CENTER FOR DISEASE CONTROL

August 27, 1976 / Vol. 25 / No. 33

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Epidemiologic Notes and Reports

Rubella — Hawaii

Ten cases of rubella occurred in the period March 18-July 25, 1976, in tourists from Japan visiting Hawaii. None of the patients — 6 females and 4 males, ranging in age from 6 to 42 — had been vaccinated. One additional secondary case occurred in a 26-year-old male Hawaii resident. Details of the first 4 cases follow.

Two 17-year-old female Japanese exchange students became ill with fever, rash, and postcervical lymphadenopathy within 24 hours of arrival in Hawaii. Single convalescent titers obtained 6 days after the onset of rash were 1:40 and 1:640, respectively. IgM levels indicated recent infection in both patients. Blood tests showed that 10 of the students' 14 female traveling companions (71%) were susceptible to rubella.

The third patient was a 31-year-old airline stewardess, who developed clinical rubella 2 weeks after an extensive tour of duty in Japan and Guam. Acute and convalescent sera showed a greater than 4-fold rise in rubella antibody. The fourth patient, a 24-year-old school teacher who had been teaching in Japan for 9 months, developed fever and rash upon arrival in Honolulu. She had a greater than 4-fold rise in rubella antibody.

The Hawaii Department of Health immediately immunized family and other contacts of all cases. Only 1 secondary case occurred, despite an estimated 50% susceptibility rate among family and contacts. Because the susceptibility of the adult female population in Hawaii is markedly higher than on the U.S. mainland, the Hawaii Department of Health has advised the airline and tourist industries to recommend rubella immunization for employees having contact with the public. Over 2,200 workers from those industries have undergone serologic testing for rubella antibody. Of this number, 1,803 have been immunized.

Reported by C Ibara, BS, N Wiebenga, MD, State Epidemiologist, Hawaii Dept of Health; Field Services Div, and Quarantine Div, Bureau of Epidemiology, CDC.

Editorial Note: These cases demonstrate the value of careful surveillance for rash illnesses. Rubella presents a unique problem in Hawaii. Prior to vaccine availability, susceptibility levels in all age groups were markedly higher than in the continental United States. An excellent program of vaccination, begun in 1969, as well as strict enforcement of a school entry law requiring rubella (and other) vaccines, and intensive surveillance activities have effected excellent control of rubella — 64 reported cases in 1974 and 39 in 1975. Nevertheless, the susceptibility rates in persons past the age of puberty in or since 1969, the time of vaccine availability, still remains high. Although more than 95% of school-aged children are immunized, recent serologic surveys show that approximately 50% of adults native to Hawaii have no demonstrable antibodies to rubella.

Penicillinase-producing *Neisseria gonorrhoeae*

The Bureau of Laboratories, CDC, has identified 2 penicillinase-producing isolates of *Neisseria gonorrhoeae*, obtained from a patient in Maryland and a patient in California, who were first seen in February and April 1976, respectively. Both remained symptomatic after receiving 4.8 million units of aqueous procaine penicillin G with 1 gram of probenecid and were treated with a variety of regimens before responding to spectinomycin. Further epidemiologic and clinical data are being obtained.

Reported by WA Ashford, Col. RN Lucas, and Col. MB Miller, David Grant Medical Center, Travis Air Force Base, California; J Chin, MD, State Epidemiologist, California State Dept of Health; WJ Marek, MD, St. Mary's County, and KH Acree, MDCM, State Epidemiologist, Maryland State Dept of Health and Mental Hygiene; Bur of Laboratories and Bur of State Services, CDC.

Editorial Note: This appears to be the first time that penicillinase-producing gonococci have been isolated from patients, and a search for additional cases is being undertaken. CDC recommends that all patients with gonorrhea be cultured 7 to 14 days after completion of treatment to confirm cure. Patients with a positive culture should be re-treated with 2 grams of spectinomycin intramuscularly. If prior arrangements have been made, gonococcal isolates for penicillinase testing may be sent to the Bureau of Laboratories, CDC, through state health department laboratories.

Current Trends

St. Louis Encephalitis — United States

The first reported outbreak of St. Louis Encephalitis in the United States in 1976 has occurred in Tuscaloosa County, Alabama. As of August 20, the county reported 2 confirmed and 8 presumptive cases with onset of illness between July 15 and August 1.* Clinically, 9 of the 10 patients had encephalitis; the youngest had aseptic meningitis. The patients ranged in age from 14 to 85, with a median age of 62. Eight resided in a 2-square mile, lower socioeconomic section of southwestern Tuscaloosa city. The other 2 cases lived about 4 and 5 miles, respectively, outside the city. Over 30 suspect cases remain under investigation.

Beginning in late July, the city of Tuscaloosa, with the recommendation of the West Alabama District Health Department, intensified vector control activities. By August 18, almost no adult vector mosquitoes were being found in the primarily affected area of the city.

As of August 20, the Alabama State Department of Health reported to CDC 1 confirmed and 1 presumptive case of St. Louis Encephalitis outside of Tuscaloosa County. Cases were also reported from California (1 confirmed), Illinois (1 confirmed), Louisiana (1 presumptive), Mississippi (4 confirmed, 5 presumptive), Ohio (1 confirmed, 1 presumptive), Tennessee (2 confirmed), and Texas (4 confirmed, 6 presumptive).

Reported by C Konigsberg, MD, MPH, Colonel G Taft, MSSE, West Alabama District Health Dept; B Helton, RN, V Johnson, FS Wolf, MD, State Epidemiologist, Alabama State Dept of Health; Medical Entomology Br, Vector Biology and Control Div, Bur of Tropical Diseases, Field Surveillance Br, Field Services Div, and Enteric and Neurotropic Viral Diseases Br, Viral Diseases Div, Bur of Epidemiology, CDC.

*A confirmed case has a 4-fold change in serum antibody titers to St. Louis Encephalitis virus. A presumptive case has a complement fixing antibody titer > 1:16 and/or a hemagglutination inhibition antibody titer > 1:80.

Table I. Summary—Cases of Specified Notifiable Diseases: United States

[Cumulative totals include revised and delayed reports through previous weeks]

DISEASE	33rd WEEK ENDING		MEDIAN 1971–1975	CUMULATIVE, FIRST 33 WEEKS		
	August 21, 1976	August 16, 1975		August 21, 1976	August 16, 1975	MEDIAN 1971–1975
Aseptic meningitis	113	134	135	1,496	1,793	1,742
Brucellosis	4	3	4	160	147	113
Chickenpox	300	344	---	146,082	115,944	---
Diphtheria	2	1	2	123	200	118
Encephalitis: Primary	25	66	44	545	583	576
Encephalitis: Post-Infectious	6	9	5	191	219	198
Hepatitis, Viral: Type B	328	225	184	9,284	7,238	5,843
Hepatitis, Viral: Type A	640	614	894	21,797	22,193	31,983
Hepatitis, Viral: Type unspecified	161	112		5,579	5,114	
Malaria	10	6	6	269	251	251
Measles (rubeola)	141	157	131	34,011	20,977	23,787
Meningococcal infections, total	25	12	12	1,123	1,003	998
Civilian	25	10	12	1,114	980	973
Military	-	2	-	9	23	25
Mumps	127	302	371	31,932	45,887	54,298
Pertussis	25	78	---	609	924	---
Rubella (German measles)	49	73	117	10,480	14,606	20,240
Tetanus	2	2	3	35	51	58
Tuberculosis	633	671	---	21,302	21,092	---
Tularemia	5	3	3	86	83	91
Typhoid fever	11	9	6	236	197	203
Typhus, tick-borne (Rky. Mt. spotted fever)	42	22	26	609	580	466
Venereal Diseases:						
Gonorrhea: Civilian	21,409	20,389	---	628,575	614,842	---
Gonorrhea: Military	588	868	---	18,839	19,226	---
Syphilis, primary and secondary: Civilian	505	505	---	15,307	16,243	---
Syphilis, primary and secondary: Military	6	4	---	223	232	---
Rabies in animals	59	46	73	1,745	1,607	2,376

Table II. Notifiable Diseases of Low Frequency: United States

	CUM.		CUM.
Anthrax:	2	Poliomyelitis, total:	8
Botulism:	19	Paralytic:	7
Congenital rubella syndrome:	15	Psittacosis:	30
Leprosy: Tex. 1, Cal. 3	91	Rabies in man:	1
Leptospirosis: Nev. 1	27	Trichinosis:	66
Plague:	12	Typhus, murine: Tex. 3	33

Table III
Cases of Specified Notifiable Diseases: United States
Weeks Ending August 21, 1976 and August 16, 1975 – 33rd Week

AREA REPORTING	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS, VIRAL			MALARIA	
						Primary: Arthropod-borne and Unspecified		Post Infectious	Type B	Type A	Type Unspecified		
	1976	1976	1976	1976	CUM. 1976	1976	1975	1976	1976	1976	1976	1976	CUM. 1976
UNITED STATES	113	4	300	2	123	25	66	6	328	640	161	10	269
NEW ENGLAND	2	–	17	–	–	1	2	–	8	19	17	–	13
Maine	–	–	1	–	–	–	–	–	–	1	–	–	–
New Hampshire*	–	–	–	–	–	–	–	–	–	–	–	–	–
Vermont	–	–	–	–	–	–	–	–	–	–	–	–	–
Massachusetts	2	–	10	–	–	–	2	–	3	2	17	–	6
Rhode Island	–	–	2	–	–	–	–	–	3	2	–	–	3
Connecticut	–	–	4	–	–	1	–	–	2	14	–	–	4
MIDDLE ATLANTIC	14	–	76	–	–	2	2	–	88	84	24	2	53
Upstate New York	3	–	60	–	–	1	–	–	4	5	–	1	11
New York City	1	–	15	–	–	–	–	–	21	17	–	1	23
New Jersey*	7	–	NN	–	–	–	–	–	38	29	17	–	10
Pennsylvania	3	–	1	–	–	1	2	–	25	33	7	–	9
EAST NORTH CENTRAL	8	–	91	–	–	5	5	1	41	100	17	–	16
Ohio	3	–	6	–	–	2	5	–	13	40	–	–	7
Indiana	–	–	13	–	–	–	–	–	1	1	10	–	–
Illinois	2	–	11	–	–	1	–	–	4	33	5	–	7
Michigan	2	–	38	–	–	1	–	1	19	24	2	–	6
Wisconsin	1	–	23	–	–	1	–	–	4	2	–	–	1
WEST NORTH CENTRAL	4	–	11	–	4	–	27	–	16	34	9	1	17
Minnesota	4	–	–	–	–	–	10	–	4	7	1	–	3
Iowa	–	–	6	–	–	–	1	–	–	–	–	–	–
Missouri*	–	–	1	–	1	–	3	–	11	11	7	–	9
North Dakota	–	–	3	–	–	–	13	–	–	1	–	–	–
South Dakota	–	–	1	–	3	–	–	–	–	2	–	1	3
Nebraska	–	–	–	–	–	–	–	–	–	–	–	–	1
Kansas	–	–	–	–	–	–	–	–	1	13	1	–	1
SOUTH ATLANTIC	21	–	62	–	–	–	4	–	31	96	19	4	44
Delaware	–	–	5	–	–	–	–	–	4	1	2	–	–
Maryland	1	–	–	–	–	–	1	–	8	8	6	1	7
District of Columbia	–	–	1	–	–	–	–	–	2	–	–	–	5
Virginia*	1	–	–	–	–	–	2	–	7	9	2	–	8
West Virginia*	–	–	47	–	–	–	–	–	–	4	–	–	1
North Carolina*	11	–	NN	–	–	–	–	–	6	17	3	–	4
South Carolina	–	–	–	–	–	–	–	–	1	11	1	–	1
Georgia	–	–	2	–	–	–	–	–	–	23	–	–	4
Florida	8	–	7	–	–	–	1	–	3	23	5	3	14
EAST SOUTH CENTRAL	22	–	1	–	–	5	16	1	22	61	1	–	1
Kentucky	4	–	1	–	–	1	–	–	5	11	1	–	–
Tennessee	4	–	NN	–	–	1	2	1	4	32	–	–	–
Alabama*	12	–	–	–	–	3	6	–	11	6	–	–	–
Mississippi	2	–	–	–	–	–	8	–	2	12	–	–	1
WEST SOUTH CENTRAL	10	3	13	–	1	3	6	1	22	45	27	–	11
Arkansas	4	–	2	–	–	–	3	–	–	4	1	–	–
Louisiana	1	–	NN	–	–	–	1	1	–	12	1	–	1
Oklahoma*	–	–	1	–	–	1	–	–	7	13	4	–	1
Texas	5	3	10	–	1	2	2	–	15	16	21	–	9
MOUNTAIN	3	–	11	–	4	–	–	–	13	39	8	–	10
Montana	–	–	6	–	–	–	–	–	–	1	–	–	–
Idaho	1	–	–	–	–	–	–	–	–	2	1	–	–
Wyoming	–	–	–	–	–	–	–	–	–	–	–	–	–
Colorado	–	–	5	–	3	–	–	–	11	16	4	–	7
New Mexico	–	–	–	–	1	–	–	–	1	11	–	–	1
Arizona	–	–	NN	–	–	–	–	–	–	4	1	–	1
Utah	–	–	–	–	–	–	–	–	1	3	2	–	–
Nevada	2	–	–	–	–	–	–	–	–	2	–	–	1
PACIFIC	29	1	18	2	114	9	4	3	87	162	39	3	104
Washington	1	–	3	2	110	–	–	–	10	13	9	–	2
Oregon	2	–	1	–	–	1	–	–	1	5	4	–	5
California	24	1	–	–	1	8	3	3	75	143	26	3	96
Alaska	1	–	4	–	3	–	1	–	–	–	–	–	–
Hawaii	1	–	10	–	–	–	–	–	1	1	–	–	1
Guam*	–	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	–	–	25	–	1	–	1	–	–	5	–	–	1
Virgin Islands	–	–	–	–	–	–	–	–	–	–	–	–	–

NN: Not Notifiable

*Delayed Reports: Asep. Men.: New Jers. add 1, Mo. add 1; Chickenpox: Guam add 2; Enceph.: N. Carol. delete 1, Ala. add 3; Hep. B: New Hamp. add 1; Hep. A: New Hamp. delete 1, N. Carol. delete 2, Guam add 1; Hep. Unsp.: Va. delete 2, Guam add 2; Malaria: W. Va. add 2, Okla. add 1.

Table III-Continued
Cases of Specified Notifiable Diseases: United States
Weeks Ending August 21, 1976 and August 16, 1975 – 33rd Week

REPORTING AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1976	CUMULATIVE		1976	CUMULATIVE		1976	CUM. 1976	1976	1976	CUM. 1976	CUM. 1976
		1976	1975		1976	1975						
UNITED STATES	141	34,011	20,977	25	1,123	1,003	127	31,932	25	49	10,480	35
NEW ENGLAND	3	379	305	3	49	58	4	1,261	-	3	272	1
Maine	1	7	14	-	1	6	-	114	-	-	3	-
New Hampshire*	-	11	22	-	4	2	-	25	-	-	11	-
Vermont	2	36	49	-	3	-	-	8	-	-	1	-
Massachusetts	-	37	110	1	13	20	-	149	-	-	135	1
Rhode Island	-	14	3	-	5	3	-	445	-	-	5	-
Connecticut	-	274	107	2	23	27	4	520	-	3	117	-
MIDDLE ATLANTIC	35	6,954	1,737	2	152	101	15	2,974	4	1	2,267	3
Upstate New York	19	2,921	571	-	61	28	2	369	1	-	599	2
New York City	3	448	135	2	40	29	7	1,577	2	-	158	-
New Jersey	-	591	457	-	19	17	1	492	-	-	1,334	-
Pennsylvania	13	2,994	574	-	32	27	5	536	1	1	196	1
EAST NORTH CENTRAL	43	14,391	6,226	7	172	136	34	13,233	2	14	3,897	2
Ohio*	1	566	106	6	91	35	-	1,890	2	1	276	1
Indiana	9	3,259	364	-	6	6	5	1,428	-	-	696	-
Illinois	6	1,521	1,760	1	17	19	4	1,745	-	2	1,160	-
Michigan*	17	5,709	2,999	-	49	58	5	4,818	-	7	1,361	1
Wisconsin	10	3,336	997	-	9	18	20	3,352	-	4	404	-
WEST NORTH CENTRAL	4	1,100	4,961	2	68	61	8	3,242	-	2	385	9
Minnesota*	2	390	182	-	12	15	1	544	-	-	26	1
Iowa	-	33	570	-	9	5	-	1,147	-	-	84	-
Missouri	-	17	265	1	25	30	6	315	-	1	32	2
North Dakota	-	3	1,048	-	3	-	-	121	-	-	3	1
South Dakota	-	4	356	-	1	1	-	7	-	1	19	-
Nebraska	-	55	395	1	5	2	-	99	-	-	3	-
Kansas	2	598	2,145	-	13	8	1	1,009	-	-	218	1
SOUTH ATLANTIC	7	2,245	317	3	201	203	15	2,424	-	5	1,267	7
Delaware	-	128	35	-	6	6	2	52	-	-	33	-
Maryland	-	829	48	-	16	24	6	658	-	-	3	2
District of Columbia	-	12	1	-	2	5	-	100	-	-	45	-
Virginia	7	754	36	1	25	17	4	197	-	1	234	1
West Virginia	-	183	140	-	6	5	2	740	-	4	283	-
North Carolina	-	15	2	-	37	36	-	371	-	-	17	-
South Carolina	-	4	-	-	36	33	-	39	-	-	590	-
Georgia	-	2	30	-	19	10	-	-	-	-	2	-
Florida	-	318	25	2	54	67	1	267	-	-	60	4
EAST SOUTH CENTRAL	5	812	271	3	101	150	12	2,721	6	4	348	7
Kentucky	5	746	83	-	18	61	5	952	-	1	155	2
Tennessee	-	50	177	1	43	47	4	1,457	6	3	181	4
Alabama	-	-	3	2	29	29	3	259	-	-	1	1
Mississippi	-	16	8	-	11	13	-	53	-	-	11	-
WEST SOUTH CENTRAL	8	685	288	2	174	161	16	2,248	9	11	513	7
Arkansas	-	-	-	-	11	8	1	72	8	-	190	-
Louisiana	7	194	-	1	34	28	-	22	-	-	85	2
Oklahoma	-	289	125	-	18	9	5	639	1	3	63	-
Texas	1	202	163	1	111	116	10	1,515	-	8	175	5
MOUNTAIN	2	5,064	1,397	2	39	34	1	1,098	-	-	469	1
Montana	1	203	50	-	4	7	-	20	-	-	234	-
Idaho	-	2,020	11	-	4	5	-	440	-	-	18	-
Wyoming	-	3	1	-	-	-	-	1	-	-	2	-
Colorado	-	305	1,158	-	11	9	1	221	-	-	22	-
New Mexico	-	15	13	1	4	4	-	127	-	-	31	-
Arizona	-	226	71	1	10	1	-	-	-	-	-	1
Utah	1	2,229	66	-	4	7	-	175	-	-	143	-
Nevada	-	63	27	-	2	1	-	114	-	-	19	-
PACIFIC	34	2,381	5,475	1	167	99	22	2,791	4	9	1,062	2
Washington	2	336	285	-	28	16	1	868	-	-	162	-
Oregon	1	152	196	-	15	4	1	343	-	-	134	1
California	31	1,886	4,930	1	104	75	19	1,493	4	8	747	1
Alaska	-	4	-	-	17	3	1	21	-	-	1	-
Hawaii	-	3	64	-	3	1	-	26	-	1	18	-
Guam	-	12	31	-	1	2	-	13	-	-	5	-
Puerto Rico	7	334	584	-	3	1	9	640	2	-	9	4
Virgin Islands	-	9	8	-	-	-	-	22	-	-	8	1

*Delayed Reports: Measles: N. Hamp. delete 2, Mich. add 118, Minn. add 23; Mening. Inf.: Ohio delete 33.

Table III-Continued
Cases of Specified Notifiable Diseases: United States
Weeks Ending August 21, 1976 and August 16, 1975 – 33rd Week

REPORTING AREA	TUBERCULOSIS		TULAREMIA	TYPHOID FEVER		TYPHUS FEVER TICK-BORNE (RMSF)		VENEREAL DISEASES (Civilian Cases Only)						RABIES IN ANIMALS
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
									CUMULATIVE			CUMULATIVE		
	1976	CUM. 1976	CUM. 1976	1976	CUM. 1976	1976	CUM. 1976	1976	1976	1975	1976	1976	1975	CUM. 1976
UNITED STATES	633	21,302	86	11	236	42	609	21,409	628,575	614,842	505	15,307	16,243	1,745
NEW ENGLAND	22	763	1	1	19	–	7	552	17,417	16,831	33	500	564	32
Maine	3	51	–	–	–	–	–	56	1,461	1,276	–	13	20	17
New Hampshire	3	33	–	–	2	–	–	17	479	466	–	8	11	–
Vermont	–	21	–	–	–	–	–	17	429	410	1	6	5	–
Massachusetts	11	459	1	–	13	–	4	155	8,366	7,838	28	360	360	12
Rhode Island	2	55	–	–	–	–	2	68	1,142	1,361	–	16	12	1
Connecticut	3	144	–	1	4	–	1	239	5,540	5,480	4	97	156	2
MIDDLE ATLANTIC	107	4,054	3	4	41	2	33	3,626	73,757	71,932	97	2,564	2,978	24
Upstate New York	16	627	2	3	8	–	19	495	11,380	12,731	6	155	279	7
New York City	37	1,668	1	1	20	–	3	1,576	33,514	31,099	61	1,575	1,700	–
New Jersey	36	786	–	–	8	1	8	627	11,191	9,998	10	387	469	3
Pennsylvania	18	973	–	–	5	1	3	930	17,672	18,104	20	447	530	14
EAST NORTH CENTRAL	81	2,978	1	3	23	1	11	2,847	99,588	100,644	20	1,360	1,334	109
Ohio	19	566	–	3	9	1	9	760	24,759	27,824	11	317	307	12
Indiana	6	353	–	–	–	–	–	138	9,735	8,801	2	74	99	20
Illinois	24	1,011	1	–	5	–	–	863	34,657	34,919	4	742	649	18
Michigan	24	876	–	–	8	–	2	802	20,986	19,482	3	156	219	5
Wisconsin	8	172	–	–	1	–	–	284	9,451	9,618	–	71	60	54
WEST NORTH CENTRAL	32	787	20	–	11	2	16	1,068	32,402	30,371	14	273	405	446
Minnesota	8	141	3	–	6	–	–	181	5,896	6,322	3	63	73	100
Iowa	3	69	1	–	1	1	2	166	4,101	4,321	3	29	23	93
Missouri	10	390	14	–	3	–	7	376	12,847	10,908	2	110	195	45
North Dakota	3	23	–	–	–	–	–	16	481	474	–	–	5	86
South Dakota*	1	35	1	–	–	–	2	35	921	1,190	–	4	5	55
Nebraska	1	37	–	–	–	–	–	136	2,822	2,689	4	22	13	12
Kansas*	6	92	1	–	1	1	5	158	5,334	4,467	2	45	91	55
SOUTH ATLANTIC	121	4,603	6	2	31	23	308	5,373	151,754	152,775	161	4,487	5,080	277
Delaware*	2	51	–	–	–	–	1	35	2,037	2,156	1	45	65	13
Maryland	16	657	1	–	–	–	17	476	20,256	17,960	11	376	375	11
District of Columbia	3	194	–	–	–	–	–	322	9,000	9,038	7	400	436	–
Virginia	7	743	2	1	4	2	71	741	15,929	15,186	14	431	387	44
West Virginia	2	184	–	–	3	–	6	90	1,998	1,895	–	19	36	11
North Carolina*	26	833	3	–	1	10	135	470	22,297	21,530	25	832	631	6
South Carolina*	8	335	–	1	4	5	39	965	14,476	14,358	19	249	345	3
Georgia	32	571	–	–	2	6	38	565	28,106	28,419	16	486	657	132
Florida	25	1,035	–	–	17	–	1	1,709	37,655	42,233	68	1,649	2,148	57
EAST SOUTH CENTRAL	82	1,783	13	–	9	10	115	1,882	55,846	52,175	13	616	706	89
Kentucky*	13	373	1	–	5	1	26	301	7,126	6,817	5	90	110	46
Tennessee	30	551	12	–	4	4	68	551	22,194	20,725	3	217	268	31
Alabama	18	528	–	–	–	4	8	695	15,880	14,355	3	130	162	12
Mississippi	21	331	–	–	–	1	13	335	10,646	10,278	2	179	166	–
WEST SOUTH CENTRAL	85	2,426	30	–	10	4	111	1,980	81,236	75,226	53	1,811	1,380	411
Arkansas	8	310	15	–	2	–	16	168	7,567	7,702	2	59	41	102
Louisiana	26	353	2	–	2	–	–	329	11,898	14,024	8	386	324	4
Oklahoma	6	223	7	–	1	2	84	215	7,653	7,227	–	69	49	100
Texas	45	1,540	6	–	5	2	11	1,268	54,118	46,273	43	1,297	966	205
MOUNTAIN	17	591	2	–	18	–	3	785	24,162	24,042	27	517	375	96
Montana	–	35	2	–	2	–	–	40	1,268	1,289	–	6	4	62
Idaho	–	18	–	–	1	–	1	47	1,295	1,197	–	24	9	–
Wyoming	3	16	–	–	–	–	–	3	473	560	–	8	9	1
Colorado	–	96	–	–	4	–	1	257	6,299	5,929	2	109	67	4
New Mexico	1	105	–	–	1	–	1	138	4,746	4,397	21	175	102	3
Arizona*	13	274	–	–	9	–	–	241	7,099	6,580	4	152	136	20
Utah	–	24	–	–	1	–	–	56	1,266	1,543	–	17	11	6
Nevada*	–	23	–	–	–	–	–	3	1,716	2,547	–	26	37	–
PACIFIC	86	3,317	10	1	74	–	5	3,296	92,413	90,846	87	3,179	3,421	261
Washington	–	263	2	–	3	–	4	247	7,732	8,262	–	79	118	4
Oregon	7	123	1	–	–	–	–	205	6,816	6,819	3	66	88	5
California	72	2,465	7	1	69	–	1	2,697	73,479	71,926	81	2,951	3,179	212
Alaska	–	61	–	–	–	–	–	108	2,646	2,237	–	12	4	40
Hawaii	7	405	–	–	2	–	–	39	1,740	1,602	3	71	32	–
Guam*	–	30	–	–	–	–	–	–	202	274	–	1	8	–
Puerto Rico	27	259	–	–	1	–	–	101	1,834	1,851	13	375	452	28
Virgin Islands	–	5	–	–	–	–	–	–	162	114	–	45	22	–

*Delayed Reports: TB: Kans. delete 3, Dela. delete 1, N. Carol. delete 2, S. Carol. delete 1, Ky. delete 1; GC, civ.: S. Dak. delete 1, Nev. add 12, Guam add 8; GC, Mil.: Nev. add 11; Rabies in Animals: Ariz. add 1.

Table IV
Deaths in 121 United States Cities*
Week Ending August 14, 1976 – 32nd Week

REPORTING AREA	ALL CAUSES					Pneumonia and Influenza ALL AGES
	ALL AGES	65 Years and Over	45-64 Years	25-44 Years	Under 1 Year	
NEW ENGLAND	589	360	168	21	20	36
Boston, Mass.	168	104	50	4	8	9
Bridgeport, Conn.	40	21	16	1	1	4
Cambridge, Mass.	18	10	6	-	1	4
Fall River, Mass.	18	16	2	-	-	-
Hartford, Conn.	56	33	17	4	1	-
Lowell, Mass.	21	16	4	-	-	2
Lynn, Mass.	16	12	4	-	-	-
New Bedford, Mass.	25	16	6	1	-	1
New Haven, Conn.	45	20	11	5	5	-
Providence, R.I.	49	28	15	1	3	9
Somerville, Mass.	6	2	3	-	-	-
Springfield, Mass.	40	29	9	1	-	1
Waterbury, Conn.	35	21	10	1	-	3
Worcester, Mass.	52	32	15	3	1	3
MIDDLE ATLANTIC	2,662	1,609	707	185	74	109
Albany, N. Y.	44	25	15	2	1	1
Allentown, Pa.	37	26	9	1	1	3
Buffalo, N. Y.	102	53	36	3	7	10
Camden, N. J.	32	17	12	1	1	1
Elizabeth, N. J.	21	13	5	1	1	-
Erie, Pa.	30	21	6	1	-	1
Jersey City, N. J.	35	11	24	-	-	2
Newark, N. J.	58	26	17	7	5	-
New York City, N. Y.	1,347	843	327	111	31	40
Paterson, N. J.	32	20	5	6	1	1
Philadelphia, Pa.	389	228	106	26	16	24
Pittsburgh, Pa.	186	103	62	11	4	13
Reading, Pa.	39	30	7	1	-	1
Rochester, N. Y.	110	57	32	6	4	2
Schenectady, N. Y.	23	16	4	3	-	-
Scranton, Pa.	33	27	5	-	-	3
Syracuse, N. Y.	69	44	17	1	2	2
Trenton, N. J.	37	22	10	2	-	3
Utica, N. Y.	21	16	2	2	-	1
Yonkers, N. Y.	17	11	6	-	-	1
EAST NORTH CENTRAL	2,189	1,226	602	143	124	55
Akron, Ohio	59	35	11	5	5	-
Canton, Ohio	32	15	13	1	2	-
Chicago, Ill.	568	305	155	43	44	15
Cincinnati, Ohio	125	80	34	2	4	2
Cleveland, Ohio	187	85	66	12	17	3
Columbus, Ohio	142	68	45	10	16	9
Dayton, Ohio	83	52	19	6	4	-
Detroit, Mich.	267	144	71	26	10	6
Evansville, Ind.	36	22	8	2	-	-
Fort Wayne, Ind.	48	31	9	2	4	3
Gary, Ind.	26	10	8	2	1	1
Grand Rapids, Mich.	42	25	14	1	1	3
Indianapolis, Ind.	138	78	40	12	-	2
Madison, Wis.	29	17	8	2	-	2
Milwaukee, Wis.	113	77	23	6	6	-
Peoria, Ill.	33	19	10	-	3	3
Rockford, Ill.	48	28	13	2	3	-
South Bend, Ind.	59	38	14	3	1	3
Toledo, Ohio	100	60	28	6	3	3
Youngstown, Ohio	54	37	13	-	-	-
WEST NORTH CENTRAL	700	420	174	38	42	18
Des Moines, Iowa	41	26	12	1	1	-
Duluth, Minn.	29	19	4	2	2	1
Kansas City, Kans.	37	20	11	2	3	2
Kansas City, Mo.	109	66	29	7	6	-
Lincoln, Nebr.	19	14	2	2	-	-
Minneapolis, Minn.	96	52	23	6	11	4
Omaha, Nebr.	85	55	22	2	2	-
St. Louis, Mo.	184	108	45	11	12	4
St. Paul, Minn.	55	37	14	1	2	-
Wichita, Kans.	45	23	12	4	3	7

REPORTING AREA	ALL CAUSES					Pneumonia and Influenza ALL AGES
	ALL AGES	65 Years and Over	45-64 Years	25-44 Years	Under 1 Year	
SOUTH ATLANTIC	1,160	662	322	83	53	41
Atlanta, Ga.	117	58	33	15	7	4
Baltimore, Md.	250	134	75	20	8	4
Charlotte, N. C.	58	27	17	6	5	3
Jacksonville, Fla.	97	62	24	3	4	3
Miami, Fla.	136	86	40	5	2	4
Norfolk, Va.	58	35	11	6	4	5
Richmond, Va.	76	40	26	4	2	7
Savannah, Ga.	33	19	11	2	1	2
St. Petersburg, Fla.	82	66	10	1	5	2
Tampa, Fla.	61	33	19	3	2	-
Washington, D. C.	150	75	46	14	12	2
Wilmington, Del.	42	27	10	4	1	5
EAST SOUTH CENTRAL	676	363	207	45	22	39
Birmingham, Ala.	108	46	43	7	6	2
Chattanooga, Tenn.	55	38	14	2	-	8
Knoxville, Tenn.	34	22	10	1	-	-
Louisville, Ky.	127	60	44	10	6	17
Memphis, Tenn.	166	98	44	8	4	4
Mobile, Ala.	48	28	12	4	1	3
Montgomery, Ala.	59	26	17	8	4	4
Nashville, Tenn.	79	45	23	5	1	1
WEST SOUTH CENTRAL	1,202	664	306	106	53	28
Austin, Tex.	28	18	6	1	-	2
Baton Rouge, La.	56	26	13	4	7	-
Corpus Christi, Tex.	40	17	14	2	3	-
Dallas, Tex.	191	105	52	24	6	2
El Paso, Tex.	53	31	11	2	3	4
Fort Worth, Tex.	80	43	18	8	5	2
Houston, Tex.	244	135	63	22	10	5
Little Rock, Ark.	81	47	18	9	-	5
New Orleans, La.	152	79	42	17	9	3
San Antonio, Tex.	151	88	37	9	3	1
Shreveport, La.	66	39	19	4	2	1
Tulsa, Okla.	60	36	13	4	5	3
MOUNTAIN	438	255	91	29	24	10
Albuquerque, N. Mex.	46	23	7	5	3	4
Colorado Springs, Colo.	33	22	4	3	1	2
Denver, Colo.	105	54	29	7	8	2
Las Vegas, Nev.	17	7	7	1	-	1
Ogden, Utah	11	7	2	1	-	-
Phoenix, Ariz.	110	65	22	5	5	-
Pueblo, Colo.	12	9	1	1	-	1
Salt Lake City, Utah	45	26	9	3	5	-
Tucson, Ariz.	59	42	10	3	2	-
PACIFIC	1,475	930	350	79	61	29
Berkeley, Calif.	15	11	3	-	-	-
Fresno, Calif.	75	47	18	4	3	-
Glendale, Calif.	21	17	4	-	-	-
Honolulu, Hawaii	42	21	16	3	-	-
Long Beach, Calif.	89	57	20	5	3	-
Los Angeles, Calif.	427	274	101	27	15	12
Oakland, Calif.	74	36	26	6	5	-
Pasadena, Calif.	34	22	6	1	4	1
Portland, Oreg.	132	84	34	6	2	-
Sacramento, Calif.	52	32	10	4	3	-
San Diego, Calif.	96	61	22	4	1	3
San Francisco, Calif.	140	90	29	6	9	3
San Jose, Calif.	60	32	17	4	3	-
Seattle, Wash.	130	85	29	5	8	2
Spokane, Wash.	51	34	10	3	2	6
Tacoma, Wash.	37	27	5	1	3	2
TOTAL	11,091	6,489	2,927	729	473	365
Expected Number	11,543	6,862	3,024	783	381	355

The Morbidity and Mortality Weekly Report, circulation 52,000, is published by the Center for Disease Control, Atlanta, Georgia. 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.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Send reports to: Center for Disease Control, Attn.: Editor, Morbidity and Mortality Weekly Report, Atlanta, Georgia 30333.

Send mailing list additions, deletions, and address changes to: Center for Disease Control, Attn.: Distribution Services, GSO, 1-SB-36, Atlanta, Georgia 30333. When requesting changes be sure to give your former address, including zip code and mailing list code number, or send an old address label.

Influenza — Worldwide

United States: There have been isolated case reports of influenza-like illness from physicians in Alabama, Montana, Ohio, Oregon, Utah, and Wisconsin, a normal level of reporting for this time of year, but there have been no isolations of any influenza A viruses. There has been 1 isolate from Michigan of a B/Hong Kong-like virus from a single case occurring in the last week in July.

Reported by HF Maassab, PhD, University of Michigan, Ann Arbor; NS Hayner, MD, State Epidemiologist, Michigan State Dept of Public Health; and the National Influenza Immunization Program, CDC.

Worldwide: Malaysia reports localized influenza outbreaks June 10-July 3 with isolates of 3 influenza A strains but no isolates of A/New Jersey-like virus. There have been no other recent reports of influenza-like illness except in Australia, which is reporting the apparent end of its 9-week A/Victoria epidemic.

Reported by the World Health Organization in the Weekly Epidemiologic Record *51(32,33):258, 266, August 6 and 13, 1976.*

Epidemiologic Notes and Reports

Follow-up on Respiratory Disease — Pennsylvania

The epidemic of respiratory disease associated with the American legionnaires who attended a Philadelphia convention in late July appears to be over. Surveys of guests staying at 3 Philadelphia hotels in the 2 weeks following the convention showed no evidence of continuing risk. No new cases relating to the convention, with onset after August 6, have been reported, although, as expected, a few cases which meet the clinical criteria of the disease have been reported with onsets since that date. However, these cases do not appear to be part of the epidemic. As of August 23, 175 cases, including 26 deaths, were recorded.

Results of a questionnaire survey of sick and well Legionnaires demonstrated that persons at greatest risk of illness were voting delegates who stayed at one hotel. There continues to be no evidence of secondary spread to family contacts. No cause for the outbreak has been identified despite continuing toxicologic and microbiologic investigation of specimens from cases and the environment.

Reported by RG Sherrer, MD, City of Philadelphia Dept of Public Health; E Streiff, RN, MPH, Allegheny County Dept of Health; WE Parkin, DVM, Acting State Epidemiologist, Pennsylvania State Dept of Health; Bur of Epidemiology and Bur of Laboratories, CDC.

Chloramphenicol-resistant *Haemophilus influenzae* — Connecticut, Massachusetts

Nontypable, chloramphenicol-resistant *Haemophilus influenzae* was recovered in a Massachusetts hospital from the blood of a 38-year-old Connecticut woman with agammaglobulinemia on April 5, 1976. The patient had had frequent pyogenic infections since childhood including *H. influenzae* meningitis (type unknown) at age 4. Repeated pulmonary infections with resultant pulmonary insufficiency necessitated repeated hospitalizations, especially during the past year. For the past 6 years she had received chloramphenicol for 2 weeks each month spaced between twice monthly gamma globulin injections.

On February 27, *H. influenzae*, type unknown, was first isolated from her sputum; it was sensitive to ampicillin but was not tested for chloramphenicol. Subsequently, the patient had repeated febrile episodes and nontypable *H. influenzae* was recovered from her blood on 5 occasions, including once when she was receiving parenteral chloramphenicol. She died on May 27 of respiratory failure.

Organisms from 3 blood cultures, one conjunctival culture, and one sputum culture—all obtained during April and May—were resistant to 16-32 μg/ml chloramphenicol, by the tube dilution technique. Testing with a 30 μg disk resulted in a zone of 12 mm of inhibition. All isolates, with the exception of the last blood isolate on May 24, were resistant to ampicillin and produced β-lactamase (minimum inhibiting concentration = 32 μg/ml ampicillin). The blood isolate on May 24 was sensitive to ampicillin and did not produce β-lactamase.

Reported by F O'Brian, MD, Hartford; J Gettals, MD, B Lahiri, MD, R Lyons, MD, S Rubin, PhD, St. Francis Hospital, Hartford; J Lewis, MD, State Epidemiologist, Connecticut State Dept of Health; R Moellering, MD, Massachusetts General Hospital, Boston; NJ Fiumara, MD, State Epidemiologist, Massachusetts State Dept of Public Health; Clinical Bacteriology Br, Bacteriology Div, Bur of Laboratories; and Special Pathogens Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: There have been 2 previously reported isolates of *H. influenzae* resistant to chloramphenicol. The first isolate was a type b organism recovered in Texas from spinal fluid (*1*), and the second, a nontypable strain, was cultured from the throat of a 4-year-old girl in the Netherlands (*2*). Invasive infections of *H. influenzae* are most commonly due to the encapsulated type b strain. Because of the recent occurrence of ampicillin resistant type b isolates, chloramphenicol has been recommended by some for initial therapy in documented or suspected severe *H. influenzae* type b infections (*3*).

Nontypable *H. influenzae* organisms are nonencapsulated and are frequently isolated from the respiratory tracts of patients with chronic respiratory infections. The prolonged exposure to chloramphenicol in a patient likely to carry nontypable *H. influenzae* may have contributed to the emergence of this resistant organism.

The shift in ampicillin sensitivity in this patient may have been due to the loss of a plasmid resistance factor.

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1. Barrett FF, Taber LH, Morris CR, et al: A 12 year review of the antibiotic management of *Hemophilus influenzae* meningitis: Comparison of ampicillin and conventional therapy including chloramphenicol. J Pediatr 81:370-377, 1972
2. Manten A, Van Klingeren B, Dessens-Kroon M: Chloramphenicol resistance in *Hemophilus influenzae*. Lancet 1:702, 1976
3. American Academy of Pediatrics, Committee on Infectious Disease: Ampicillin resistant strains of *Hemophilus influenzae* type b. Pediatrics 55:145, 1975

Current Trends

Explosive Azide Hazard

The National Institute for Occupational Safety and Health (NIOSH) has issued an alert that an explosive hazard may exist in hospital and clinical laboratory plumbing systems due to sodium azide formulated into diluents used in conjunction with automatic blood cell counters. These counters are found in more than 15,000 hospital and clinical laboratories in the United States. Decontamination recommendations have already been distributed by NIOSH to most of these laboratories.

NIOSH has recently learned of violent sodium azide-related explosions associated with automatic blood cell counters at a number of hospitals in the United States and Canada. NIOSH is also aware of a violent azide explosion occurring while a constant temperature water bath in which sodium azide had been used as a preservative was being repaired. These explosions have the propensity to propel metallic fragments over a wide area and the potential for causing serious injury to exposed workers and others in the vicinity. When the hazard was substantiated, Coulter Electronics, Inc., the major supplier of automatic blood cell counters to U. S. laboratories, introduced an azide-free hematology reagent system.

Sodium azide is a common preservative in many *in vitro* diagnostic products and is found in concentrations up to 0.1% in diluents used with automatic blood cell counters. After the blood count procedure is completed, the waste (containing azide) is commonly discharged into a drain, thus bathing the drain pipeline with solutions of sodium azide. Over a period of time, the azide reacts with copper, lead, brass, or solder in the plumbing system to form an accumulation of lead and/or copper azide. Lead azide is a more sensitive primary explosive than nitroglycerine and a more effective detonating agent than mercury fulminate; in comparison with lead azide, copper azide is even more explosive and too sensitive to be used commercially.

Future accumulation of lead and copper azides in plumbing systems can be retarded by thoroughly flushing any drain known to receive azides with large amounts of water several times a day. The use of copper-free and lead-free lines between the point of discharge of azide and the nearest pipe in which there is a good stream of water, or the use of azide-free reagents, may prevent future accumulation of explosive azides in plumbing. However, these measures will not decontaminate plumbing already containing explosive azides.

Laboratory maintenance workers, especially plumbers, should be alerted to the azide hazard so that proper precautions can be taken. Violent explosions have resulted when plumbers have attempted to penetrate blocked azide-contaminated drainage systems with a flexible metal probe (snake) or to cut or saw azide-contaminated drain lines.

For further information about this problem and suggested methods for decontaminating plumbing systems, contact the Technical Evaluation and Review Branch, Office of Extramural Coordination and Special Projects, NIOSH, Rockville, Md. 20852. NIOSH would appreciate being advised in detail of any azide-related explosion or of comments about the effectiveness of the decontamination procedures.

Reported by Technical Evaluation and Review Br, Office of Extramural Coordination and Special Projects, NIOSH, and Office of Biosafety, Office of the Center Director, CDC.

Erratum, Vol. 25, No. 32

p 245 In the article, "Atypical Measles—California, 1974-1975," the total number of patients in Table 3 should be 56, not 52 as indicated.

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