



U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE PUBLIC HEALTH SERVICE
DATE OF RELEASE: NOVEMBER 16, 1973 - ATLANTA, GEORGIA 30333

SURVEILLANCE SUMMARY

CONTENTS

CONTINUING DENGUE-2 TRANSMISSION - Puerto Rico

Surveillance Summary

Surveillance at health centers for dengue-like illness has revealed continuing dengue transmission in Puerto Rico. Most of the confirmed dengue during recent months has been in residents of the town of Villalba (1970 population 4,134; elevation 520 feet) in southcentral Puerto Rico. This area was spared during the 1968-69 epidemic; no cases of dengue were reported from the entire municipality of Villalba (1970 population 18,733).

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Patients with dengue-like illness were seen at the Villalba Health Center in November 1972; 8 cases were confirmed serologically, 1 of these also by virus isolation, between November 8, 1972, and February 10, 1973. Mosquito control activities by the Puerto Rico Health Department were begun in selected areas of Villalba in late January 1973. Only 1 case

of dengue-like illness was recognized in March and April, but beginning in May many residents of the town of Villalba and surrounding *barrios* visited the health center with clinical manifestations suggesting dengue fever. The number of outpatients with clinically diagnosed dengue is shown in Figure 1. Serologic tests on paired serum specimens from patients with onset of illness in May, June, July, and August have confirmed the clinical impression of dengue. Test results are consistent with recent infection by dengue-2 virus.

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

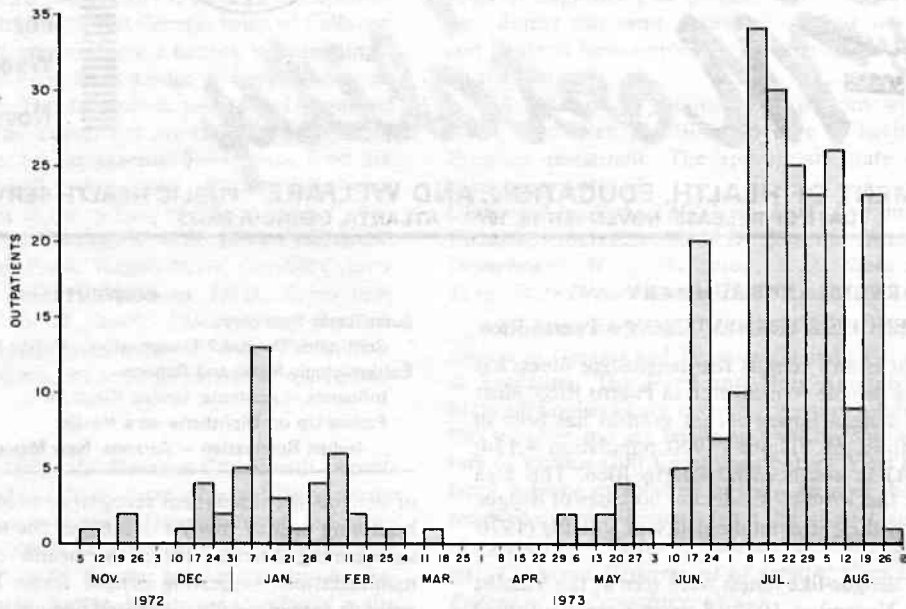
DISEASE	45th WEEK ENDING		MEDIAN 1968-1972	CUMULATIVE, FIRST 45 WEEKS		
	November 10, 1973	November 11, 1972		1973	1972	MEDIAN 1968-1972
Aseptic meningitis	98	125	116	4,175	3,706	3,890
Brucellosis	2	4	4	163	167	187
Chickenpox	928	1,651	---	149,553	120,543	---
Diphtheria	---	3	5	156	97	158
Encephalitis, primary:						
Arthropod-borne and unspecified	40	24	33	1,350	988	1,249
Encephalitis, post-infectious	4	3	2	248	242	302
Hepatitis, serum (Hepatitis B)	143	172	163	7,003	7,818	6,328
Hepatitis, infectious (Hepatitis A)	889	1,103	1,112	44,496	47,525	47,525
Malaria	3	10	38	223	778	2,656
Measles (rubeola)	171	359	359	25,159	28,396	28,396
Meningococcal infections, total	24	23	29	1,204	1,169	2,129
Civilian	24	22	27	1,178	1,124	1,914
Military	---	1	2	26	45	209
Mumps	1,043	959	1,683	60,697	61,948	86,209
Rubella (German measles)	122	256	317	26,893	22,869	46,086
Tetanus	---	4	4	79	102	115
Tuberculosis, new active	610	614	---	27,136	29,492	---
Tularemia	2	2	1	144	118	133
Typhoid fever	2	14	14	582	324	324
Typhus, tick-borne (Rky. Mt. spotted fever)	4	2	2	618	510	394
Venereal Diseases:						
Gonorrhea	15,446	15,744	---	714,415	652,309	---
Syphilis, primary and secondary	412	565	---	22,152	21,922	---
Rabies in animals	47	57	50	2,998	3,603	2,994

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	1	Poliomyelitis, total: Va. 1	7
Botulism:	17	Paralytic: Va. 1	5
Congenital rubella syndrome:	30	Psittacosis:	22
Leprosy: Calif. 4, Hawaii 3	112	Rabies in man:	1
Leptospirosis:	30	Trichinosis: P.R. 1	73
Plague:	2	Typhus, murine:	29

DENGUE-2 - Continued

Figure 1
OUTPATIENTS WITH ACUTE DENGUE-LIKE ILLNESS VISITING THE HEALTH CENTER,
VILLALBA, PUERTO RICO, NOV. 1972-AUG. 1973



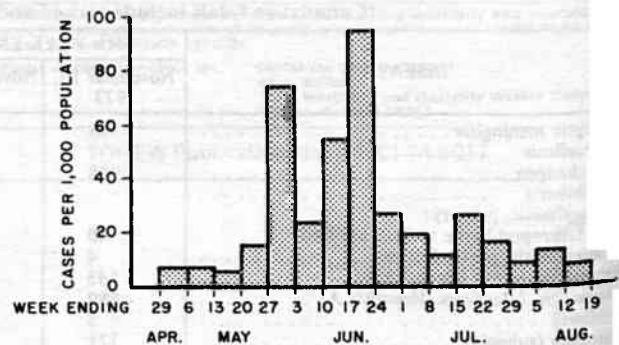
Investigations were conducted in Villalba in late June 1973 and again in mid-August. Survey teams visited households to collect information on recent febrile illnesses, search for *Aedes aegypti* larvae, and collect adult *A. aegypti* mosquitoes. Serum specimens were obtained from persons with febrile illness of recent onset for attempts at virus isolation; mosquitoes were sorted live and stored in liquid nitrogen for subsequent virus isolation attempts.

The survey teams visited urban Villalba (36 houses) and 2 outlying *barrios*, Camarones and Chino (31 and 46 houses, respectively), in late June. The same houses in Camarones and Chino were visited again in August. For urban Villalba, the attack rate for febrile illness in May and June was 21%. Between May 1 and August 20, febrile illness attack rates were 55% for Camarones and 34% for Chino. Overall, of 647 persons surveyed in 113 households in and near Villalba, 249 (39%) had experienced a febrile illness between May 1 and August 20, 1973. Figure 2 indicates peak activity in mid-June in the areas surveyed, somewhat earlier than the peak number of clinical cases seen at the Villalba Health Center.

Of 31 houses in Camarones inspected for *A. aegypti* larvae, 16 were positive, for a premises index of 52%. In the June surveys, 441 adult female *A. aegypti* were collected (resting collections) in a total of 83 man-hours, an average of 5 mosquitoes per man-hour. The mosquito counts were 2.3 per man-hour for urban Villalba, 3.2 for Camarones, and 7.0 for Chino. Repeat visits in August to Camarones, after mosquito control activities had been completed, yielded no female *A. aegypti* in 8 hours of collection effort. In Chino, where control activities were still in progress, the August visit yielded 1.5 female *A. aegypti* per man-hour in 9 hours of collection effort.

Dengue-like illness has recently been detected in Collores, a *barrio* 4 to 5 miles southwest of Villalba. On August 27, a

Figure 2
CASES OF FEBRILE ILLNESS, PER 1,000 POPULATION,
BY DATE OF ONSET, VILLALBA, PUERTO RICO,
MAY-AUG. 1973



survey of 14% of the population of 2,407 revealed that 72 persons (21%) had experienced a febrile illness since June 24. Figure 3 shows a progressive increase in febrile illness attack rates from late June to late August. Seroconversions to dengue-2 in 3 of 4 paired serum specimens tested confirmed the clinical impression of dengue. Mosquito collection efforts yielded 4.7 adult female *A. aegypti* per man-hour. Further virologic and serologic studies are in progress.

No hemorrhagic manifestations of dengue infection were observed during these studies. Several strains of virus have been isolated in suckling mice from acute serum specimens, but none have been identified.

(Continued on page 379)

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDING NOVEMBER 10, 1973 AND NOVEMBER 11, 1972 (45th WEEK)

AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS		
						Primary including unspec. cases		Post Infectious	Serum (Hepatitis B)	Infectious (Hepatitis A)	
						1973	1972	1973	1973	1973	1972
UNITED STATES	98	2	928	-	156	40	24	4	143	889	1,103
NEW ENGLAND	7	-	184	-	3	-	1	-	2	53	91
Maine *	-	-	-	-	-	-	-	-	-	-	17
New Hampshire	-	-	18	-	-	-	-	-	-	-	8
Vermont	-	-	11	-	-	-	-	-	-	4	2
Massachusetts	1	-	66	-	1	-	-	-	-	21	34
Rhode Island	5	-	38	-	2	-	-	-	2	20	7
Connecticut	1	-	51	-	-	-	1	-	-	8	23
MIDDLE ATLANTIC	12	-	23	-	-	4	5	-	17	93	155
Upstate New York	2	-	-	-	-	1	3	-	4	31	49
New York City *	1	-	23	-	-	-	-	-	5	9	33
New Jersey *	5	-	NN	-	-	-	1	-	4	23	39
Pennsylvania *	4	-	-	-	-	3	1	-	4	30	34
EAST NORTH CENTRAL	18	-	348	-	-	15	11	1	16	132	172
Ohio	2	-	19	-	-	10	4	-	5	40	56
Indiana *	-	-	28	-	-	3	-	-	-	7	6
Illinois	2	-	-	-	-	1	1	1	1	23	46
Michigan	11	-	142	-	-	1	6	-	9	54	58
Wisconsin	3	-	159	-	-	-	-	-	1	8	6
WEST NORTH CENTRAL	7	-	90	-	7	15	1	2	15	46	26
Minnesota	2	-	3	-	-	1	-	2	-	3	2
Iowa	-	-	60	-	-	1	-	-	-	-	2
Missouri	5	-	2	-	-	10	1	-	-	12	16
North Dakota	-	-	25	-	-	-	-	-	-	1	-
South Dakota	-	-	-	-	7	-	-	-	-	22	2
Nebraska	-	-	-	-	-	-	-	-	-	-	-
Kansas	-	-	-	-	-	3	-	-	15	8	4
SOUTH ATLANTIC	14	2	88	-	1	1	1	-	8	91	149
Delaware	-	-	2	-	-	-	-	-	-	1	3
Maryland	5	-	1	-	-	-	1	-	2	20	18
District of Columbia	1	-	3	-	-	-	-	-	-	-	3
Virginia	5	-	1	-	-	-	-	-	-	12	25
West Virginia	-	-	79	-	-	-	-	-	-	7	23
North Carolina	3	-	NN	-	-	-	-	-	5	16	20
South Carolina	-	-	2	-	-	-	-	-	1	9	2
Georgia	-	2	-	-	-	1	-	-	-	26	25
Florida	---	---	---	---	1	---	---	---	---	---	30
EAST SOUTH CENTRAL	20	-	10	-	1	-	2	1	6	86	64
Kentucky	-	-	8	-	-	-	-	-	-	29	25
Tennessee	18	-	NN	-	-	-	1	1	3	43	28
Alabama	1	-	2	-	1	-	-	-	3	8	5
Mississippi	1	-	-	-	-	-	1	-	-	6	6
WEST SOUTH CENTRAL	8	-	29	-	16	1	1	-	10	195	125
Arkansas *	-	-	3	-	-	-	1	-	-	1	5
Louisiana	2	-	NN	-	1	1	-	-	3	16	-
Oklahoma	-	-	9	-	-	-	-	-	1	17	24
Texas	6	-	17	-	15	-	-	-	6	161	96
MOUNTAIN	-	-	33	-	44	1	1	-	2	24	102
Montana	-	-	16	-	-	-	-	-	-	-	6
Idaho	-	-	-	-	-	1	-	-	-	2	23
Wyoming	-	-	3	-	-	-	-	-	-	2	2
Colorado	-	-	8	-	-	-	-	-	2	7	17
New Mexico	-	-	4	-	25	-	-	-	-	9	22
Arizona *	-	-	-	-	19	-	-	-	-	-	18
Utah	-	-	2	-	-	-	-	1	-	4	7
Nevada	-	-	-	-	-	-	-	-	-	-	7
PACIFIC	12	-	123	-	84	3	1	-	67	169	219
Washington *	-	-	115	-	75	-	-	-	5	27	25
Oregon	-	-	-	-	3	-	-	-	6	19	32
California	12	-	-	-	4	3	1	-	56	117	145
Alaska	-	-	1	-	2	-	-	-	-	6	1
Hawaii	-	-	7	-	-	-	-	-	-	-	16
Guam	-	-	-	-	-	-	-	-	-	-	-
Puerto Rico	-	-	7	-	-	-	-	-	-	18	33
Virgin Islands	-	-	-	-	-	-	-	-	-	-	-

* Delayed Reports: Aseptic meningitis: N.Y.C. 7, N.J. 8, Pa. 5
 Chickenpox: Me. 3, N.Y.C. 14, Wash. 153
 Encephalitis, primary: Pa. 4, Wash. 1

Hepatitis B: N.Y.C. 12, N.J. 14, Pa. 8, Wash. 4
 Hepatitis A: Me. 8, N.Y.C. 19, N.J. 38, Pa. 31, Ind. delete 3,
 Ark. 6, Ariz. 10, Wash. 27

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDING NOVEMBER 10, 1973 AND NOVEMBER 11, 1972 (45th 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	223	171	25,159	28,396	24	1,204	1,169	1,043	60,697	122	26,893
NEW ENGLAND	-	17	7	7,502	3,469	2	50	51	188	3,521	10	3,676
Maine *	-	-	-	68	249	-	1	4	5	382	-	70
New Hampshire *	-	-	2	907	397	-	7	3	1	199	-	379
Vermont	-	2	-	120	128	-	3	-	1	274	-	47
Massachusetts	-	7	3	3,975	866	-	13	21	44	1,004	8	2,064
Rhode Island	-	1	-	620	524	-	3	12	53	547	1	221
Connecticut	-	7	2	1,812	1,305	2	23	11	84	1,115	1	895
MIDDLE ATLANTIC	-	34	36	2,591	1,079	4	166	141	66	7,596	3	4,233
Upstate New York	-	17	5	816	130	1	59	32	NN	NN	1	439
New York City *	-	2	3	928	388	3	34	43	14	4,649	2	480
New Jersey *	-	5	23	473	498	-	40	27	12	1,550	-	3,015
Pennsylvania *	-	10	5	374	63	-	33	39	40	1,397	-	299
EAST NORTH CENTRAL	-	30	39	8,768	11,535	4	162	178	263	15,438	27	6,232
Ohio	-	5	1	291	271	1	69	71	19	2,781	2	699
Indiana	-	3	6	678	1,293	-	4	12	66	1,475	2	971
Illinois	-	16	3	2,104	4,248	-	26	39	26	2,559	5	1,028
Michigan	-	6	14	4,439	2,141	3	47	48	109	4,278	12	1,900
Wisconsin	-	-	15	1,256	3,582	-	16	8	43	4,345	6	1,634
WEST NORTH CENTRAL	-	8	-	451	1,008	2	93	82	70	5,116	-	1,234
Minnesota	-	2	-	21	22	2	12	24	-	95	-	221
Iowa	-	1	-	279	698	-	21	6	55	3,162	-	204
Missouri	-	1	-	53	164	-	34	25	12	738	-	273
North Dakota	-	1	-	65	57	-	3	-	2	71	-	277
South Dakota	-	-	-	-	7	-	4	2	1	20	-	23
Nebraska	-	1	-	6	23	-	10	9	-	161	-	141
Kansas	-	2	-	27	37	-	9	16	-	869	-	95
SOUTH ATLANTIC	2	35	2	1,262	2,253	3	201	257	70	7,018	6	2,216
Delaware	-	-	-	9	53	-	1	1	1	275	-	14
Maryland	1	6	-	13	15	-	27	39	12	655	1	11
District of Columbia	1	2	-	8	2	-	4	11	2	141	-	3
Virginia	-	8	-	422	69	2	40	57	7	726	2	629
West Virginia *	-	-	1	219	298	-	6	8	48	2,436	3	336
North Carolina	-	7	-	4	37	-	42	30	NN	NN	-	202
South Carolina	-	1	1	66	216	-	13	20	-	359	-	86
Georgia	-	3	-	152	183	1	23	19	-	32	-	12
Florida	---	8	---	369	1,380	---	45	72	---	2,394	---	923
EAST SOUTH CENTRAL	-	14	12	629	1,071	3	111	91	79	5,038	31	1,410
Kentucky	-	9	11	393	538	2	40	28	30	1,508	10	412
Tennessee	-	-	-	165	194	-	42	29	43	2,356	13	578
Alabama	-	5	1	13	154	1	16	20	5	704	4	201
Mississippi	-	-	-	58	185	-	13	14	1	470	4	219
WEST SOUTH CENTRAL	-	12	7	719	1,609	5	189	140	124	4,252	4	1,492
Arkansas	-	-	-	70	13	-	13	12	1	392	-	112
Louisiana	-	2	-	87	99	2	49	42	-	93	-	99
Oklahoma	-	2	4	60	10	-	32	9	6	459	-	179
Texas	-	8	3	502	1,487	3	95	77	117	3,308	4	1,102
MOUNTAIN	-	11	51	895	1,928	-	34	30	23	2,590	4	2,420
Montana	-	1	48	171	18	-	7	5	2	254	4	511
Idaho	-	1	-	256	151	-	4	8	-	114	-	42
Wyoming	-	-	-	81	51	-	-	1	2	429	-	7
Colorado	-	2	-	107	534	-	11	5	9	517	-	1,553
New Mexico	-	2	2	128	127	-	3	3	7	990	-	205
Arizona*	-	4	-	22	888	-	5	1	-	140	-	19
Utah	-	1	1	129	158	-	2	6	3	137	-	79
Nevada	-	-	-	1	1	-	2	1	-	9	-	4
PACIFIC	1	62	17	2,342	4,444	1	198	199	160	10,128	37	3,980
Washington *	-	4	8	1,041	983	-	20	17	43	1,653	8	718
Oregon	-	4	-	461	141	-	16	14	21	1,889	6	803
California	1	51	9	755	3,209	-	154	157	74	5,479	23	2,424
Alaska	-	2	-	65	13	1	8	8	22	831	-	9
Hawaii	-	1	-	20	98	-	-	3	-	276	-	26
Guam	-	-	-	52	16	-	-	13	-	28	-	14
Puerto Rico	-	-	22	1,941	836	-	8	4	35	835	1	37
Virgin Islands	-	-	-	7	3	-	-	2	-	25	-	2

* Delayed Reports: Malaria: Pa. 3, Wash. 1
Measles: N.H. 5, N.Y.C. 3, N.J. 8, Pa. 5, Ariz. 1, Wash. 6
Meningococcal infections: N.J. 1, W.Va. 1

Mumps: Me. 1, N.Y.C. 13, N.J. 11, Pa. 35, Wash. 32
Rubella: N.Y.C. 2, N.J. 1, Pa. 1, Wash. 10

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDING NOVEMBER 10, 1973 AND NOVEMBER 11, 1972 (45th WEEK) - Continued

AREA	TETANUS	TUBERCULOSIS (New Active)		TULA- REMI A	TYPHOID FEVER		TYPHUS-FEVER TICK-BORNE (Rky. Mt. spotted fever)		VENEREAL DISEASES		RABIES IN ANIMALS	
	Cumulative 1973	1973	Cum. 1973	Cumulative 1973	1973	Cum. 1973	1973	Cum. 1973	GONOR- RHEA	SYPHILIS (Pri. & Sec.)	1973	Cum. 1973
									1973	1973		
UNITED STATES	79	610	27,136	144	2	582	4	618	15,446	412	47	2,998
NEW ENGLAND	2	15	995	-	-	17	-	3	473	10	1	114
Maine*	-	2	93	-	-	-	-	-	51	-	1	61
New Hampshire	-	1	49	-	-	-	-	-	17	-	-	37
Vermont	-	-	27	-	-	-	-	-	-	-	-	3
Massachusetts	-	10	526	-	-	14	-	2	195	6	-	6
Rhode Island	1	-	83	-	-	-	-	-	41	-	-	1
Connecticut	1	2	217	-	-	3	-	1	169	4	-	6
MIDDLE ATLANTIC	7	132	5,315	-	-	60	-	34	2,673	104	-	50
Upstate New York	1	22	933	-	-	10	-	13	306	8	-	24
New York City*	3	33	1,963	-	-	22	-	4	963	53	-	-
New Jersey*	2	26	938	-	-	18	-	5	860	21	-	-
Pennsylvania*	1	51	1,481	-	-	10	-	12	544	22	-	26
EAST NORTH CENTRAL	13	65	3,990	3	1	46	-	19	1,947	29	11	290
Ohio	3	42	1,213	-	1	19	-	14	362	3	-	32
Indiana	4	-	502	-	-	1	-	-	264	4	1	53
Illinois	3	-	1,188	1	-	10	-	5	371	4	3	72
Michigan	1	23	1,010	2	-	13	-	-	732	16	3	10
Wisconsin*	2	-	77	-	-	3	-	-	218	2	4	123
WEST NORTH CENTRAL	6	28	1,136	17	-	25	-	24	738	8	13	944
Minnesota	-	-	135	-	-	5	-	2	146	1	5	351
Iowa	1	1	112	-	-	-	-	7	58	1	3	194
Missouri	5	21	548	16	-	12	-	8	312	6	-	89
North Dakota	1	-	36	-	-	-	-	-	12	-	1	140
South Dakota	-	1	78	-	-	1	-	1	53	-	-	81
Nebraska	-	2	74	-	-	1	-	2	44	-	-	3
Kansas	-	3	153	1	-	6	-	4	113	-	4	86
SOUTH ATLANTIC	18	86	5,373	18	-	249	2	306	2,839	87	4	269
Delaware*	-	1	85	-	-	-	-	8	68	5	-	4
Maryland	-	12	593	6	-	9	-	14	403	17	-	15
District of Columbia	-	7	260	-	-	-	-	-	268	20	-	-
Virginia	3	19	733	5	-	3	-	61	165	16	3	82
West Virginia*	1	3	257	-	-	11	-	4	57	1	-	22
North Carolina	-	13	866	2	-	5	2	140	607	13	-	13
South Carolina*	2	17	430	-	-	6	-	32	505	14	-	6
Georgia	2	14	875	3	-	3	-	46	766	1	1	88
Florida	10	---	1,274	2	---	212	---	1	---	---	---	39
EAST SOUTH CENTRAL	8	74	2,463	10	1	43	1	112	1,358	31	3	378
Kentucky	1	21	548	1	-	11	-	-	88	1	2	200
Tennessee	5	24	778	7	1	15	-	52	639	12	1	135
Alabama	2	22	689	-	-	10	1	27	367	6	-	42
Mississippi	-	7	448	2	-	7	-	33	264	12	-	1
WEST SOUTH CENTRAL	14	95	2,834	90	-	26	1	104	2,323	54	12	528
Arkansas*	1	-	338	62	-	5	-	20	96	4	1	110
Louisiana	4	30	410	1	-	6	-	-	526	12	4	47
Oklahoma	4	8	244	20	-	2	-	74	205	7	1	149
Texas	5	57	1,842	7	-	13	1	10	1,496	31	6	222
MOUNTAIN	-	22	919	4	-	14	-	8	463	13	-	50
Montana	-	1	46	-	-	-	-	1	32	-	-	10
Idaho	-	2	32	-	-	1	-	2	70	-	-	-
Wyoming	-	1	25	-	-	1	-	1	15	2	-	-
Colorado	-	8	181	-	-	2	-	1	187	2	-	-
New Mexico	-	1	191	1	-	4	-	3	125	8	-	7
Arizona	-	-	345	-	-	6	-	-	-	-	-	30
Utah	-	5	43	2	-	-	-	-	21	-	-	3
Nevada	-	4	56	1	-	-	-	-	13	1	-	-
PACIFIC	11	93	4,111	2	-	102	-	8	2,632	76	3	375
Washington*	3	6	318	1	-	7	-	5	261	4	-	9
Oregon	-	7	218	-	-	2	-	2	206	1	-	8
California	8	78	3,239	1	-	88	-	1	2,048	70	3	350
Alaska*	-	-	54	-	-	4	-	-	57	1	-	8
Hawaii	-	2	282	-	-	1	-	-	60	-	-	-
Guam	-	-	36	-	-	-	-	-	-	-	-	-
Puerto Rico	9	10	437	-	2	11	-	-	70	13	3	49
Virgin Islands	-	-	2	-	-	-	-	-	4	3	-	-

* Delayed Reports: TB: N.Y.C. 34, N.J.-8, Pa. 21, Wash. 5, Alaska 10
Tularemia: Ark. 2
Typhoid: N.Y.C. 1, N.J. 3, Wis. delete 1, W.Va. 1

Gonorrhea: N.Y.C. 837, N.J. 292, Pa. 710, Wash. 214
Syphilis: Me. 1, N.Y.C. 52, N.J. 33, Pa. 13, Wash. 1
Rabies: Pa. 2, Del. 1, S.C. 1

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDING NOVEMBER 10, 1973

Week No.

45

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

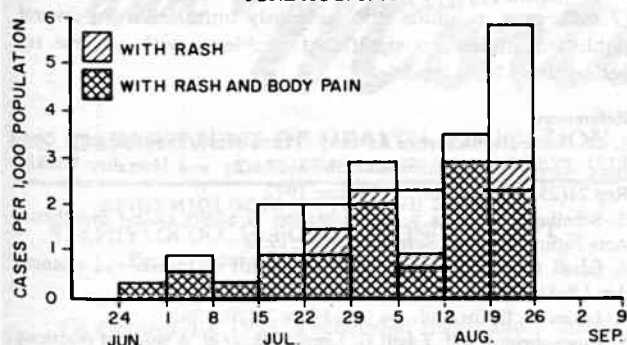
Area	All Causes			Pneumonia and Influenza All Ages	Area	All Causes			Pneumonia and Influenza All Ages
	All Ages	65 years and over	Under 1 year			All Ages	65 years and over	Under 1 year	
NEW ENGLAND	675	408	21	40	SOUTH ATLANTIC	1,245	695	51	45
Boston, Mass.	210	96	8	16	Atlanta, Ga.	104	53	9	1
Bridgeport, Conn.	34	27	—	4	Baltimore, Md.	212	117	4	3
Cambridge, Mass.	24	16	1	4	Charlotte, N. C.	66	30	3	—
Fall River, Mass.	33	23	—	—	Jacksonville, Fla.	95	54	10	1
Hartford, Conn.	42	29	—	—	Miami, Fla.	120	65	5	6
Lowell, Mass.	26	19	—	4	Norfolk, Va.	65	37	3	4
Lynn, Mass.	26	21	—	2	Richmond, Va.	87	47	4	5
New Bedford, Mass.	23	18	—	1	Savannah, Ga.	47	28	2	4
New Haven, Conn.	73	38	6	1	St. Petersburg, Fla.	93	72	2	3
Providence, R. I.	40	25	1	5	Tampa, Fla.	76	40	4	5
Somerville, Mass.	6	5	—	—	Washington, D. C.	240	135	5	12
Springfield, Mass.	45	32	3	3	Wilmington, Del.	40	17	—	1
Waterbury, Conn.	35	23	—	—	EAST SOUTH CENTRAL	731	357	41	30
Worcester, Mass.	58	36	2	—	Birmingham, Ala.	98	45	8	2
MIDDLE ATLANTIC	2,938	1,800	113	150	Chattanooga, Tenn.	48	23	2	5
Albany, N. Y.	40	24	5	1	Knoxville, Tenn.	37	26	—	1
Allentown, Pa.	28	15	1	4	Louisville, Ky.	125	63	6	7
Buffalo, N. Y.	122	82	6	5	Memphis, Tenn.	193	90	7	5
Camden, N. J.	40	21	1	1	Mobile, Ala.	55	28	3	—
Elizabeth, N. J.	32	24	—	—	Montgomery, Ala.	55	26	3	9
Erie, Pa.	40	25	2	5	Nashville, Tenn.	120	56	12	1
Jersey City, N. J.	64	48	1	—	WEST SOUTH CENTRAL	1,263	665	71	43
Newark, N. J.	52	20	2	3	Austin, Tex.	32	21	—	4
New York City, N. Y.†	1,582	946	51	53	Baton Rouge, La.	78	39	7	2
Pateron, N. J.	50	30	3	5	Corpus Christi, Tex.	37	24	—	2
Philadelphia, Pa.	293	174	15	39	Dallas, Tex.	157	91	6	1
Pittsburgh, Pa.	153	91	8	9	El Paso, Tex.	51	20	3	2
Reading, Pa.	54	36	5	1	Fort Worth, Tex.	90	57	4	4
Rochester, N. Y.	124	90	5	8	Houston, Tex.	266	123	16	1
Schenectady, N. Y.	34	23	2	1	Little Rock, Ark.	57	33	5	5
Scranton, Pa.	43	30	2	4	New Orleans, La.	164	78	15	3
Syracuse, N. Y.	71	43	2	—	Oklahoma City, Okla.*	88	50	5	2
Trenton, N. J.	44	30	—	4	San Antonio, Tex.	126	67	8	6
Utica, N. Y.	23	15	—	3	Shreveport, La.	55	28	2	6
Yonkers, N. Y.	49	33	2	4	Tulsa, Okla.	62	34	—	5
EAST NORTH CENTRAL	2,491	1,420	105	66	MOUNTAIN	559	325	38	20
Akron, Ohio	60	36	3	—	Albuquerque, N. Mex.	41	23	3	5
Canton, Ohio	36	23	2	2	Colorado Springs, Colo.	26	20	—	1
Chicago, Ill.	646	366	28	22	Denver, Colo.	145	77	20	7
Cincinnati, Ohio	172	94	6	8	Las Vegas, Nev.	34	16	1	—
Cleveland, Ohio	186	92	6	2	Ogden, Utah	25	17	—	2
Columbus, Ohio	134	84	4	3	Phoenix, Ariz.	128	79	5	2
Dayton, Ohio	105	64	7	1	Pueblo, Colo.	27	16	1	3
Detroit, Mich.	326	169	10	2	Salt Lake City, Utah	63	40	5	—
Evansville, Ind.	44	30	1	2	Tucson, Ariz.	70	37	3	—
Fort Wayne, Ind.	64	34	5	5	PACIFIC	1,616	998	65	50
Gary, Ind.	17	8	1	—	Berkeley, Calif.	18	15	—	2
Grand Rapids, Mich.	56	32	2	4	Fresno, Calif.	50	31	5	2
Indianapolis, Ind.	151	80	12	—	Glendale, Calif.	33	22	—	2
Madison, Wis.	43	21	5	3	Honolulu, Hawaii	51	22	7	2
Milwaukee, Wis.	143	85	4	1	Long Beach, Calif.	109	63	4	3
Peoria, Ill.	51	39	2	—	Los Angeles, Calif.	435	274	10	12
Rockford, Ill.	37	25	—	5	Oakland, Calif.	56	36	2	—
South Bend, Ind.	42	28	—	4	Pasadena, Calif.	33	23	1	1
Toledo, Ohio	114	70	6	—	Portland, Oreg.	139	94	3	4
Youngstown, Ohio	64	40	1	2	Sacramento, Calif.	80	43	5	1
WEST NORTH CENTRAL	906	548	33	47	San Diego, Calif.	144	77	6	3
Des Moines, Iowa	68	46	1	2	San Francisco, Calif.	176	103	5	4
Duluth, Minn.	26	17	—	2	San Jose, Calif.	64	45	3	3
Kansas City, Kans.	40	26	—	5	Seattle, Wash.	137	87	13	5
Kansas City, Mo.	145	82	7	2	Spokane, Wash.	57	41	1	2
Lincoln, Nebr.	38	28	1	3	Tacoma, Wash.	34	22	—	4
Minneapolis, Minn.	90	60	4	5	Total	12,424	7,216	538	491
Omaha, Nebr.	110	49	8	1	Expected Number	12,596	7,248	543	427
St. Louis, Mo.	253	147	9	15	Cumulative Total (includes reported corrections for previous weeks)	576,623	338,900	21,710	23,119
St. Paul, Minn.	69	53	2	1					
Wichita, Kans.	67	40	1	11					

† Delayed report for week ending November 3, 1973

* Estimate based on average percent of divisional total

DENGUE-2 — Continued

Figure 3
CASES OF FEBRILE ILLNESS, PER 1,000 POPULATION,
BY DATE OF ONSET,
BARRIO COLLORES, JUANA DIAZ, PUERTO RICO,
JUNE-AUG. 1973



The dengue activity described in this preliminary report appears to be more explosive than the 1972 outbreak in Guanica-Ensenada (MMWR, Vol. 21, No. 44, and Vol. 22, No. 7). The febrile illness attack rate in Villalba was 390 per 1,000 inhabitants over a 3-1/2 month period, whereas in Guanica-Ensenada, it was 331 per 1,000 over a 5-1/2 month period. *A. aegypti* population indices were higher in Villalba than those observed in Guanica-Ensenada.

Foci of confirmed dengue transmission have now been identified in the towns of Coamo and San German. Mosquito control activities are in progress in these towns.

(Reported by Rodolfo Caballero, M.D., Francisco Loza-Diaz, M.D., physician, Elpidia Diaz, Nursing Supervisor, Villalba Health Center; the Puerto Rico Health Department; the San Juan Tropical Disease Laboratories, Vectorborne Disease Branch, Bureau of Laboratories, CDC.)

EPIDEMIOLOGIC NOTES AND REPORTS

INFLUENZA — Australia, United Kingdom

Australia

A widespread epidemic of influenza A has been reported from Western Australia. The etiologic agent for this outbreak is similar to A/England/42/72.

United Kingdom

In late September and early October, an influenza outbreak associated with type A influenzavirus occurred in a boys' school in southern England. More than 100 boys were ill; 1 died with pneumonia. The etiologic agent for this outbreak appears to have been A/England/42/72.

In October, another influenza outbreak associated with type B virus occurred in a boys' school in northern England. Strains of influenza antigenically similar to the "intermediate strain" have been isolated.

In mid-October, a strain of influenza B similar to the B strains prevalent between 1967 and 1972 was isolated from a patient in Leicester.

(Reported by the World Health Organization: Weekly Epidemiological Record. 48(44):421, 2 Nov 1973.)

Editorial Note

No virologically confirmed cases of influenza have been reported this fall in the United States; however, symptoms of influenza are indistinguishable from those of a wide variety of viral infections, and many febrile upper respiratory illnesses that occur between October and March may be mistakenly called influenza. Specific diagnosis can be made only by viral isolation, but the presence of influenza can be determined by serologic methods.

FOLLOW-UP ON DIPHTHERIA ON A NAVAJO INDIAN RESERVATION — Arizona, New Mexico

Two deaths due to diphtheria have now been reported to the Indian Health Service from the Navajo Indian Reservation in Arizona and New Mexico (MMWR, Vol. 22, No. 41). These first fatalities together with 2 additional cases bring to 48 the total number of cases reported on the Reservation this year. Both deaths were in previously unimmunized adult Navajos from the Shiprock, New Mexico, area. Their histories are summarized below:

Case 1: A 32-year-old Indian man with a history of alcoholism was admitted to a local hospital on October 9, 1973, with fever, exudative tonsillitis, and lobar pneumonia. Treatment was begun with penicillin and gentamicin. On the second hospital day, diphtheria was suspected, and 80,000 units of antitoxin were given. Congestive heart failure was evident by the third hospital day, and an electrocardiogram showed sinus tachycardia and nonspecific T-wave changes. The patient was treated with diuretics and phlebotomy. Increasing respiratory distress necessitated intubation, which was followed by worsening hypotension and oliguria. The patient was trans-

ferred to another hospital where peritoneal dialysis was begun. The cardiac condition deteriorated further, with nodal bradycardia and subsequent ventricular arrest; all resuscitation efforts failed, and the patient died on October 18. Throat swab culture for *Corynebacterium diphtheriae* was negative, but autopsy disclosed a tracheal membrane and hemorrhagic myocarditis, consistent with diphtheria.

Case 2: A 41-year-old Indian woman with a history of alcoholism presented to the hospital on October 21, 1973, with low-grade fever and respiratory stridor. Examination of the pharynx revealed no cause for the stridor, and rhonchi were heard over both lung fields. The patient was scheduled for indirect laryngoscopy but had a respiratory arrest before the procedure could be done. During resuscitation efforts, a 2 x 10 cm membrane was extracted from the trachea. Diphtheria was diagnosed clinically, and the patient was given diphtheria antitoxin and penicillin. Soon after intubation, she developed a pneumothorax complicated by hypotension and oliguria. She died on October 23. Culture of the membrane

DIPHTHERIA - Continued

grew out toxigenic *C. diphtheriae*, biotype intermedius. Autopsy disclosed a second necrotic membrane in the trachea; the heart appeared normal.

Both of these patients had been seen numerous times in several hospitals and clinics, but medical files showed no record of previous diphtheria immunization. The family contacts of the patients had negative cultures for *C. diphtheriae* and received penicillin intramuscularly. No contact between the 2 patients and other known cases of diphtheria was uncovered.

Control efforts continue on the Navajo Reservation and adjacent areas. Since the highest attack rates have been in adults, vaccination campaigns aimed at the adult Navajo population are being carried out in Gallup, Shiprock, and surrounding communities.

(Reported by Charles O. Garrison, M.D., Pathologist, Cortez, Colorado; Blythe Schroeder, M.D., Intern, John Ullrich, Ph.D., Hospital Pathologist, Bernalillo County Medical Center, Albuquerque; James Orme, M.D., Medical Officer, Taylor McKenzie, M.D., Director, Shiprock Service Unit, V. Alton Dohner, M.D., Deputy Area Director, Navajo Area, Indian Health Service; Wilhelm F. Rosenblatt, M.D., Chief, Communicable Disease Section, New Mexico State Health Agency; Philip M. Hotchkiss, D.V.M., State Epidemiologist, Arizona State Department of Health; and an EIS Officer.)

Editorial Note

Although both of these adult patients had been seen several times in hospitals and outpatient clinics, they had a history of no immunization against diphtheria. Vaccination

of inadequately immunized adults, as might be accomplished in frequently used medical facilities, is particularly important in areas of high endemic diphtheria incidence.

Tetanus and diphtheria toxoid adsorbed, adult (Td), given in 3 separate injections (1) has been shown to be effective in initiating protective serum levels of diphtheria antitoxin (2,3,4), even in adults not previously immunized; in several published studies no significant problems with adverse reactions have been reported (2,3,4,5).

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Erratum, Vol. 22, No. 30, p. 340

In the article, "Quarantine Measures," column 2, line 17, the following correction should be made:

Pennsylvania U.S. Public Health Service Outpatient Clinic
19106
Delete: Pittsburgh
Insert: Philadelphia

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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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Attn: Editor
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