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

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CONTENTS

EPIDEMIOLOGIC NOTES AND REPORTS

BAT CAVE-ASSOCIATED HISTOPLASMOSIS – Florida

On February 10, 1973, a healthy 18-year-old girl from north central Florida was admitted to the University of Florida Medical Center in severe respiratory distress. Therapy with supplemental oxygen, systemic corticosteroids, and ventilatory assistance was initiated for presumed influenza pneumonia. On the 3rd hospital day, the patient's mother related the occurrence of a respiratory illness in several of her daughter's friends, 3 of whom had been recently hospitalized elsewhere. Subsequently, *Histoplasma capsulatum* was cultured from a bone marrow aspirate.

On further questioning, it was learned that between January 1 and 21, 1973, the patient and 28 members of a church-sponsored youth group, 21 males and 8 females, had explored a bat-infested limestone cave in Suwannee County, Florida. They had entered the cave on 1 or 2 occasions for approximately 30 minutes. Attempting to encourage the bats to fly, the youths had thrown soil from the cave floor at them. Upon experiencing mild shortness of breath in the dusty atmosphere, several of the explorers left the cave.

Twenty-three of the 29 spelunkers were subsequently identified as infected, for an attack rate of 79%. Predominant symptoms were cough, fever, night sweats, dyspnea on exertion, malaise, and chest congestion. Illness became evident

TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	15th WEEK ENDING		MEDIAN 1968-1972	CUMULATIVE, FIRST 15 WEEKS		
	April 14, 1973	April 15, 1972		1973	1972	MEDIAN 1968-1972
Aseptic meningitis	53	26	26	555	483	428
Brucellosis	3	2	6	28	34	34
Chickenpox	7,415	5,409	– – –	84,729	59,735	– – –
Diphtheria	4	3	2	65	30	45
Encephalitis, primary:						
Arthropod-borne and unspecified	15	23	23	271	234	286
Encephalitis, post-infectious	4	8	7	59	74	92
Hepatitis, serum (Hepatitis B)	153	196	145	2,134	2,791	1,947
Hepatitis, infectious (Hepatitis A)	1,099	1,127	1,018	14,738	16,652	16,241
Malaria	3	15	60	63	420	696
Measles (rubeola)	1,433	1,135	1,135	11,894	12,844	12,844
Meningococcal infections, total	34	26	80	505	516	1,043
Civilian	34	25	60	490	493	931
Military	–	1	6	15	23	111
Mumps	2,418	2,182	3,892	29,771	31,718	40,395
Rubella (German measles)	1,617	781	2,155	12,459	10,483	19,236
Tetanus	–	1	2	15	23	24
Tuberculosis, new active	614	690	– – –	8,866	9,136	– – –
Tularemia	1	4	2	19	32	28
Typhoid fever	20	5	5	281	73	66
Typhus, tick-borne (Rky. Mt. spotted fever)	1	6	1	11	19	4
Venereal Diseases:						
Gonorrhea	14,452	14,271	– – –	217,249	194,108	– – –
Syphilis, primary and secondary	515	516	– – –	7,824	6,695	– – –
Rabies in animals	95	102	102	968	1,246	1,153

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	1	Poliomyelitis, total:	–
Botulism:	–	Paralytic:	–
Congenital rubella syndrome:	7	Psittacosis:	3
Leprosy: Calif. – 1	37	Rabies in man:	–
Leptospirosis:	10	Trichinosis: Conn. – 1, Ohio – 1	31
Plague:	–	Typhus, murine:	5

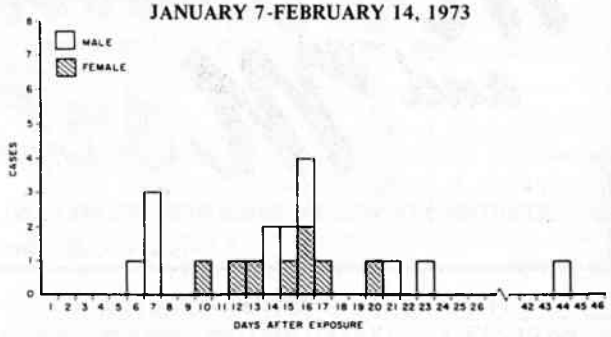
HISTOPLASMOSIS – Continued

between 6 and 44 days after exposure (Figure 1). Intradermal histoplasmin tests on 24 of the spelunkers revealed that 15 of 18 reporting illness and 3 of 6 reporting no illness had 10 mm induration or greater at 48 hours. Sera from 26 of the 29 explorers were examined for histoplasmin precipitin bands; 11 of the 20 persons reporting illness that were sampled and 2 of the 6 persons reporting no illness had positive m band precipitins. Yeast form complement fixation tests performed on 10 of the 20 persons reporting illness revealed titers >1:32 in all 10; titers in the 6 persons reporting no illness were not detectable. One convalescent serum from a patient reporting illness demonstrated a histoplasmin titer >1:32. Chest roentgenograms demonstrated a diffuse miliary infiltrate compatible with acute pulmonary histoplasmosis in 14 of 17 people reporting illness and in 1 of 3 who were clinically well (Table 1). Histoplasmin skin test surveys of 103 local residents revealed indurations of 10 mm or greater in 7 (7%). Histoplasmin and yeast form complement fixation titers on each of 110 sera obtained from local residents were negative. Soil samples taken from the cave floor and bats collected in the cave were submitted to CDC for fungal isolation. Results are pending.

(Reported by Edward Haskell, M.D., Branford, Florida; Robert Waldman, M.D., Associate Professor, Medicine and Microbiology, Stephen R. Zellner, M.D., Clinical Fellow, Division of Infectious and Immunologic Diseases, and Richard Lottenberg, Medical Center, University of Florida College of Medicine; E. Charlton Prather, M.D., Epidemiologist, and Ralph B. Hogan, M.D., State Epidemiologist, Florida Division of Health; the Mycology Branch, Laboratory Division, CDC; and an EIS Officer.)

Figure 1

HISTOPLASMOSIS CASES WITH SINGLE DATE OF EXPOSURE BY INCUBATION PERIOD – SUWANNEE COUNTY, FLORIDA JANUARY 7-FEBRUARY 14, 1973



Editorial Note

Histoplasmosis is most prevalent in the Mississippi and Missouri River valleys. Contact with soil containing an accumulation of either bat or bird excreta is usually required for acquisition of histoplasmosis, and recent evidence suggests that bat habitats are infested with *H. capsulatum.*

Histoplasmosis in humans has been reported from Florida on only 2 previous occasions *(1),* and both cases were associated with exploration of bat caves; however, the outbreak presented here is the largest known instance of cave-associated histoplasmosis in the state. The data suggest that bat caves infested with *H. capsulatum* are a significant source of infection primarily for subjects who explore them.

Reference

1. DiSalvo AF, Bigler WJ, Ajello L, Johnson JE, Palmer J: Bat and soil studies for sources of histoplasmosis in Florida. Public Health Rep 85:1063-1069, 1970

Table 1
Laboratory Results on Patients with Acute Pulmonary Histoplasmosis
Suwannee County, Florida – February 1973

	Histoplasmin Skin Test >10 mm Induration			Precipitin m Band			Complement Fixation ≥1:32			Chest X-Ray Compatible		
	Positive	Negative	Not Done	Positive	Negative	Not Done	Positive	Negative	Not Done	Positive	Negative	Not Done
Patients ill	15	3	5	11	9	3	10	10	3	14	3	6
Patients not ill	3	3	0	2	4	0	2	4	0	1	2	3

SURVEILLANCE SUMMARY
VENEZUELAN EQUINE ENCEPHALITIS – United States, Mexico, 1972

In 1972, no cases of Venezuelan equine encephalitis (VEE) were reported in equines in the United States, nor was the virus isolated from mosquitoes tested as a part of surveillance activities. However, 2 human VEE cases, imported from Mexico, were reported from California; 1 was confirmed by viral isolation.

Several VEE outbreaks were reported from Mexico in 1972. The 1st cases in equines were reported from the State of Durango, adjacent to areas where the disease was active in 1971 (Figure 2). Serum specimens from 26 acutely ill equines were collected June 2 in the east central part of the state, and an epidemic strain of VEE virus was identified from 8 of the samples. By early July, VEE had been reported by livestock officials in Durango, Nayarit, and Guerrero, and there were indications of VEE activity in Morelos and Sinaloa. On August 9, blood samples were collected from 7 race horses in Navajoa, Sonora, and epidemic VEE virus was isolated from 2. Equine cases were subsequently reported as far north as an area 40 miles west of Hermosillo (165 miles south of the Arizona-Sonora border). Approximately 1,000 equine and 8 human deaths were recorded in the Sonora outbreak.

In September the disease ceased its northward spread and retreated south. The virus was isolated from 5 of 22 specimens collected between November 17 and 30 in the States of Mexico and Oaxaca. On January 10, 1973, in an area a few kilometers from the confirmed VEE horse cases of November 17, approximately 275 mosquito pools were collected. From 1 pool of 50 *Culiseta inornata,* an epidemic strain of VEE was isolated. This represents the 1st isolate made in a program to study the over-wintering activity of VEE virus.

(Continued on page 131)

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDING APRIL 14, 1973 AND APRIL 15, 1972 (15th WEEK) – Continued

AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS		
						Primary including unspec. cases		Post Infectious	Serum (Hepatitis B)	Infectious (Hepatitis A)	
	1973	1973	1973	1973	Cum. 1973	1973	1972	1973	1973	1973	1972
UNITED STATES	53	3	7,415	4	65	15	23	4	153	1,099	1,127
NEW ENGLAND	3	–	987	–	2	–	–	–	3	49	91
Maine*	–	–	–	–	–	–	–	–	–	1	8
New Hampshire *	2	–	35	–	–	–	–	–	–	6	3
Vermont	–	–	48	–	–	–	–	–	1	8	8
Massachusetts	–	–	549	–	–	–	–	–	–	13	46
Rhode Island	1	–	124	–	2	–	–	–	–	4	12
Connecticut	–	–	231	–	–	–	–	–	2	17	14
MIDDLE ATLANTIC	14	–	179	–	–	1	3	2	35	143	182
Upstate New York	1	–	5	–	–	–	–	1	10	60	44
New York City	2	–	171	–	–	–	3	–	15	26	32
New Jersey	11	–	NN	–	–	–	–	–	4	36	57
Pennsylvania	–	–	3	–	–	1	–	1	6	21	49
EAST NORTH CENTRAL	4	–	3,669	–	–	3	11	1	30	213	158
Ohio	–	–	1,171	–	–	3	2	–	7	41	29
Indiana*	–	–	240	–	–	–	6	–	2	7	10
Illinois	–	–	–	–	–	–	2	1	9	69	37
Michigan	4	–	954	–	–	–	1	–	12	92	72
Wisconsin *	–	–	1,304	–	–	–	–	–	–	4	10
WEST NORTH CENTRAL	–	–	856	1	7	–	–	–	1	41	55
Minnesota	–	–	21	–	–	–	–	–	1	9	1
Iowa *	–	–	588	–	–	–	–	–	–	4	11
Missouri	–	–	140	–	–	–	–	–	–	10	25
North Dakota	–	–	47	–	–	–	–	–	–	3	2
South Dakota	–	–	–	1	7	–	–	–	–	–	4
Nebraska	–	–	15	–	–	–	–	–	–	1	–
Kansas	–	–	45	–	–	–	–	–	–	14	12
SOUTH ATLANTIC	7	–	514	–	–	2	3	1	15	162	177
Delaware	–	–	24	–	–	1	–	–	–	3	1
Maryland	–	–	57	–	–	–	–	–	1	6	21
District of Columbia	–	–	11	–	–	–	–	–	–	1	3
Virginia	2	–	51	–	–	–	–	1	1	22	29
West Virginia	–	–	280	–	–	–	–	–	–	4	8
North Carolina	1	–	NN	–	–	–	1	–	1	19	34
South Carolina	–	–	91	–	–	1	–	–	1	16	8
Georgia	–	–	–	–	–	–	–	–	–	25	11
Florida	4	–	–	–	–	–	2	–	11	66	62
EAST SOUTH CENTRAL	1	–	83	–	–	1	1	–	11	104	65
Kentucky	–	–	54	–	–	–	1	–	10	67	29
Tennessee	–	–	NN	–	–	1	–	–	–	36	21
Alabama	–	–	25	–	–	–	–	–	–	–	4
Mississippi	1	–	4	–	–	–	–	–	1	1	11
WEST SOUTH CENTRAL	9	1	324	–	2	6	–	–	14	173	120
Arkansas *	–	–	9	–	–	–	–	–	–	4	5
Louisiana	3	–	NN	–	–	5	–	–	9	34	9
Oklahoma	4	–	51	–	–	1	–	–	–	20	9
Texas	2	1	264	–	2	–	–	–	5	115	97
MOUNTAIN	2	–	200	–	2	1	3	–	2	28	58
Montana	–	–	30	–	–	–	1	–	–	5	4
Idaho	–	–	–	–	–	–	–	–	–	8	3
Wyoming	–	–	40	–	–	–	–	–	–	1	–
Colorado	2	–	71	–	–	1	–	–	1	3	18
New Mexico	–	–	26	–	2	–	–	–	1	6	10
Arizona *	–	–	–	–	–	–	–	–	–	–	13
Utah	–	–	33	–	–	–	1	–	–	5	9
Nevada	–	–	–	–	–	–	1	–	–	–	1
PACIFIC	13	2	603	3	52	1	2	–	42	186	221
Washington	–	–	504	3	47	–	–	–	1	12	22
Oregon	–	–	–	–	3	–	1	–	1	13	41
California	11	2	–	–	2	1	1	–	40	154	142
Alaska	–	–	29	–	–	–	–	–	–	4	12
Hawaii	2	–	70	–	–	–	–	–	–	3	4
Guam *	–	–	–	–	–	–	–	–	–	–	7
Puerto Rico	–	–	9	–	–	–	–	–	1	22	18
Virgin Islands	–	–	2	–	–	–	–	–	–	2	–

*Delayed reports: Aseptic meningitis: N.H. 2
Chickenpox: Me. 29, N.H. 2, Iowa 278, Ark. 2, Guam 8
Encephalitis, primary: Iowa 1
Hepatitis B: Wis. 1, Ariz. 3
Hepatitis A: Ind. delete 2, Wis. 4, Iowa 4, Ark. 8, Ariz. 2, Guam 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDING APRIL 14, 1973 AND APRIL 15, 1972 (15th 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	3	63	1,433	11,894	12,844	34	505	516	2,418	29,771	1,617	12,459
NEW ENGLAND	1	5	374	4,258	961	2	25	24	107	1,264	394	1,460
Maine *	–	–	–	14	142	–	–	3	–	67	–	34
New Hampshire *	–	–	17	569	93	–	3	–	5	113	158	173
Vermont	–	2	–	77	70	–	2	–	2	161	1	11
Massachusetts	1	1	211	2,336	148	1	10	13	36	468	188	818
Rhode Island	–	–	1	284	133	–	1	6	27	125	6	58
Connecticut	–	2	145	978	375	1	9	2	37	330	41	366
MIDDLE ATLANTIC	1	9	87	945	612	5	71	56	336	3,210	60	1,343
Upstate New York	–	4	12	228	57	2	26	15	NN	NN	19	147
New York City	–	1	40	520	116	–	13	12	211	1,999	28	154
New Jersey	–	1	21	101	416	3	17	16	65	606	–	875
Pennsylvania	1	3	14	96	23	–	15	13	60	605	13	167
EAST NORTH CENTRAL	–	7	412	3,785	4,862	5	54	66	754	8,257	321	2,743
Ohio	–	2	22	168	159	1	27	21	217	1,380	64	294
Indiana	–	1	55	326	780	–	1	9	39	654	77	594
Illinois	–	2	48	921	1,694	3	10	15	102	1,532	22	313
Michigan	–	2	247	1,806	841	1	16	18	227	2,163	51	678
Wisconsin	–	–	40	564	1,388	–	–	3	169	2,528	107	864
WEST NORTH CENTRAL	–	2	10	239	426	1	39	44	232	3,084	68	723
Minnesota	–	–	–	14	13	–	–	9	3	59	13	132
Iowa *	–	–	9	160	218	–	5	–	190	2,075	24	143
Missouri	–	–	1	13	132	1	20	12	13	334	–	208
North Dakota	–	1	–	28	31	–	3	–	1	35	7	42
South Dakota	–	–	–	–	4	–	3	2	1	7	1	4
Nebraska	–	–	–	1	10	–	4	7	4	74	23	113
Kansas	–	1	–	23	18	–	4	14	20	500	–	81
SOUTH ATLANTIC	–	7	324	640	1,176	7	87	111	254	3,458	176	1,089
Delaware	–	–	2	4	5	–	–	1	17	177	–	3
Maryland	–	–	–	–	9	–	15	20	11	373	–	8
District of Columbia	–	–	–	–	–	–	1	2	–	14	–	2
Virginia	–	4	305	332	30	2	11	26	46	299	23	290
West Virginia	–	–	5	110	98	–	1	6	89	1,238	16	117
North Carolina	–	1	–	6	25	1	18	19	NN	NN	18	112
South Carolina *	–	1	4	29	159	–	7	9	28	204	38	58
Georgia	–	–	2	13	118	–	16	1	–	10	–	6
Florida	–	1	6	146	732	4	18	27	63	1,143	81	493
EAST SOUTH CENTRAL	–	1	71	379	807	1	48	42	172	2,033	82	684
Kentucky	–	–	69	270	442	–	22	11	74	687	33	317
Tennessee	–	–	2	83	137	1	18	17	70	696	19	239
Alabama	–	1	–	–	99	–	4	8	4	235	6	45
Mississippi	–	–	–	26	129	–	4	6	24	415	24	83
WEST SOUTH CENTRAL	–	7	25	398	794	7	81	67	111	2,023	63	913
Arkansas *	–	–	6	23	6	–	8	7	16	132	3	89
Louisiana	–	1	8	49	35	4	16	19	8	45	8	67
Oklahoma	–	1	1	17	5	–	7	4	18	185	3	99
Texas	–	5	10	309	748	3	50	37	69	1,661	49	658
MOUNTAIN	–	6	58	331	916	–	11	9	108	1,555	264	1,539
Montana	–	1	7	12	12	–	2	1	16	135	117	340
Idaho	–	–	44	149	3	–	1	2	2	99	–	11
Wyoming	–	–	–	10	–	–	–	1	14	323	–	5
Colorado	–	–	–	68	318	–	2	1	14	171	141	988
New Mexico	–	1	7	82	64	–	1	1	62	628	5	120
Arizona	–	4	–	9	392	–	2	1	–	140	–	14
Utah	–	–	–	1	127	–	1	1	–	52	1	59
Nevada	–	–	–	–	–	–	2	1	–	7	–	2
PACIFIC	1	19	72	919	2,290	6	89	97	344	4,887	189	1,965
Washington	–	–	26	358	465	1	7	11	38	603	39	322
Oregon	–	1	21	239	22	2	7	5	56	937	24	236
California	1	15	24	315	1,734	3	72	78	198	2,861	126	1,396
Alaska *	–	2	–	–	5	–	3	–	38	380	–	1
Hawaii	–	1	1	7	64	–	–	3	14	106	–	10
Guam	–	–	–	3	2	–	–	6	–	1	–	2
Puerto Rico	–	–	98	770	218	1	4	1	15	280	2	16
Virgin Islands	–	–	1	1	1	–	–	2	–	7	–	1

*Delayed reports: Measles: Me. 3, N.H. 8, Iowa 2, S.C. delete 1
Meningococcal infections: Alaska 1
Mumps: Me. 4, N.J. 3, Iowa 24, Ark. 2
Rubella: Me. 2, N.H. 2, Iowa 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDING APRIL 14, 1973 AND APRIL 15, 1972 (15th 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	15	614	8,866	19	20	281	1	11	14,452	515	95	968
NEW ENGLAND	–	18	295	–	–	3	–	1	492	20	6	62
Maine *	–	–	24	–	–	–	–	–	24	–	3	40
New Hampshire *	–	4	18	–	–	–	–	–	14	–	3	20
Vermont	–	2	8	–	–	–	–	–	7	–	–	1
Massachusetts	–	8	159	–	–	3	–	1	272	12	–	1
Rhode Island	–	2	23	–	–	–	–	–	48	–	–	–
Connecticut	–	2	63	–	–	–	–	–	127	8	–	–
MIDDLE ATLANTIC	4	112	1,864	–	1	20	–	1	1,768	96	1	5
Upstate New York	–	25	352	–	–	3	–	–	338	2	1	2
New York City	2	21	683	–	1	7	–	–	742	58	–	–
New Jersey	2	25	348	–	–	6	–	–	298	20	–	–
Pennsylvania	–	41	481	–	–	4	–	1	390	16	–	3
EAST NORTH CENTRAL	2	119	1,371	–	–	11	–	–	1,869	24	17	102
Ohio *	1	33	457	–	–	5	–	–	745	8	4	15
Indiana	–	14	192	–	–	–	–	–	73	5	4	30
Illinois	–	21	377	–	–	1	–	–	300	1	4	27
Michigan	–	51	288	–	–	3	–	–	532	10	–	1
Wisconsin *	1	–	57	–	–	2	–	–	219	–	5	29
WEST NORTH CENTRAL	3	28	331	2	–	7	–	1	784	3	26	245
Minnesota	–	6	41	–	–	2	–	–	160	2	7	83
Iowa *	–	3	37	–	–	–	–	–	105	–	10	70
Missouri	3	12	158	2	–	3	–	1	210	1	2	25
North Dakota	–	1	9	–	–	–	–	–	15	–	3	46
South Dakota	–	2	21	–	–	1	–	–	44	–	–	3
Nebraska	–	2	25	–	–	1	–	–	64	–	1	1
Kansas	–	2	40	–	–	–	–	–	186	–	3	17
SOUTH ATLANTIC	3	106	1,707	5	16	203	1	5	3,538	193	3	86
Delaware	–	3	17	–	–	–	–	1	35	3	–	–
Maryland	–	5	171	–	–	1	–	–	271	19	–	4
District of Columbia	–	6	92	–	–	–	–	–	318	13	–	–
Virginia	–	11	227	2	–	–	–	–	394	65	–	34
West Virginia	–	5	93	–	–	–	–	–	44	–	–	9
North Carolina	–	15	288	1	–	2	–	2	264	12	–	–
South Carolina	–	10	176	–	–	1	–	–	352	14	–	–
Georgia	–	24	290	2	–	1	1	2	773	18	3	27
Florida	3	27	353	–	16	198	–	–	1,087	49	–	12
EAST SOUTH CENTRAL	1	73	780	5	–	2	–	3	1,155	25	18	231
Kentucky	–	15	198	1	–	1	–	–	86	4	8	119
Tennessee	–	26	228	3	–	–	–	1	484	14	6	82
Alabama	1	18	214	–	–	1	–	2	290	4	4	30
Mississippi	–	14	140	1	–	–	–	–	295	3	–	–
WEST SOUTH CENTRAL	1	53	887	7	1	4	–	–	2,214	55	20	161
Arkansas	–	7	96	2	–	–	–	–	252	1	8	43
Louisiana *	1	4	173	–	–	–	–	–	420	17	1	12
Oklahoma	–	7	75	4	–	1	–	–	306	1	4	45
Texas	–	35	543	1	1	3	–	–	1,236	36	7	61
MOUNTAIN	–	21	281	–	–	2	–	–	372	5	1	4
Montana	–	2	7	–	–	–	–	–	47	–	–	–
Idaho	–	–	10	–	–	–	–	–	51	–	–	–
Wyoming	–	1	10	–	–	–	–	–	9	2	–	–
Colorado	–	13	54	–	–	–	–	–	218	3	–	–
New Mexico	–	5	71	–	–	1	–	–	25	–	–	–
Arizona	–	–	105	–	–	1	–	–	–	–	1	4
Utah	–	–	10	–	–	–	–	–	22	–	–	–
Nevada	–	–	14	–	–	–	–	–	–	–	–	–
PACIFIC	1	84	1,350	–	2	29	–	–	2,260	94	3	72
Washington	–	4	117	–	–	–	–	–	169	3	–	–
Oregon	–	4	65	–	–	2	–	–	257	–	–	–
California	1	76	1,057	–	2	27	–	–	1,734	85	2	69
Alaska	–	–	36	–	–	–	–	–	53	1	1	3
Hawaii	–	–	75	–	–	–	–	–	47	5	–	–
Guam *	–	–	5	–	–	–	–	–	–	–	–	–
Puerto Rico	3	8	151	–	–	1	–	–	120	29	1	13
Virgin Islands	–	–	–	–	–	–	–	–	4	–	–	–

*Delayed reports: TB: Me. 5, N.H. 2, Ohio delete 1, Iowa 1
Gonorrhea: N.H. 3, Iowa 56, La. delete 18, Guam 7
Syphilis: Iowa 2
Rabies: Wis. 4

Week No. 15

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDING APRIL 14, 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	715	445	29	36	SOUTH ATLANTIC	1,122	607	45	45
Boston, Mass.	211	125	13	6	Atlanta, Ga.	98	53	4	5
Bridgeport, Conn.	45	30	1	7	Baltimore, Md.	241	133	15	3
Cambridge, Mass.	24	20	–	8	Charlotte, N. C.	55	25	2	–
Fall River, Mass.	34	15	1	–	Jacksonville, Fla.	86	56	2	–
Hartford, Conn.	66	30	3	1	Miami, Fla.	76	43	3	5
Lowell, Mass.	21	11	–	–	Norfolk, Va.	59	26	4	1
Lynn, Mass.	21	14	–	–	Richmond, Va.	89	52	–	8
New Bedford, Mass.	23	22	–	2	Savannah, Ga.	50	19	–	3
New Haven, Conn.	47	29	2	–	St. Petersburg, Fla.	60	47	–	4
Providence, R. I.	65	43	3	8	Tampa, Fla.	78	43	5	8
Somerville, Mass.	9	6	–	1	Washington, D. C.	177	76	8	7
Springfield, Mass.	60	38	5	3	Wilmington, Del.	53	34	2	1
Waterbury, Conn.	27	19	–	–					
Worcester, Mass.	62	43	1	–	EAST SOUTH CENTRAL	687	384	30	39
					Birmingham, Ala.	103	48	5	2
MIDDLE ATLANTIC	3,253	1,944	101	119	Chattanooga, Tenn.	56	37	–	5
Albany, N. Y.	57	36	2	2	Knoxville, Tenn.	53	36	1	4
Allentown, Pa.	27	22	1	3	Louisville, Ky.	92	54	6	4
Buffalo, N. Y.	142	87	4	11	Memphis, Tenn.	166	89	6	7
Camden, N. J.	36	26	1	1	Mobile, Ala.	52	36	1	1
Elizabeth, N. J.	30	19	–	2	Montgomery, Ala.	43	24	1	5
Erie, Pa.	35	23	2	4	Nashville, Tenn.	122	60	10	11
Jersey City, N. J.	64	41	1	3					
Newark, N. J.	66	34	8	3	WEST SOUTH CENTRAL	1,352	726	59	50
New York City, N. Y. †	1,556	931	41	51	Austin, Tex.	34	17	3	3
Paterson, N. J.	43	31	3	3	Baton Rouge, La.	76	41	4	4
Philadelphia, Pa.	608	333	18	8	Corpus Christi, Tex.	36	25	–	–
Pittsburgh, Pa.	190	99	6	8	Dallas, Tex.	180	79	9	3
Reading, Pa.	47	34	1	3	El Paso, Tex.	66	36	7	7
Rochester, N. Y.	116	75	5	9	Fort Worth, Tex.	80	42	4	4
Schenectady, N. Y.	26	15	–	–	Houston, Tex.	268	131	11	6
Scranton, Pa.	38	32	–	–	Little Rock, Ark.	71	44	6	2
Syracuse, N. Y.	78	52	3	1	New Orleans, La.	179	104	2	6
Trenton, N. J.	30	18	1	2	Oklahoma City, Okla. *	94	54	4	2
Utica, N. Y.	25	17	–	2	San Antonio, Tex.	128	67	9	4
Yonkers, N. Y.	39	19	4	3	Shreveport, La.	74	48	–	2
					Tulsa, Okla.	66	38	–	7
EAST NORTH CENTRAL	2,477	1,411	103	72					
Akron, Ohio	76	48	4	–	MOUNTAIN	510	308	24	22
Canton, Ohio	36	19	1	1	Albuquerque, N. Mex.	43	30	3	7
Chicago, Ill.	641	314	28	19	Colorado Springs, Colo.	33	19	1	3
Cincinnati, Ohio	128	89	3	4	Denver, Colo.	138	77	8	5
Cleveland, Ohio	194	109	6	–	Las Vegas, Nev.	25	11	–	2
Columbus, Ohio	133	85	10	–	Ogden, Utah	15	11	–	1
Dayton, Ohio	111	67	3	6	Phoenix, Ariz.	107	66	8	–
Detroit, Mich.	336	186	11	8	Pueblo, Colo.	20	15	–	3
Evansville, Ind.	38	25	4	3	Salt Lake City, Utah	62	39	2	1
Fort Wayne, Ind.	48	32	3	4	Tucson, Ariz.	67	40	2	–
Gary, Ind.	37	16	4	4					
Grand Rapids, Mich.	58	35	2	5	PACIFIC	1,690	1,059	58	43
Indianapolis, Ind.	163	80	10	3	Berkeley, Calif.	21	15	–	–
Madison, Wis.	32	17	–	3	Fresno, Calif.	67	33	4	1
Milwaukee, Wis.	118	82	–	3	Glendale, Calif.	31	22	–	2
Peoria, Ill.	54	26	5	–	Honolulu, Hawaii	68	34	5	1
Rockford, Ill.	45	28	1	4	Long Beach, Calif.	107	73	1	3
South Bend, Ind.	47	36	1	1	Los Angeles, Calif.	533	334	14	12
Toledo, Ohio	124	75	7	2	Oakland, Calif.	70	48	1	1
Youngstown, Ohio	58	42	–	2	Pasadena, Calif.	34	25	–	1
					Portland, Oreg.	140	86	4	–
WEST NORTH CENTRAL	796	520	30	36	Sacramento, Calif.	57	32	6	–
Des Moines, Iowa	32	18	1	2	San Diego, Calif.	98	53	4	3
Duluth, Minn.	29	23	–	9	San Francisco, Calif.	179	111	3	5
Kansas City, Kans.	39	19	1	2	San Jose, Calif.	38	28	1	–
Kansas City, Mo.	149	95	6	2	Seattle, Wash.	147	93	13	4
Lincoln, Nebr.	29	17	2	1	Spokane, Wash.	60	46	2	6
Minneapolis, Minn.	118	76	9	2	Tacoma, Wash.	40	26	–	4
Omaha, Nebr.	73	51	4	1					
St. Louis, Mo.	206	137	3	10	Total	12,602	7,404	479	462
St. Paul, Minn.	59	43	2	2	Expected Number	12,888	7,452	533	491
Wichita, Kans.	62	41	2	5	Cumulative Total (includes reported corrections for previous weeks)	207,548	123,918	7,539	10,422

†Delayed report for week ending April 7, 1973

*Estimate based on average percent of divisional total

VEE – Continued

Surveillance activities by a number of cooperating federal, state, and local agencies to monitor possible VEE activity in mosquitoes, equines, and other species will continue in the next mosquito season.

(Reported by the Office of Veterinary Public Health Services, Epidemiology Program, CDC.)

A copy of the original report from which these data were derived is available on request from
Center for Disease Control
Attn: Office of Veterinary Public Health Services
Epidemiology Program
Atlanta, Georgia 30333

Figure 2
VEE MOVEMENTS AND SEROLOGIC SURVEY – 1972

EPIDEMIOLOGIC NOTES AND REPORTS

DIPHTHERIA – Rhode Island

In January 1973, 2 persons with diphtheria and 1 carrier from the same family were discovered in Providence, Rhode Island. The investigation is summarized below.

Case 1: On December 31, 1972, an 11-year-old boy developed a sore throat and difficulty in swallowing. Two days later, he complained of difficulty in breathing and was admitted to the Roger Williams General Hospital. Physical examination disclosed a temperature of 38.6°C, bilateral tonsillar hypertrophy and a yellowish-gray exudate, foul smelling odor to his breath, and tender, marked cervical lymphadenopathy. Pharyngeal cultures were obtained and intravenous penicillin was begun. Three days later, he was afebrile and improved, but the tonsillar exudate had formed an adherent membrane, which caused bleeding when removed. The initial pharyngeal culture grew no pathogens, but a repeat culture obtained after 3 days of penicillin therapy and planted on Loeffler's and tellurite media grew a toxin-producing (Elek plate) *Corynebacterium diphtheriae,* mitis strain. Club-shaped rods with granules were visualized in a methylene blue stain of the membrane.

Subsequent hospital course was uneventful, and several electrocardiograms were normal. After a 10-day course of penicillin, 2 pharyngeal cultures were negative for *C. diphtheriae.* The patient was discharged on January 14.

According to the parents, the child had received a basic series of immunizations in infancy and a subsequent booster, but confirmation from a physician could not be obtained. A Schick test was negative. A booster dT was given subsequently.

Case 2: On January 7, 1973, the 1st patient's 6-year-old brother developed a low grade fever, malaise, cough, and sore throat. Two days later, he was hospitalized. On admission, he had a temperature of 38.0°C, bilateral enlarged tonsils with punctate, white exudate, and mild cervical lymphadenopathy. A throat culture that had been taken just prior to the onset of symptoms was found positive for *C. diphtheriae,* mitis strain, toxin-positive. After negative intradermal and conjunctival tests for horse serum hypersensitivity, 20,000 units of antitoxin was administered intravenously over 6 hours. Penicillin was given for 8 days. The patient's hospital course was uneventful. After the course of penicillin was completed, 2 pharyngeal cultures were negative for *C. diphtheriae,* and the patient was discharged January 20.

This patient's history of immunizations, given by the mother, was similar to that of the older sibling, but a Schick test was positive (17 mm induration after 5 days). A basic series of dT immunization was started.

Epidemiologic surveillance of contacts of these 2 patients revealed 1 diphtheria carrier, the 9-year-old sister of the 2 patients, who was quarantined at home for 14 days until her throat culture became negative for *C. diphtheriae.* A

DIPHTHERIA – Continued

throat culture 7 days after an injection of benzathine penicillin was positive, but after an additional 7-day course of oral erythromycin, a repeat throat culture was negative. Negative pharyngeal cultures were obtained from the other 3 family members, 4 hospital patients in contact with Case 1, and 61 hospital personnel, many of whom requested to be cultured despite minimal contact with the patients. Sixty-two children in the same school classes of the 3 affected family members also were culture negative. Booster dT immunizations were recommended for these children and hospital personnel* in close contact with the 2 patients. An additional 46 close contacts of the children were also culture negative for *C. diphtheriae.*

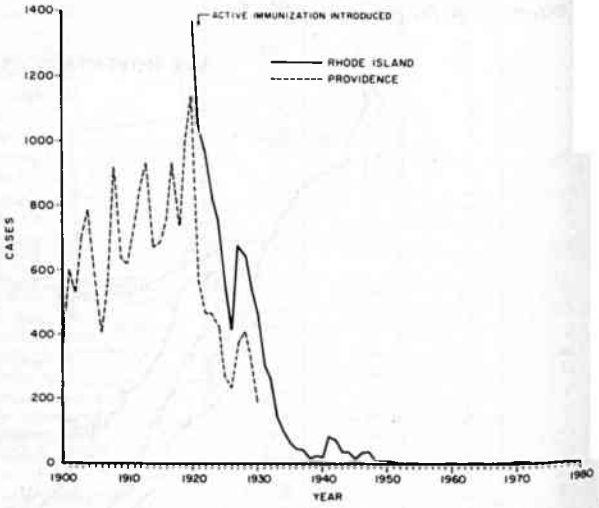
As initially reflected by the city of Providence and later illustrated by the state as a whole, diphtheria began to decrease in Rhode Island coincident with the introduction in 1921 of active immunization with diphtheria toxin-antitoxin (Figure 3). The cases presented here represent the 1st *C. diphtheriae* isolations in Rhode Island since November 1971. *(Reported by Georges Peter, M.D., and Stephen H. Zinner, M.D., Division of Infectious Diseases, and T. Shikashio, Head, Microbiology Section, Roger Williams General Hospital; Joseph E. Cannon, M.D., Director, Rhode Island Department of Health; and an EIS Officer.)*

Editorial Note

In the investigation of contacts of sporadic cases of diphtheria, family contacts frequently are found to be carriers of *C. diphtheriae,* but carriage among more distant contacts (school classmates, playmates, hospital contacts) is much less common.

*A survey of hospital employees involved in patient care indicated that many had not received diphtheria boosters for more than 10 years. Review and updating of the immunization status of hospital employees has been recommended.

Figure 3
DIPHTHERIA CASES, BY YEAR
PROVIDENCE – 1900-1930
RHODE ISLAND – 1920-1972



Erratum, Vol. 22, No. 12, p. 101

In the article "*Shigella dysenteriae* 1 – Colorado," total colectomy was performed because of extensive necrotizing enterocolitis, rather than intestinal perforation as stated. Also, *S. dysenteriae* 1 was recovered from culture of blood, not from rectal swab.

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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.

Address all correspondence to: Center for Disease Control
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