	112	138
Chicago	84	115	610	712	Utah	3	–	11	15
Michigan	44	63	337	529	Nevada	4	14	49	50
Wisconsin	9	5	57	29					
					PACIFIC	400	353	2,898	2,401
WEST NORTH CENTRAL	30	38	213	201	Washington	12	9	102	82
Minnesota	10	11	72	37	Oregon	2	6	32	32
Iowa	4	9	34	37	California	384	336	2,715	2,258
Missouri	11	8	79	80	Alaska	1	1	11	13
North Dakota	–	–	1	–	Hawaii	1	1	38	16
South Dakota	1	1	4	2					
Nebraska	4	2	9	16	U.S. TOTAL	2,341	2,312	17,015	16,347
Kansas	–	7	14	29					
					TERRITORIES	66	92	540	598
SOUTH ATLANTIC	743	601	4,718	4,203	Puerto Rico	63	83	519	541
Delaware	7	4	66	43	Virgin Islands	3	9	21	57
Maryland	96	80	580	636					
District of Columbia	74	79	525	547					
Virginia	71	66	498	313					
West Virginia	2	1	13	16					
North Carolina	44	36	413	346					
South Carolina	98	29	481	308					
Georgia	124	171	855	940					
Florida	227	135	1,287	1,054					

Note: Cumulative Totals include revised and delayed reports through previous months.

EPIDEMIOLOGIC NOTES AND REPORTS
BABESIOSIS – Massachusetts

On September 4, 1973, a 48-year-old woman living on Nantucket Island, Massachusetts, presented to her private physician complaining of daily recurrent chills and fever and myalgia in her legs and side that had begun 1 week before; she also reported moderately severe depression. She denied headache, nausea, and diarrhea and on physical examination had no rash, adenopathy, or splenomegaly.

The patient had received a tick bite in mid-August which became inflamed. On August 17, her physician had excised the local abscess containing the tick head.

Because of this history, Rocky Mountain spotted fever was suspected, and the patient was admitted to a local hospital. She was treated with tetracycline but did not respond. On September 6, her temperature was 104°F., and her peripheral blood was examined at the request of her physician. Small ring-like intracellular parasites were seen and identified as *Babesia* organisms. The diagnosis was confirmed at CDC, where the organism was thought to be *Babesia microti.*

The patient's white blood cell counts ranged from 3,900 to 5,700 during her hospitalization, with a relative lymphocytosis as high as 57%. Blood chemistry examination was unremarkable except for moderately elevated alkaline phosphatase and LDH enzymes. Treatment with chloroquine phosphate was started on September 6, 1.5 gm by mouth

BABESIOSIS – Continued

initially then 0.5 gm daily; a prompt reduction in fever was noted. Only rare organisms were seen on peripheral smear after September 8, and none were seen after September 17. On September 10, however, her hematocrit dropped from 38% to 27%, and hemolysis was diagnosed; the hemoglobin fell to 8.2 gm%. The patient became moderately hypotensive on 2 occasions. She was transfused with 2 units of blood on September 10 and 13. Her hospitalization was otherwise uneventful, and she was discharged on September 28 on a course of 0.5 gm of chloroquine daily.

Gerbil inoculation tests at the local hospital using the patient's whole blood resulted in growth of *Babesia* organisms after a 15-day incubation; these organisms are being examined for species identification at CDC. The patient's serum was positive at a titer of 1:1024 to *B. microti* antigen by the indirect fluorescent antibody test.

The patient gave a history of insulin-treated *Diabetes mellitus* and of severe hepatitis in 1963. She had no splenectomy, immunosuppressive therapy, or other conditions known to predispose to parasitic infection.

The patient said that she had not traveled outside the United States since 1971 and had lived in southeast Nantucket with her son since June 1973. She gave no history of recent blood transfusion or parenteral drug use. She had 2 dogs, but there were no other pets or farm animals in or near the house; rats lived under the house, but no recent increase in the number of rats or other small rodents had been noticed. Ticks have been relatively common on Cape Cod and Nantucket this year, but the number of cases of Rocky Mountain spotted fever reported has been within the usual low expected range.

(Reported by Paul Cassady, M.D., private physician, Nantucket; A.E. Anderson, M.D., Department of Pathology, Cape Cod Hospital, Hyannis; Nicholas J. Fiumara, M.D., Director, Division of Communicable Diseases, Massachusetts Department of Public Health; and the General Parasitology Section, Parasitology Branch, Bureau of Laboratories, CDC.)

Editorial Note

Babesiosis is a febrile illness common in many species of domestic animals and rodents in the United States but very rare in humans. It is caused by infection with any of several species of *Babesia*, an intracellular hematogenous sporozoan parasite related to the *Plasmodia* of malaria and transmitted from 1 vertebrate host to another by tick vector. Four previous recognized human cases have occurred, 2 in the United States, 1 of which was also probably acquired on Nantucket Island *(1)*. These 2 cases associated with Nantucket were the only cases reported in patients who had not had a prior splenectomy which presumably would have predisposed them to infection.

The diagnosis of babesiosis is based on the morphologic appearance of the red-cell parasite. *Babesia* can easily be mistaken for *Plasmodia* on peripheral smear, but the intracellular parasites are atypical in shape, produce no pigment, and have no schizont or gametocyte forms. Of the 5 babesiosis cases reported, 2 were fatal; all 3 nonfatal cases were in patients who received chloroquine.

Reference

1. Western KA, Benson GD, Gleason NN, *et al*: Babesiosis in a Massachusetts resident. N Engl J Med 283:854-856, 1970

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The data in this report are provisional, based on weekly telegraphs to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

In addition to the established procedures for reporting morbidity and mortality, the editor welcomes accounts of interesting outbreaks or case investigations of current interest to health officials.

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