

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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Epidemiologic Notes and Reports

Tuberculosis — Maine

A private physician called the Maine Bureau of Health on December 9, 1976, to report a case of tuberculosis in a 20-year-old man. The patient had a positive tuberculin skin test, bilateral upper lobe infiltrates on chest X-ray, and sputum cultures which grew *Mycobacterium tuberculosis*. He had experienced a weight loss of over 20 pounds, had a persistent cough, and had fever for about 6 months. The patient had been identified in February 1976, as a household contact of an elderly man with tuberculosis but he had refused to be examined at that time.

The patient lived and worked on a large egg farm in a small community of 2,246 people. The approximately 700 employees on the egg farm not only worked together, but also lived in close proximity to one another and frequently saw each other socially. The patient lived transiently in about 6 different households in the community during the year before his diagnosis. Investigation identified 134 contacts of this patient — including persons residing in households in which he had lived, persons seen daily at work, and social contacts seen twice or more per week. The mean age of contacts was 27.1 years, and the mean age of employee non-contacts was 28.8 years.

All the contacts were skin tested. In addition, skin testing was offered to the rest of the employees at the chicken farm; approximately 98% were tested. Fifteen of 596 employees who were not considered contacts had a positive test (2.5%); in this group were 243 part-time teenage employees, 1 of whom was positive (0.4%). Among contacts, 34 of 134 (25.4%) had positive skin tests. Three cases of tuberculosis were found in the contacts. The infected persons are either receiving isoniazid (in approximately 30 cases) or being followed.

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Editorial Note: Whether the index patient had contracted tuberculosis from the elderly man with whom he lived in February 1976 or whether he had transmitted it to that man cannot be determined.

Skin test positivity in this small community was highly correlated with being a contact of the index patient. The test results from non-contact co-workers at the farm indicate a very low background level of mycobacterial infection in the community. It appears that the patient was an effective transmitter of tubercle bacilli, even though he did not have cavitory disease or a positive microscopic examination for acid-fast bacilli — conditions frequently associated with a high level of infectivity. The facts that he had been sick and coughing for a long time and that frequent opportunities for exposure resulted from his mobility and from the social and work conditions in this community combined to produce an unusually large number of contacts and a high level of infection among them.

Since almost every person with tuberculosis has at some time been a contact of another person with tuberculosis, the identification, examination, and proper management of contacts of newly diagnosed cases is one of the highest priority activities in tuberculosis control (1). If a vigorous effort had been made to get this patient examined at the time of his exposure to another case in February 1976, and if he had received preventive treatment (2), this episode might not have occurred.

References

1. American Thoracic Society: Guidelines for the investigation and management of tuberculosis contacts. *Am Rev Respir Dis* 114:459-463, 1976
2. MMWR 24(8):71-78, 1975

Drug-Resistant *Salmonella agona* — New York

An outbreak of multiple drug-resistant *Salmonella agona* was recently reported in New York; the organism apparently originated in South America.

A 6-week-old male infant was admitted to a New York City hospital on September 8, 1976, because of pneumonia, sepsis, and shock. Born in Columbia, South America, the patient was the second of male twins, who were placed in an orphanage for adoption when they were 3 days old.

While at the orphanage, the patient was diagnosed as having pneumonia and was treated with penicillin and kanamycin. The twins were adopted by a New York City couple who brought them to the United States on September 5. The patient soon developed a runny nose and had several greenish diarrheal stools for which he was brought to the emergency room. Because he was thought to be septic, the child was admitted and therapy was begun with oxacillin and genta-

micin; his condition improved during the next 2 days. (The patient's twin had also had a runny nose and diarrhea, but he did not require therapy or hospitalization.)

Subsequently, group B *Salmonella* organisms, later identified as *S. agona*, were recovered from both twins' stool cultures that had been collected in the emergency room. Because of this finding, oxacillin and gentamicin were discontinued, and ampicillin was begun. The next day antibiotic susceptibilities (Kirby-Bauer) revealed the 2 isolates to be resistant to ampicillin, carbenicillin, chloramphenicol, colistin, kanamycin, sulfasoxazole, tetracycline, and tobramycin; intermediate to cephalothin and gentamicin; and sensitive to nitrofurans and nalidixic acid. Ampicillin was discontinued and cephalothin and gentamicin begun. Simultaneously, urine and blood cultures collected from the patient on the day of admission yielded *S. agona*. Two-tube broth dilution susceptibility tests revealed both blood and stool isolates were resistant to ampicillin, carbenicillin, cephalothin, chloramphenicol, colistin, gentamicin, tetracycline, and tobramycin. When tested by the agar disc diffusion method, the organisms were sensitive to trimethoprim-sulfamethoxazole; this combination drug was then added to the therapeutic regimen. Follow-up blood and urine cultures from the patient were negative. Stool cultures collected 21 days after admission still contained *S. agona* organisms, which when re-tested were also found to be resistant to trimethoprim-sulfamethoxazole as well as to the previously tested antibiotics.

The index patient continued to improve and, all antimicrobial drugs were discontinued 36 hours before discharge on the 32nd hospital day. He is presently being followed by his private pediatrician and is doing well.

Six months after the original isolates were recovered, stool cultures of both twins were still positive for *S. agona*. Each of 3 isolates obtained from cultures at that time carried a different complement or resistance markers, suggesting that 2 or more plasmids were involved.

S. agona with the identical antibiogram was recovered on 2 subsequent occasions within 1 month following the above admission: once from a stool culture of a patient on the same pediatric ward, and once from a single culture of a finger wound from a patient on a separate pediatric ward 1 floor below. Before the positive cultures were obtained, both patients had been receiving antibiotics to which the multiple drug-resistant *S. agona* was resistant. Prior to the admission of the index patient, the hospital laboratory had not isolated drug resistant *S. agona*.

Reported by BA Hanna, PhD, J Larsen, MD, L Kasen, MD, S Uretsky, MD, EJ Bottone, PhD, and WH Kurtz, PhD, Departments of Microbiology and Pediatrics, The Mount Sinai Hospital, New York City; JS Marr, MD, Director, Bur of Preventable Diseases, New York City, and the Enteric Diseases Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: Until 1969, *S. agona* was rarely isolated in humans; since that time, however, it has emerged worldwide, as one of the leading causes of salmonellosis (7). In the
(Continued on page 135)

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

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

DISEASE	15th WEEK ENDING		MEDIAN 1972-1976	CUMULATIVE, FIRST 15 WEEKS		
	April 16, 1977	April 17, 1976		April 16, 1977	April 17, 1976	MEDIAN 1972-1976
Asplenic meningitis	26	33	34	520	523	523
Brucellosis	1	—	3	47	68	34
Chickenpox	5,986	5,833	—	89,551	84,245	—
Diphtheria	1	—	4	22	88	69
Encephalitis	Primary	8	13	173	227	234
	Post-Infectious	4	8	37	80	74
Hepatitis, Viral	Type B	314	289	199	4,542	4,169
	Type A	561	581	861	9,541	10,273
	Type unspecified	150	219	—	2,754	2,584
Malaria	11	5	5	98	90	75
Measles (rubeola)	2,246	1,661	1,135	22,788	14,913	11,997
Meningococcal infections, total		36	46	34	643	584
	Civilian	36	46	34	638	580
	Military	—	—	1	5	4
Mumps	469	1,276	1,757	8,763	19,045	25,200
Pertussis	10	13	—	183	314	—
Rubella (German measles)	800	391	781	8,818	5,389	5,389
Tetanus	1	1	1	11	9	14
Tuberculosis	551	644	—	8,371	9,136	—
Tularemia	3	1	—	19	29	27
Typhoid fever	11	6	5	104	96	91
Typhus, tick-borne (Rky. Mt. spotted fever)	1	5	3	26	14	16
Venereal Diseases:						
Gonorrhea	Civilian	17,462	17,805	—	264,834	277,309
	Military	535	512	—	7,528	8,341
Syphilis, primary and secondary	Civilian	418	482	—	6,313	7,480
	Military	6	9	—	91	115
Rabies in animals	48	61	83	695	667	844

Table II. Notifiable Diseases of Low Frequency: United States

	CUM.		CUM.
Anthrax:	—	Poliomyelitis, total:	2
Botulism:	19	Paralytic:	2
Congenital rubella syndrome:	2	Pittacosis: Wisc. 1, Fla. 1, Calif. 1	17
Leprosy: La. 1	33	Rabies in man:	—
Leptospirosis: Hawaii 1	13	Trichinosis:	32
Plague:	1	Typhus, murine: Tex. 2	13

Table III
Cases of Specified Notifiable Diseases: United States
Weeks Ending April 16, 1977 and April 17, 1976 - 15th Week

AREA REPORTING	ASEPTIC MENIN- GITIS	BRUCEL- LOSIS	CHICKEN- POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS, VIRAL			MALARIA	
						Primary: Arthropod- borne and Unspecified		Post In- fectious	Type B	Type A	Type Unspecified		
						1977	1976						
UNITED STATES	26	1	5,966	1	22	8	13	4	314	561	150	11	98
NEW ENGLAND	-	-	1,099	-	-	-	-	-	16	18	14	1	5
Maine	-	-	4	-	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	20	-	-	-	-	-	1	2	-	-	-
Vermont	-	-	5	-	-	-	-	-	-	2	-	1	1
Massachusetts	-	-	425	-	-	-	-	-	1	1	12	-	2
Rhode Island	-	-	217	-	-	-	-	-	2	4	-	-	1
Connecticut	-	-	428	-	-	-	-	-	12	9	2	-	1
MIDDLE ATLANTIC	3	-	332	-	5	1	2	2	59	56	19	2	23
Upstate New York	2	-	160	-	-	1	1	2	5	14	5	-	6
New York City	-	-	155	-	5	-	-	-	19	9	1	2	13
New Jersey	-	-	NN	-	-	-	1	-	24	18	10	-	3
Pennsylvania	1	-	13	-	-	-	-	-	11	15	3	-	1
EAST NORTH CENTRAL	1	-	2,542	-	-	2	4	1	44	116	9	1	6
Ohio*	-	-	210	-	-	1	3	1	15	33	-	1	4
Indiana	-	-	129	-	-	-	-	-	1	5	5	-	-
Illinois	-	-	579	-	-	-	-	-	8	33	-	-	1
Michigan	-	-	1,116	-	-	1	-	-	14	38	4	-	1
Wisconsin	1	-	508	-	-	-	1	-	6	7	-	-	-
WEST NORTH CENTRAL	4	-	626	-	1	1	1	-	17	22	11	1	10
Minnesota	-	-	4	-	-	-	-	-	3	3	-	-	4
Iowa	-	-	158	-	-	-	-	-	1	5	-	-	-
Missouri*	4	-	14	-	1	-	1	-	8	3	10	-	4
North Dakota*	-	-	12	-	-	-	-	-	-	1	-	-	-
South Dakota*	-	-	39	-	-	-	-	-	-	3	1	1	1
Nebraska*	-	-	110	-	-	1	-	-	-	-	-	-	-
Kansas	-	-	249	-	-	-	-	-	5	7	-	-	1
SOUTH ATLANTIC	2	1	520	-	-	-	1	1	23	46	23	2	18
Delaware	-	-	19	-	-	-	-	-	2	2	-	-	-
Maryland	-	-	6	-	-	-	-	-	7	2	1	1	6
District of Columbia	-	-	-	-	-	-	-	-	1	1	-	-	1
Virginia	-	-	27	-	-	-	-	-	1	6	3	-	3
West Virginia*	-	-	105	-	-	-	-	-	1	4	-	-	-
North Carolina	-	1	NN	-	-	-	-	-	1	3	3	-	4
South Carolina	-	-	10	-	-	-	-	-	-	4	3	-	-
Georgia	-	-	-	-	-	-	-	-	1	3	-	-	1
Florida*	2	-	353	-	-	-	1	1	9	21	13	1	3
EAST SOUTH CENTRAL	-	-	48	-	-	1	2	-	16	31	7	-	3
Kentucky*	-	-	39	-	-	-	-	-	-	10	4	-	3
Tennessee	-	-	NN	-	-	1	2	-	16	14	3	-	-
Alabama	-	-	3	-	-	-	-	-	-	-	-	-	-
Mississippi	-	-	6	-	-	-	-	-	-	7	-	-	-
WEST SOUTH CENTRAL	1	-	232	-	1	-	1	-	9	41	13	2	6
Arkansas*	-	-	3	-	-	-	-	-	-	1	1	-	-
Louisiana	1	-	NN	-	-	-	1	-	1	15	6	-	-
Oklahoma	NA	NA	NA	NA	-	NA	-	-	-	NA	NA	NA	-
Texas	-	-	229	-	1	-	-	-	8	25	6	2	6
MOUNTAIN	1	-	171	1	1	-	-	-	26	60	8	-	5
Montana	-	-	31	-	-	-	-	-	1	1	1	-	-
Idaho*	-	-	21	-	-	-	-	-	1	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-	2	-	-	-
Colorado	-	-	116	-	-	-	-	-	8	12	2	-	4
New Mexico	1	-	-	-	-	-	-	-	3	16	1	-	-
Arizona*	-	-	NN	1	1	-	-	-	9	19	4	-	1
Utah	-	-	2	-	-	-	-	-	4	10	-	-	-
Nevada	-	-	1	-	-	-	-	-	-	-	-	-	-
PACIFIC	14	-	416	-	14	3	2	-	104	171	46	2	22
Washington	2	-	370	-	13	-	-	-	3	5	3	-	-
Oregon	-	-	2	-	-	2	-	-	5	26	3	-	1
California*	11	-	-	-	-	1	2	-	96	139	40	2	17
Alaska	-	-	18	-	1	-	-	-	-	-	-	-	-
Hawaii	1	-	26	-	-	-	-	-	-	1	-	-	4
Guam*	NA	NA	NA	NA	-	NA	-	-	-	NA	NA	NA	-
Puerto Rico	NA	NA	NA	NA	-	NA	-	-	-	NA	NA	NA	-
Virgin Islands	-	-	-	-	-	-	-	-	-	-	-	-	-

NA: Not available

NN: Not notifiable

*Delayed reports: Aseptic meningitis: S. Dak. add 1 (1976), Mo. delete 2, Idaho add 1 (1977); Brucellosis: Mo. delete 1 (1977); Chickenpox: N. Dak. add 14 (1976), Mo. delete 1, W. Va. add 1, Fla. delete 1, Calif. add 78, Guam add 1 (1977); Hepatitis B: N. Dak. delete 4 (1976), Ohio delete 1, Mo. delete 2, Fla. add 1, Guam add 1 (1977); Hepatitis A: N. Dak. add 5, S. Dak. add 15, Ky. delete 1 (1976), Nebr. delete 1, W. Va. delete 3, Fla. delete 2, Ark. add 2, Ariz. delete 1 (1977); Hepatitis unsp.: N. Dak. delete 1, S. Dak. delete 7, Ky. add 2 (1976), Nebr. add 1, Ark. add 1 (1977); Malaria: Mo. delete 1 (1977).

Table III-Continued
Cases of Specified Notifiable Diseases: United States
Weeks Ending April 16, 1977 and April 17, 1976 - 15th Week

REPORTING AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1977	CUMULATIVE		1977	CUMULATIVE		1977	CUM. 1977	1977	1977	CUM. 1977	CUM. 1977
		1977	1976		1977	1976						
UNITED STATES	2,246	22,788	14,913	36	643	585	469	8,763	10	800	8,818	11
NEW ENGLAND	117	1,071	134	-	32	28	20	426	-	62	390	-
Maine	-	3	3	-	2	-	1	30	-	-	13	-
New Hampshire*	13	244	3	-	3	2	-	65	-	22	83	-
Vermont	2	223	-	-	3	1	-	5	-	14	50	-
Massachusetts*	64	303	2	-	8	8	5	73	-	14	154	-
Rhode Island	-	6	14	-	-	4	1	34	-	-	13	-
Connecticut	38	292	112	-	16	13	13	219	-	12	77	-
MIDDLE ATLANTIC	343	2,942	3,172	3	92	74	27	545	2	150	2,355	-
Upstate New York	133	885	1,123	1	27	28	8	94	1	99	1,316	-
New York City	14	123	133	1	17	18	11	219	1	25	136	-
New Jersey*	-	72	299	-	23	11	4	137	-	8	767	-
Pennsylvania	196	1,862	1,617	1	25	17	4	95	-	18	136	-
EAST NORTH CENTRAL ..	485	5,399	6,052	10	65	72	214	3,104	2	112	2,014	-
Ohio	40	318	181	3	28	25	15	452	-	30	529	-
Indiana	269	2,655	1,150	4	7	4	14	174	-	27	621	-
Illinois	47	533	618	1	8	8	33	358	-	24	150	-
Michigan*	41	580	2,182	2	16	29	67	1,059	2	20	500	-
Wisconsin	88	1,313	1,921	-	6	6	85	1,061	-	11	214	-
WEST NORTH CENTRAL ..	285	4,157	287	2	39	44	104	2,142	-	35	270	2
Minnesota	115	692	100	2	17	9	-	3	-	1	9	-
Iowa	135	2,420	8	-	2	7	20	1,017	-	3	99	-
Missouri*	27	392	6	-	14	11	12	443	-	5	21	1
North Dakota	-	4	1	-	1	1	-	7	-	-	-	-
South Dakota*	-	10	1	-	4	2	25	50	-	-	-	-
Nebraska	-	85	36	-	-	3	2	19	-	-	1	-
Kansas	8	554	135	-	1	11	45	603	-	26	140	1
SOUTH ATLANTIC	116	1,304	960	9	142	120	24	344	2	153	823	4
Delaware	1	19	106	1	2	2	5	66	-	1	14	-
Maryland	-	122	414	1	10	9	1	22	-	-	-	-
District of Columbia ..	-	1	2	-	-	2	-	2	-	-	-	-
Virginia*	74	750	130	2	9	12	-	41	1	51	189	1
West Virginia	6	55	98	-	8	4	9	89	-	9	53	-
North Carolina	6	24	-	2	37	20	1	15	-	62	327	-
South Carolina	19	112	1	-	12	19	-	9	-	-	152	-
Georgia	2	206	-	3	28	11	-	8	-	4	35	-
Florida	8	15	209	-	36	41	8	92	1	26	53	3
EAST SOUTH CENTRAL ..	89	528	354	7	72	39	17	453	-	166	1,372	1
Kentucky	10	121	335	-	17	5	8	66	-	3	31	1
Tennessee	63	339	5	1	19	18	6	252	-	143	1,301	-
Alabama	15	55	-	2	23	11	-	123	-	19	37	-
Mississippi	1	13	14	4	13	5	3	12	-	1	3	-
WEST SOUTH CENTRAL ..	136	1,237	344	1	114	92	20	732	1	45	452	3
Arkansas	-	1	-	1	7	3	3	8	-	1	1	-
Louisiana	1	56	26	-	42	14	1	27	-	1	9	1
Oklahoma	NA	41	204	-	3	15	NA	283	NA	NA	20	-
Texas*	135	1,139	114	-	62	60	16	414	-	44	422	2
MOUNTAIN	145	1,329	2,881	2	17	22	10	360	-	6	243	-
Montana	101	798	106	-	2	2	-	2	-	-	7	-
Idaho	-	28	1,147	-	1	1	5	70	-	-	-	-
Wyoming	-	1	-	1	1	-	-	-	-	-	1	-
Colorado	29	347	126	-	1	9	2	158	-	5	190	-
New Mexico	1	6	8	-	5	1	3	77	-	-	1	-
Arizona	3	90	200	1	6	5	-	-	-	-	-	-
Utah	-	5	1,277	-	-	4	-	52	-	1	41	-
Nevada	11	54	17	-	1	-	-	1	-	-	3	-
PACIFIC	530	4,821	729	2	70	94	33	657	3	71	899	1
Washington	12	257	75	-	11	17	9	143	1	3	230	-
Oregon	30	109	13	-	6	8	7	135	-	8	56	-
California	488	4,401	639	2	43	63	17	354	2	59	607	1
Alaska	-	48	-	-	9	4	-	17	-	-	-	-
Hawaii	-	6	2	-	1	2	-	8	-	1	6	-
Guam	NA	3	6	-	-	1	NA	-	NA	NA	3	-
Puerto Rico	NA	270	70	-	-	2	NA	215	NA	NA	11	3
Virgin Islands	-	6	2	-	-	-	3	135	-	-	-	-

NA: Not available

*Delayed reports: Measles: N. Hamp. add 53, Mass. delete 3, Mo. add 7, Va. delete 1, Tex. delete 2 (1977); Men. Inf.: Mo. add 7 (1977); Mumps: Mo. delete 10 (1977); Pertussis: Mich. add 2, S. Dak. add 2 (1976), Mo. delete 1 (1977); Rubella: N. J. delete 4, Mo. add 1 (1977).

Table III-Continued
Cases of Specified Notifiable Diseases: United States
Weeks Ending April 16, 1977 and April 17, 1976 - 15th Week

REPORTING AREA	TUBERCULOSIS		TULA- REMIA	TYPHOID FEVER		TYPHUS-FEVER TICK-BORNE (RMSF)		VENEREAL DISEASES (Civilian Cases Only)						RABIES IN ANIMALS
	1977	CUM. 1977	CUM. 1977	1977	CUM. 1977	1977	CUM. 1977	GONORRHEA		SYPHILIS (Pri. & Sec.)		CUM. 1977		
								CUMULATIVE		1977	CUMULATIVE			
								1977	1976		1977		1976	
UNITED STATES	551	8,371	19	11	104	1	26	17,462	264,834	277,742	418	6,313	7,470	695
NEW ENGLAND	19	304	1	-	5	-	-	429	6,972	7,631	27	232	214	8
Maine	3	25	-	-	-	-	-	24	576	640	-	7	8	8
New Hampshire	-	8	-	-	-	-	-	31	271	194	1	1	3	-
Vermont	2	14	-	-	-	-	-	12	173	156	-	3	2	-
Massachusetts	4	157	1	-	3	-	-	195	3,049	3,624	22	173	155	-
Rhode Island	5	20	-	-	1	-	-	48	512	517	-	2	9	-
Connecticut	5	80	-	-	1	-	-	119	2,391	2,500	4	46	37	-
MIDDLE ATLANTIC	108	1,320	-	1	21	-	2	2,015	29,617	29,961	70	909	1,287	8
Upstate New York	34	210	-	-	3	-	2	427	4,431	4,707	9	80	80	7
New York City	47	457	-	-	8	-	-	712	13,128	12,852	42	567	830	-
New Jersey	16	323	-	1	8	-	-	341	4,565	5,073	10	123	181	1
Pennsylvania	11	330	-	-	2	-	-	535	7,493	7,329	9	139	196	-
EAST NORTH CENTRAL	90	1,368	2	3	13	-	-	2,349	39,144	44,554	29	716	696	21
Ohio*	-	217	1	3	5	-	-	657	9,685	11,217	4	179	162	-
Indiana	13	157	-	-	-	-	-	158	3,449	4,029	8	48	37	1
Illinois	36	512	-	-	1	-	-	646	13,266	16,030	13	384	371	4
Michigan*	36	423	-	-	7	-	-	598	8,927	9,094	3	72	88	2
Wisconsin*	5	59	1	-	-	-	-	290	3,817	4,184	1	33	38	14
WEST NORTH CENTRAL	27	270	3	2	8	-	3	830	13,831	14,006	11	143	139	152
Minnesota	6	57	-	-	1	-	-	196	2,462	2,700	5	47	32	54
Iowa	1	26	-	-	-	-	-	99	1,666	1,786	1	11	17	21
Missouri*	13	105	2	1	4	-	2	355	5,862	5,439	4	50	53	14
North Dakota	1	9	-	-	-	-	-	12	226	216	-	-	-	19
South Dakota	-	13	1	-	-	-	-	28	369	408	-	1	2	32
Nebraska	1	11	-	-	-	-	-	54	1,103	1,178	1	16	12	-
Kansas*	5	49	-	1	3	-	1	86	2,143	2,279	-	18	23	12
SOUTH ATLANTIC	112	1,932	6	-	15	1	11	4,525	63,308	67,405	127	1,795	2,183	80
Delaware*	-	15	-	-	-	-	-	58	773	948	-	12	17	-
Maryland*	21	288	-	-	-	-	-	550	7,991	9,269	5	118	196	-
District of Columbia	5	92	-	-	-	-	-	404	3,743	4,591	15	189	175	-
Virginia	16	209	-	-	5	-	2	439	6,648	7,263	16	179	190	2
West Virginia	1	79	-	-	2	-	-	60	862	849	-	1	14	3
North Carolina*	13	339	1	-	1	1	7	661	9,625	9,938	30	267	453	2
South Carolina	7	178	2	-	-	-	-	255	5,760	6,289	2	80	121	-
Georgia*	9	218	3	-	-	-	2	1,294	12,480	12,612	21	326	249	59
Florida	40	514	-	-	7	-	-	804	15,426	15,646	38	623	768	14
EAST SOUTH CENTRAL	58	747	-	-	1	-	5	1,571	22,753	25,115	6	201	308	27
Kentucky*	20	177	-	-	-	-	1	127	3,103	3,252	1	21	48	10
Tennessee	21	251	-	-	-	-	3	761	9,118	9,755	3	58	128	12
Alabama	9	201	-	-	1	-	1	274	6,205	7,110	2	40	58	5
Mississippi	8	118	-	-	-	-	-	409	4,327	4,998	-	82	74	-
WEST SOUTH CENTRAL	61	931	3	-	1	-	5	1,925	33,982	38,063	67	850	856	284
Arkansas*	5	97	-	-	-	-	-	72	2,633	3,462	-	18	26	27
Louisiana	11	182	-	-	-	-	-	684	4,887	5,486	29	176	182	2
Oklahoma	NA	85	1	NA	-	NA	1	NA	2,906	3,542	NA	19	38	105
Texas*	45	567	2	-	1	-	4	1,169	23,556	25,573	38	637	610	150
MOUNTAIN	15	221	3	-	8	-	-	731	11,014	10,750	10	138	202	16
Montana	1	8	1	-	-	-	-	28	552	549	-	-	3	10
Idaho	2	15	-	-	-	-	-	46	543	565	-	3	9	-
Wyoming	-	5	-	-	-	-	-	3	303	229	-	9	5	-
Colorado	-	33	2	-	6	-	-	180	2,794	2,693	4	38	55	-
New Mexico	2	37	-	-	-	-	-	102	1,619	2,185	-	24	58	-
Arizona*	7	105	-	-	1	-	-	219	3,165	3,035	3	55	57	6
Utah	-	6	-	-	1	-	-	58	642	630	-	4	2	-
Nevada*	3	12	-	-	-	-	-	95	1,396	864	3	5	13	-
PACIFIC	61	1,278	1	5	32	-	-	3,087	44,213	40,257	71	1,329	1,585	99
Washington	NA	60	-	1	1	-	-	199	3,256	3,426	NA	49	43	-
Oregon	1	52	-	-	2	-	-	208	3,217	2,967	-	43	49	-
California	46	963	1	4	28	-	-	2,522	35,387	31,987	69	1,218	1,465	90
Alaska	-	16	-	-	-	-	-	64	1,405	1,090	-	6	2	9
Hawaii	14	187	-	-	1	-	-	94	948	787	2	13	26	-
Guam*	NA	16	-	NA	1	NA	-	NA	67	134	NA	1	1	-
Puerto Rico	NA	91	-	NA	2	NA	-	NA	841	766	NA	169	162	10
Virgin Islands	-	1	-	-	-	-	-	5	44	80	-	1	26	-

NA: Not available

Delayed reports: TB: Ohio delete 3, Md. delete 2, Ky. add 10 (1976), Mich. delete 3, Wisc. add 2, Mo. add 7, Kans. delete 1, Del. add 1, N. C. delete 3, Guam add 1 (1977); Tularemia: Ark. add 1 (1977); RMSF: Tex. add 1 (1976), Mo. delete 1, (1977); GC: Nev. add 1089 (1976), Ariz. delete 117, Guam add 6 (1977); Syphilis: Nev. add 8 (1976), Wisc. delete 5, Ariz. delete 7 (1977), An. rabies: Ga. delete 4 (1977).

Table IV
Deaths in 121 United States Cities*
Week Ending April 16, 1977 - 15th Week

REPORTING AREA	ALL CAUSES					Pneumonia and Influenza ALL AGES	REPORTING AREA	ALL CAUSES					Pneumonia and Influenza ALL AGES
	ALL AGES	65 Years and Over	45-64 Years	25-44 Years	Under 1 Year			ALL AGES	65 Years and Over	45-64 Years	25-44 Years	Under 1 Year	
NEW ENGLAND	650	432	152	33	17	33	SOUTH ATLANTIC ...	1,163	665	336	84	31	55
Boston, Mass.	168	110	38	8	7	9	Atlanta, Ga.	137	75	44	9	2	5
Bridgeport, Conn.	38	24	9	4	-	1	Baltimore, Md.	203	103	66	22	2	4
Cambridge, Mass.	37	29	6	2	-	2	Charlotte, N. C.	55	34	16	3	1	4
Fall River, Mass.	17	12	4	1	-	-	Jacksonville, Fla.	94	47	29	8	2	2
Hartford, Conn.	60	35	17	4	2	4	Miami, Fla.	108	68	28	6	4	4
Lowell, Mass.	31	17	10	2	-	2	Norfolk, Va.	53	26	12	4	5	2
Lynn, Mass.	17	14	3	-	-	-	Richmond, Va.	73	42	22	7	1	6
New Bedford, Mass.	25	21	3	-	-	3	Savannah, Ga.	42	27	9	2	2	5
New Haven, Conn.	67	42	15	7	3	1	St. Petersburg, Fla.	86	68	17	1	-	7
Providence, R.I.	66	41	19	2	4	5	Tampa, Fla.	61	35	21	2	2	4
Somerville, Mass.	3	1	2	-	-	-	Washington, D. C.	198	109	58	16	7	11
Springfield, Mass.	36	27	5	1	1	2	Wilmington, Del.	53	31	14	4	3	1
Waterbury, Conn.	31	25	6	-	-	2	EAST SOUTH CENTRAL	726	438	175	42	39	50
Worcester, Mass.	54	34	15	2	-	2	Birmingham, Ala.	135	79	31	10	9	12
MIDDLE ATLANTIC ...	2,982	1,855	746	191	100	136	Chattanooga, Tenn.	64	38	20	3	3	6
Albany, N. Y.	55	38	12	1	4	-	Knoxville, Tenn.	61	46	11	1	2	3
Allentown, Pa.	27	17	8	1	1	1	Louisville, Ky.	93	58	17	11	5	8
Buffalo, N. Y.	128	86	25	5	5	9	Memphis, Tenn.	183	103	47	9	11	8
Camden, N. J.	41	22	10	4	2	1	Mobile, Ala.	62	34	18	5	2	4
Elizabeth, N. J.	32	23	7	-	-	2	Montgomery, Ala.	38	23	9	-	3	4
Erie, Pa.	34	22	9	2	-	2	Nashville, Tenn.	90	57	22	3	4	5
Jersey City, N. J.	68	46	13	3	5	1	WEST SOUTH CENTRAL	1,241	693	365	85	45	26
Newark, N. J.	109	43	35	16	9	5	Austin, Tex.	46	29	15	2	-	-
New York City, N. Y.	1,501	940	377	98	44	59	Baton Rouge, La.	38	17	14	2	1	1
Paterson, N. J.	43	23	11	1	4	2	Corpus Christi, Tex.	39	23	6	4	3	-
Philadelphia, Pa.	308	168	93	27	12	20	Dallas, Tex.	199	109	64	15	5	5
Pittsburgh, Pa.	248	162	63	9	7	15	El Paso, Tex.	46	28	14	3	-	2
Reading, Pa.	34	29	4	-	-	2	Fort Worth, Tex.	88	54	32	-	2	3
Rochester, N. Y.	97	69	18	3	5	10	Houston, Tex.	310	161	90	32	7	5
Schenectady, N. Y.	19	15	2	2	-	-	Little Rock, Ark.	65	38	17	2	8	2
Scranton, Pa.	38	25	10	2	-	1	New Orleans, La.	120	59	38	11	7	-
Syracuse, N. Y.	81	52	22	4	1	-	San Antonio, Tex.	151	85	46	7	5	4
Trenton, N. J.	58	34	12	8	1	4	Shreveport, La.	53	33	13	2	4	-
Utica, N. Y.	25	16	7	2	-	-	Tulsa, Okla.	86	57	16	5	3	4
Yonkers, N. Y.	36	25	8	3	-	2	MOUNTAIN	613	362	153	41	23	27
EAST NORTH CENTRAL	2,367	1,404	634	153	95	71	Albuquerque, N. Mex.	95	47	25	10	4	5
Akron, Ohio	62	38	15	2	7	-	Colorado Springs, Colo.	34	21	8	-	5	5
Canton, Ohio	50	30	13	4	2	2	Denver, Colo.	111	66	28	7	5	3
Chicago, Ill.	514	295	140	52	15	16	Las Vegas, Nev.	25	12	8	3	1	3
Cincinnati, Ohio	153	86	49	4	12	4	Ogden, Utah	21	14	5	1	-	-
Cleveland, Ohio	213	113	65	9	12	4	Phoenix, Ariz.	172	102	46	10	-	3
Columbus, Ohio	131	68	37	15	5	4	Pueblo, Colo.	34	27	4	1	1	6
Dayton, Ohio	133	84	34	8	2	5	Salt Lake City, Utah ...	56	30	14	5	5	2
Detroit, Mich.	313	184	82	21	11	7	Tucson, Ariz.	65	43	15	4	2	-
Evansville, Ind.	47	31	13	1	1	2	PACIFIC	1,637	1,042	391	87	63	36
Fort Wayne, Ind.	50	36	3	6	1	3	Berkeley, Calif.	17	13	4	-	-	-
Gary, Ind.	26	16	8	1	1	2	Fresno, Calif.	64	42	14	3	3	2
Grand Rapids, Mich.	75	49	21	2	3	3	Glendale, Calif.	19	13	5	-	1	-
Indianapolis, Ind.	139	79	42	5	7	4	Honolulu, Hawaii	61	42	12	4	3	1
Madison, Wis.	29	19	4	4	1	3	Long Beach, Calif.	106	66	30	3	4	3
Milwaukee, Wis.	134	79	41	6	4	2	Los Angeles, Calif.	513	313	128	35	21	8
Peoria, Ill.	56	33	13	3	4	2	Oakland, Calif.	79	55	12	4	3	4
Rockford, Ill.	36	25	6	1	3	4	Pasadena, Calif.	27	20	3	-	2	-
South Bend, Ind.	42	28	11	1	-	2	Portland, Oreg.	133	75	32	8	13	-
Toledo, Ohio	112	71	27	7	3	2	Sacramento, Calif.	75	42	18	5	5	-
Youngstown, Ohio ...	52	40	10	1	1	-	San Diego, Calif.	150	92	38	11	3	4
WEST NORTH CENTRAL	731	470	162	43	29	27	San Francisco, Calif.	139	92	37	7	2	3
Des Moines, Iowa ...	56	37	13	1	2	1	San Jose, Calif.	56	31	19	3	-	2
Duluth, Minn.	22	19	2	1	-	1	Seattle, Wash.	126	89	25	3	3	3
Kansas City, Kans.	37	22	5	5	3	-	Spokane, Wash.	44	37	7	-	-	5
Kansas City, Mo.	128	86	24	5	9	5	Tacoma, Wash.	28	20	7	1	-	1
Lincoln, Nebr.	20	14	5	1	-	-	TOTAL	12,110	7,361	3,114	759	442	461
Minneapolis, Minn.	96	61	17	7	6	2	Expected Number	11,850	7,263	3,064	738	375	478
Omaha, Nebr.	102	63	25	5	4	-							
St. Louis, Mo.	150	88	44	11	3	7							
St. Paul, Minn.	62	44	13	3	2	2							
Wichita, Kans.	58	36	14	4	-	9							

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

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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.

Salmonella agona — Continued

United States the numbers of isolates of *S. agona* reported to CDC, by year, from 1969 to 1976 are: 0, 4, 44, 524, 864, 1,037, 1,333, and 1,461. In 1976, *S. agona* ranked third among the 10 most frequently reported serotypes from human sources.

The facility with which this organism was transmitted to 2 other patients in the same hospital in this outbreak, the finding of secondary cases in other outbreaks, as well as the rather dramatic increase in frequency of isolation of *S. agona* in this country all imply enhanced virulence. Though the factors underlying this virulence are uncertain at present, it may be speculated that this strain, as compared to

other *Salmonella* serotypes, may be transmitted by relatively low infectious inocula.

Antibiotic susceptibility tests of 759 *Salmonella* isolates, including 20 *S. agona* organisms referred to CDC in 1975, revealed that all 20 *S. agona* isolates were multiply sensitive compared to the 18.6% multiple drug resistance found in all other serotypes of *Salmonella* ($p < .01$). This finding emphasizes the unusual nature of multiple drug resistance in the *S. agona* organisms found in this outbreak.

Reference

1. Clark GM, Kaufmann AF, Gangarosa EJ, Thompson MA: *Salmonella agona*: Epidemiology of an international outbreak. *Lancet* ii:490-493, 1973

Follow-up on Botulism — Michigan

Forty-six cases of type B botulism were diagnosed in Michigan in the period March 31 — April 6, 1977, in persons who ate at a Mexican restaurant located in Pontiac, Michigan, from March 28 to March 31 (MMWR 26[14], 1977). All ill persons had neurologic symptoms and signs except 1. This individual had symptoms without objective neurologic abnormalities, but his stool had type B botulinal toxin identified by the Anaerobic Section at CDC. Forty-four patients were hospitalized. Thirty-three persons who were skin-test negative to trivalent (ABE) botulinal antitoxin of equine origin were treated with antitoxin. There were 2 immediate adverse, but mild reactions — watery eyes in 1 case and an erythematous non-urticarial rash in the other — which resolved when treated with an antihistamine. Eight persons were admitted to an intensive care unit at some time during their course, and 3 required intubation and respiratory assistance. There were no deaths.

All of the patients had consumed a hot sauce either by adding it to their food or by eating a nacho which contained the sauce. When the food histories of patients and asymptomatic hospital employees who ate at the restaurant during the outbreak period were compared, illness was found to be significantly associated with consumption of hot sauce ($p = .0002$). Type B botulinal toxin has been identified in the stools of 4 clinically confirmed cases and also

in 1 jar of the home-canned jalapeño peppers used in the preparation of hot sauce.

Reported by L Glass, MD, Bloomfield Hills; R Locey, MD, A Markowitz, MD, Oakland County Health Dept, Michigan; the staff of the following hospitals: St. Joseph Mercy Hospital, Pontiac; Crittenton Hospital, Rochester; William Beaumont Hospital, Royal Oak; Little Traverse Hospital, Petoskey; and St. Lawrence Hospital, Lansing, Michigan; and Medical College of Ohio Hospital, Toledo, Ohio; NS Hayner, MD, State Epidemiologist, Michigan State Dept of Public Health; TJ Halpin, MD, State Epidemiologist, Ohio State Dept of Health; Food and Drug Administration; Enterobacteriology Br, Bacteriology Div, Bur of Laboratories, Field Services Div, and Enteric Diseases Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: This is the second outbreak of botulism in the United States in 1977 caused by improperly home-canned jalapeño peppers. In this instance the peppers were home-canned in October 1976 because a shortage of these peppers was expected for the winter of 1976-77. It is not known whether this shortage was a factor in the previous outbreak.

In Michigan, as in most states, serving home-canned foods in a commercial establishment is a violation of state health regulations. If other commercial establishments attempt to avoid product shortages or rising prices by home-canning, more botulism cases may occur.

Current Trends

Influenza — Worldwide

United States: Pneumonia and influenza mortality has remained within the expected range for all regions of the United States. Influenza activity has now decreased to normal levels throughout the United States with the exception of 4 states which are still reporting outbreaks of influenza-like illness. A/Victoria/3/75-like isolates continue to be made from sporadic cases throughout the country.

Several localized outbreaks of influenza have recently been reported. An outbreak of influenza involving 33 of 101 patients and 10 of 40 staff members in 2 Dalton, Georgia, nursing homes occurred in the latter part of March. The influenza A strains isolated are A/Victoria/3/75. Two of the 3 deaths that occurred during the epidemic were possibly related to influenza. None of the residents was vaccinated against influenza A.

Six of 9 residents of a domicile for the chronically ill in Yonkers, New York, developed a respiratory illness beginning in the first or second week in April, and an additional patient died suddenly with no preceding acute illness. Three

of the 9 patients died; findings at autopsy were consistent with viral pneumonia in all 3. An H3N2 influenza A virus has been isolated from autopsy specimens from 2 of the patients. None of the patients had been vaccinated against influenza. Two isolates of A/Victoria/3/75 were also made from unrelated sporadic cases in the community during the week of the outbreak.

Reported by E McGhee, MD, Dalton, Georgia; M Deck, RN, Whitfield County (Ga) Health Dept; JE McCroan, PhD, State Epidemiologist, and D Smith, BA, Georgia Dept of Human Resources; I Spiegel, MD, Montefiore Hospital, New York City; J Goldman, MD, Westchester County (NY) Health Dept; and JS Marr, MD, Director, Bur of Preventable Diseases, New York City Health Dept; and the National Influenza Immunization Program, CDC.

Worldwide: Influenza virus similar to A/Victoria/3/75 has been isolated in association with influenza-like illness this winter in several countries. Turkey has reported sporadic cases of influenza since January, and Egypt reported local outbreaks in January and February. Belgium has identified

A/Victoria/3/75 as the virus associated with an outbreak reported there in February. Pakistan and Sri Lanka both reported an outbreak of influenza during February. Israel reported an outbreak of influenza-like illness in young adults at the end of February; 11 virus isolates were made. Sporadic cases of influenza-like illness during the month of March have yielded virus isolates in Ireland and Spain. Finland has reported influenza-like illness in several military units in southern Finland and scattered cases in the general population. Canada and Scotland have also reported viral isolates from scattered cases of influenza-like illness. In none of these countries have any isolates of virus strains

similar to A/Texas/1/77 been made, although Sri Lanka had 2 isolates of A/England/864/75.

Since mid-February, influenza-like illnesses have been reported from Rumania; 6 isolates similar to B/Hong Kong/5/72 have been made. In Sweden, where scattered cases of influenza-like illness have been reported, evidence of both influenza A (A/Victoria/3/75) and influenza B has been found.

Reported by the World Health Organization in the Weekly Epidemiological Record 52:114, 129, 1977; Communicable Diseases Scotland 77(10):iii, 1977; and by the Laboratory Centre for Disease Control in the Canada Diseases Weekly Report 3:56, 1977.

Primary and Secondary Syphilis – United States, February 1977

Reported cases of primary and secondary syphilis (provisional data) numbered 1,842 in February 1977, down 8.8% from the number reported in February 1976 (Table 1). This represents the 11th consecutive month in which a decline of cases has been reported. Also, early latent (less than

1-year duration) syphilis declined from 3,327 cases reported in February 1976 to 2,890 in February 1977, down 13.1%.

Reported by the Venereal Disease Control Div, Bur of State Services, CDC.

TABLE 1. Summary of reported primary and secondary syphilis cases by reporting area, February 1977 and February 1976 – Provisional Data

Reporting Area by HEW Region	February		Calendar Year Cumulative January–February		Reporting Area by HEW Region	February		Calendar Year Cumulative January–February		Reporting Area by HEW Region	February		Calendar Year Cumulative January–February	
	1977	1976	1977	1976		1977	1976	1977	1976		1977	1976	1977	1976
Connecticut	17	8	32	23	Illinois (Excl. Chicago)	17	11	38	25	Arizona	10	23	21	40
Delaware	4	7	9	13	Chicago	58	75	150	165	California (Excl. LA & SF)	144	196	305	385
District of Columbia	51	60	112	110	Indiana (Excl. Indianapolis)	10	3	11	12	Los Angeles*	121	146	226	374
Florida	187	202	377	475	Indiana*	4	6	8	8	San Francisco*	85	64	168	138
Georgia (Excl. Atlanta)	81	57	120	106	Michigan	23	25	45	49	Hawaii	3	7	6	11
Atlanta*	37	56	72	101	Minnesota	13	8	25	22	Nevada	1	4	2	10
Kentucky	7	24	13	32	Ohio	54	57	112	93	REGION IX TOTAL	384	440	728	958
Mississippi	31	29	48	44	Wisconsin	7	2	16	11	Alaska	3	1	4	1
North Carolina	18	145	177	239	REGION V TOTAL	186	187	405	385	Idaho	0	5	2	8
South Carolina	14	27	43	71	Arkansas	8	12	11	20	Oregon	13	14	29	28
Tennessee	14	32	36	73	Louisiana	49	50	103	98	Washington	11	12	21	27
REGION IV TOTAL	441	589	906	1,170	New Mexico	6	23	14	40	REGION X TOTAL	27	32	58	64
Alabama	9	17	19	29	Oklahoma	3	11	12	24	UNITED STATES TOTAL	1,842	2,020	3,610	4,205
Colorado	9	9	24	30	Texas	231	126	350	264	Puerto Rico	52	50	106	85
Montana	0	2	0	3	REGION VI TOTAL	297	222	480	446	Virgin Islands	3	7	4	11
North Dakota	1	0	1	1	Iowa	4	9	8	11	United States, including	1,807	2,077	3,720	4,361
South Dakota	1	1	1	1	Kansas	8	9	14	15	Dutying Areas				
Utah	0	0	2	1	Missouri	9	9	22	40					
Wyoming	0	0	2	4	Nebraska	11	2	12	5					
REGION VIII TOTAL	11	12	30	40	REGION VII TOTAL	32	29	56	71					

*County Data

Note: Cumulative totals include revised and delayed reports through previous months.
Source: CDC 9-86, HEW-CDC-BSS-VD Control Division, Atlanta, Georgia

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