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WEEKLY REPORT

For Week Ending January 20, 1973

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EPIDEMIOLOGIC NOTES AND REPORTS

WATERBORNE *SHIGELLA SONNEI* INFECTION – Iowa

During November 1972, 208 cases of gastrointestinal illness occurred among 289 students and 25 staff members at a junior high school in Stockport, Iowa. Prominent symptoms included headache (77%), loose (76%) and frequent (61%) bowel movements, fever (72%), nausea (65%), abdominal cramps (61%), chills (48%), and vomiting (44%). Bloody stools and tenesmus were infrequent. A similar illness also affected 12 of 26 visiting basketball players from 2 high schools who had participated in a scrimmage at the junior high school gymnasium on November 15.

Epidemiologic investigation revealed that sporadic cases of illness occurred during the 1st week of November, but that the explosive phase of the outbreak began on November 10, when 18 students and the 1st staff member became ill (Figure 1). New cases continued to occur for 1 week until a 2nd and larger wave of the outbreak produced 73 cases on November 16 and 17. Rectal swab specimens from 108 students and 2 staff members were positive for *Shigella sonnei.*

Between November 7 and December 4, 99 apparently secondary cases of diarrhea occurred in household contacts of the students and faculty members at the school. *S. sonnei* infection was documented in a few patients who submitted stool specimens.

Further investigation revealed that gastrointestinal illness among students was significantly more frequent ($p<0.02$)

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

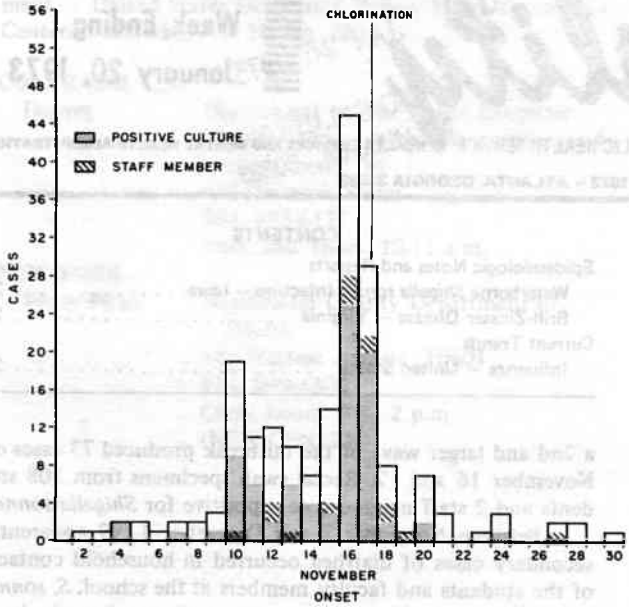
DISEASE	3rd WEEK ENDING		MEDIAN 1968-1972	CUMULATIVE, FIRST 3 WEEKS		
	January 20, 1973	January 22, 1972		1973	1972	MEDIAN 1968-1972
Aseptic meningitis	70	41	41	142	125	106
Brucellosis	3	2	1	4	6	4
Chickenpox	5,141	3,185	– – –	12,015	8,435	– – –
Diphtheria	3	1	2	5	5	7
Encephalitis, primary:						
Arthropod-borne and unspecified	19	17	18	37	48	53
Encephalitis, post-infectious	4	7	7	7	12	16
Hepatitis, serum (Hepatitis B)	136	211	132	376	532	382
Hepatitis, infectious (Hepatitis A)	1,076	1,075	1,075	2,674	3,102	3,102
Malaria	–	11	36	6	152	143
Measles (rubeola)	605	714	714	1,599	1,913	1,913
Meningococcal infections, total	33	37	51	83	103	166
Civilian	32	36	49	77	99	157
Military	1	1	2	6	4	4
Mumps	2,441	2,087	2,528	4,912	6,014	6,764
Rubella (German measles)	403	526	526	873	1,147	1,347
Tetanus	1	–	2	1	–	2
Tuberculosis, new active	584	477	– – –	1,393	1,310	– – –
Tularemia	3	4	1	7	8	5
Typhoid fever	3	2	3	9	10	15
Typhus, tick-borne (Rky. Mt. spotted fever)	1	1	–	2	5	1
Venereal Diseases:						
Gonorrhea	15,835	12,113	– – –	41,054	36,975	– – –
Syphilis, primary and secondary	603	405	– – –	1,543	1,163	– – –
Rabies in animals	58	60	60	139	181	181

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	–	Poliomyelitis, total:	–
Botulism:	–	Paralytic:	–
Congenital rubella syndrome:	1	Psittacosis: Calif. – 1	1
Leprosy:	1	Rabies in man:	–
Leptospirosis: Calif. – 1	3	Trichinosis:	4
Plague:	–	Typhus, murine:	–

SHIGELLA SONNEI – Continued

Figure 1
CASES OF GASTROINTESTINAL ILLNESS, BY DATE OF ONSET
STOCKPORT, IOWA – NOVEMBER 1972



among those who customarily drank from the school water fountains than among those who did not. Furthermore, among the visiting high school basketball players, illness occurred only in those who had drunk water from the school fountain, and attack rates paralleled the amounts of water drunk (Table 1). A sample of the tap water in the school showed high levels of coliform contamination and yielded *S. sonnei.*

The school obtained its water from a shallow well in the school yard. After the onset of the outbreak, the school water system was chlorinated, and on November 21, the school was switched to the municipal water supply.

(Reported by Laurie Dorothy, R.N., Public Health Nurse, Van Buren County; Earl C. Voelker, Sr., Regional Sanitarian,

Table 1
Attack Rates for Diarrhea, By High School and Amounts of Water Drunk
Stockport, Iowa – November 1972

Estimated Amount of Water Drunk at Scrimmage	School A			School B		
	Number Ill	Total	Attack Rate (Percent)	Number Ill	Total	Attack Rate (Percent)
None	0	5	0	0	0	0
Small	2	7	29	0	3	0
Moderate–Large	5	6	83	5	5	100
Total	7	18	39	5	8	62

and Keith Bridson, Acting Director, Water Supply Division, Iowa State Department of Environmental Quality; Shirley Lindell, Ph.D., Microbiology Laboratory, and William Hausler, Ph.D., Chief, Iowa State Hygienic Laboratory; M. R. Kosuri, M.B.B.Ch., and Francis Carr, Public Health Representatives, and Arnold M. Reeve, M.D., Commissioner of Public Health and State Epidemiologist, Iowa State Department of Health; and 2 EIS Officers.)

Editorial Note

Epidemiologic and laboratory evidence strongly incriminated the school's water supply as a source of shigella infection among students and staff. The system was substandard, with the well susceptible to contamination from surface and ground water. Shigellosis is usually spread from person to person, but it also accounted for 17% of the outbreaks of waterborne disease reported to CDC from 1961 to 1970 *(1).* Waterborne spread of shigellosis has been demonstrated epidemiologically in many instances, but isolation of the organism from contaminated water is unusual *(2, 3).*

References

1. Taylor A Jr, Graun GF, *et al:* Outbreaks of waterborne diseases in the United States, 1961-1970. JID 125:329-331, 1972
2. Green CA, Macleod MC: Explosive epidemic of Sonne dysentery. Br Med J 2:259-261, 1943
3. Ross AI, Gillespie EH: An outbreak of waterborne gastroenteritis and Sonne dysentery. Monthly Bulletin of the Great Britain Ministry of Health and the Public Health Laboratory Service 11:36-46, 1952

CURRENT TRENDS
INFLUENZA – United States

Pneumonia and influenza mortality reported to CDC from 122 U.S. cities is above the epidemic threshold for the 3rd consecutive week (Figure 2). The Mountain, East South Central, Middle Atlantic, Pacific, West South Central, and South Atlantic areas have reported mortality above the epidemic threshold for at least 2 consecutive weeks, but mortality is decreasing in the Mountain, Middle Atlantic, and West South Central areas. Furthermore, surveillance data suggests that influenza morbidity is decreasing in the Northeast but continuing in the Midwest and Far West.

(Reported by the Influenza Surveillance Unit, Viral Diseases Branch, Epidemiology Program, CDC.)

EPIDEMIOLOGIC NOTES AND REPORTS
BRILL-ZINSSER DISEASE – Virginia

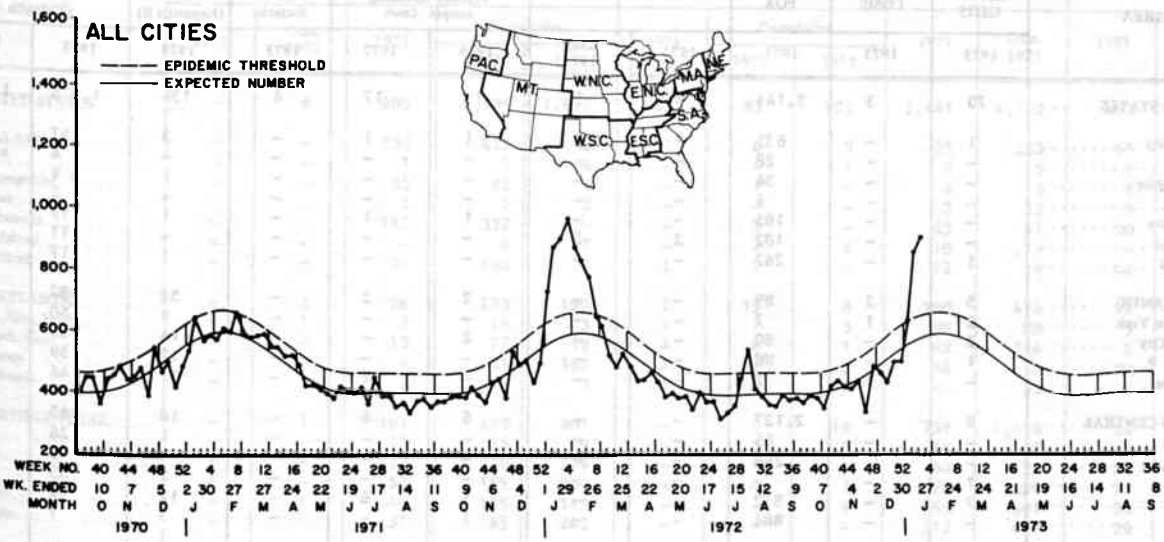
On Aug. 27, 1972, a 55-year-old Russian-born hematology technician from Alexandria, Virginia, became ill with generalized weakness, drowsiness, anorexia, chills, and headache. She continued to work, but her condition worsened, and 2 days later, she had a temperature of 102°F. A complete blood cell count at this time was normal, and febrile agglutinins for typhoid fever, brucellosis, and Proteus OX2 and OX19 were negative.

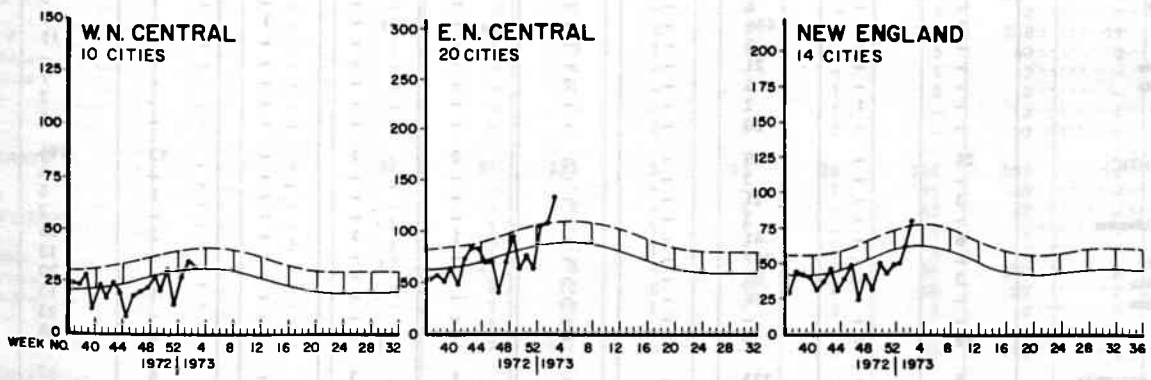
On August 30, the patient began a 5-day course of ampicillin and aspirin. Two days after starting therapy, a mild rash developed beneath both breasts, but the patient completed

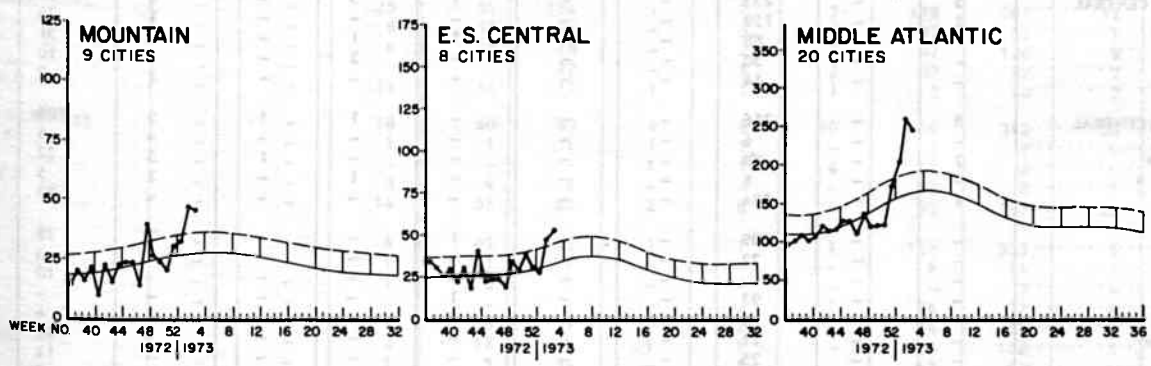
(Continued on page 28)

Figure 2

PNEUMONIA-INFLUENZA DEATHS IN 122 UNITED STATES CITIES







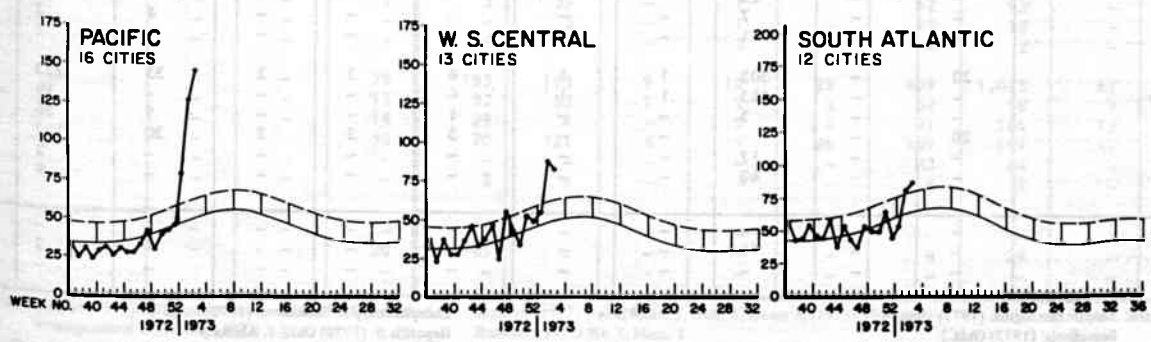


TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDING JANUARY 20, 1973 AND JANUARY 22, 1972 (3rd WEEK)

AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS		
						Primary including unspec. cases		Post Infectious	Serum (Hepatitis B)	Infectious (Hepatitis A)	
	1973	1973	1973	1973	Cum. 1973	1973	1972	1973	1973	1973	1972
UNITED STATES	70	3	5,141	3	5	19	17	4	136	1,076	1,075
NEW ENGLAND	1	–	635	2	2	1	1	–	3	57	82
Maine *	–	–	28	–	–	–	–	–	–	4	11
New Hampshire	–	–	34	–	–	–	–	–	1	4	5
Vermont	–	–	4	–	–	–	–	–	–	2	7
Massachusetts	–	–	185	–	–	1	1	–	1	19	33
Rhode Island	–	–	102	2	2	–	–	–	–	11	6
Connecticut	1	–	282	–	–	–	–	–	1	17	20
MIDDLE ATLANTIC	5	2	89	–	–	2	2	–	52	182	150
Upstate New York	2	1	7	–	–	–	–	–	9	50	33
New York City	2	–	80	–	–	2	–	–	14	27	57
New Jersey *	1	–	NN	–	–	–	–	–	12	59	57
Pennsylvania	–	1	2	–	–	–	2	–	17	46	3
EAST NORTH CENTRAL	8	–	2,127	–	–	6	6	–	18	163	158
Ohio	–	–	85	–	–	–	–	–	1	26	23
Indiana *	–	–	266	–	–	–	–	–	–	5	6
Illinois	1	–	–	–	–	–	–	–	2	33	19
Michigan	7	–	892	–	–	5	6	–	12	92	103
Wisconsin	–	–	884	–	–	1	–	–	3	7	7
WEST NORTH CENTRAL	1	1	750	–	2	–	–	1	2	37	58
Minnesota *	–	–	6	–	–	–	–	–	1	3	6
Iowa	1	–	686	–	–	–	–	1	–	5	2
Missouri *	–	–	9	–	–	–	–	–	–	15	6
North Dakota	–	–	21	–	–	–	–	–	1	–	10
South Dakota	–	–	6	–	2	–	–	–	–	7	4
Nebraska	–	1	2	–	–	–	–	–	–	2	4
Kansas *	–	–	20	–	–	–	–	–	–	5	26
SOUTH ATLANTIC	24	–	479	–	–	2	1	–	13	164	164
Delaware	–	–	3	–	–	–	–	–	–	4	1
Maryland	3	–	21	–	–	–	–	–	1	6	26
District of Columbia	–	–	3	–	–	–	–	–	–	2	2
Virginia	6	–	41	–	–	1	1	–	5	28	22
West Virginia	–	–	387	–	–	–	–	–	–	13	10
North Carolina	3	–	NN	–	–	–	–	–	–	20	29
South Carolina	–	–	24	–	–	–	–	–	1	13	7
Georgia *	–	–	–	–	–	–	–	–	–	23	11
Florida	12	–	–	–	–	1	–	–	6	55	56
EAST SOUTH CENTRAL	3	–	233	–	–	1	3	–	6	67	75
Kentucky	2	–	159	–	–	–	–	–	1	24	34
Tennessee	1	–	NN	–	–	1	1	–	–	31	33
Alabama	–	–	30	–	–	–	2	–	3	10	5
Mississippi	–	–	44	–	–	–	–	–	2	2	3
WEST SOUTH CENTRAL	8	–	316	–	–	–	1	1	5	108	102
Arkansas *	–	–	6	–	–	–	–	–	–	4	7
Louisiana *	7	–	NN	–	–	–	–	1	3	22	9
Oklahoma *	–	–	6	–	–	–	1	–	2	5	36
Texas	1	–	304	–	–	–	–	–	–	77	50
MOUNTAIN	–	–	209	–	–	1	–	–	2	75	41
Montana	–	–	22	–	–	–	–	–	–	3	3
Idaho	–	–	–	–	–	–	–	–	–	10	–
Wyoming	–	–	93	–	–	1	–	–	–	–	–
Colorado	–	–	50	–	–	–	–	–	1	4	11
New Mexico	–	–	11	–	–	–	–	–	–	40	7
Arizona	–	–	25	–	–	–	–	–	–	14	15
Utah	–	–	7	–	–	–	–	–	1	2	5
Nevada	–	–	1	–	–	–	–	–	–	2	–
PACIFIC	20	–	303	1	1	6	3	2	35	223	245
Washington	–	–	243	1	1	–	–	–	–	19	19
Oregon	–	–	3	–	–	1	–	–	5	36	30
California	20	–	–	–	–	5	3	2	30	157	190
Alaska *	–	–	17	–	–	–	–	–	–	2	3
Hawaii	–	–	40	–	–	–	–	–	–	9	3
Guam *	–	–	–	–	–	–	–	–	–	–	1
Puerto Rico	–	–	11	–	–	–	–	–	–	2	1
Virgin Islands	–	–	–	–	–	–	–	–	–	–	–

*Delayed reports: Aseptic meningitis: (1972) Minn. 4
Brucellosis: (1972) Okla.2
Chickenpox: (1972) Me. 68, Minn. 25, Guam 2, (1973) Mo. 63, Ark. 2, Guam 8
Encephalitis, primary: (1972) Minn. 1, Ark. 1
Encephalitis, post-infectious: (1972) Minn. 1
Hepatitis B: (1972) Okla. 1, Alaska 3
Hepatitis A: (1972) Me. 8, N.J. delete 1, Ind. delete 1, Kans, 4, Ga. 2, Ark. 2, La. delete 1, Okla. 4, Alaska 3, Guam 1, (1973) Mo. 20, Ark. 2

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDING JANUARY 20, 1973 AND JANUARY 22, 1972 (3rd 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	–	6	605	1,599	1,913	33	83	103	2,441	4,912	403	873
NEW ENGLAND	–	–	233	615	46	1	6	3	75	223	69	94
Maine *	–	–	1	1	6	–	–	1	2	5	1	1
New Hampshire *	–	–	35	92	4	–	1	–	4	5	1	1
Vermont	–	–	1	1	2	–	–	–	2	53	3	4
Massachusetts	–	–	142	337	–	–	3	–	45	91	20	39
Rhode Island	–	–	–	4	27	–	–	2	10	15	–	–
Connecticut	–	–	54	180	7	1	2	–	12	54	44	49
MIDDLE ATLANTIC	–	2	26	133	190	7	15	8	200	474	94	128
Upstate New York	–	1	7	14	3	1	1	3	NN	NN	5	11
New York City	–	–	13	77	19	4	6	1	89	286	2	10
New Jersey	–	–	4	31	165	1	4	3	66	93	79	95
Pennsylvania	–	1	2	11	3	1	4	1	45	95	8	12
EAST NORTH CENTRAL	–	1	161	413	901	–	3	16	759	1,456	84	197
Ohio	–	–	12	18	19	–	3	8	41	148	7	18
Indiana	–	–	13	40	279	–	–	1	50	121	20	54
Illinois	–	–	53	165	249	–	–	3	70	229	11	24
Michigan	–	1	46	105	112	–	–	4	385	501	20	52
Wisconsin	–	–	37	85	242	–	–	–	213	457	26	49
WEST NORTH CENTRAL	–	–	20	48	31	5	6	4	245	320	16	145
Minnesota *	–	–	–	3	1	–	–	–	2	2	1	1
Iowa	–	–	19	44	22	2	3	–	235	248	11	23
Missouri *	–	–	1	1	3	1	1	–	5	40	3	106
North Dakota	–	–	–	–	4	–	–	–	1	5	–	5
South Dakota	–	–	–	–	1	–	–	1	2	2	–	–
Nebraska	–	–	–	–	–	–	–	1	–	13	1	10
Kansas	–	–	–	–	–	2	2	2	–	10	–	–
SOUTH ATLANTIC	–	3	37	61	232	5	13	25	216	508	19	37
Delaware	–	–	–	–	–	–	–	1	15	40	–	–
Maryland	–	–	–	–	2	–	4	–	45	98	–	1
District of Columbia	–	–	1	1	–	1	1	–	2	4	–	1
Virginia	–	2	2	7	–	1	2	10	6	41	1	1
West Virginia	–	–	17	21	8	–	–	3	89	203	8	16
North Carolina	–	1	–	2	10	2	5	4	NN	NN	1	3
South Carolina	–	–	–	2	19	1	1	3	3	8	3	3
Georgia	–	–	–	1	19	–	–	–	–	–	1	1
Florida	–	–	17	27	174	–	–	4	56	114	5	11
EAST SOUTH CENTRAL	–	–	25	34	124	1	7	7	118	261	12	27
Kentucky	–	–	8	10	73	–	3	3	32	53	1	2
Tennessee	–	–	6	10	18	–	2	1	47	126	8	18
Alabama	–	–	–	–	22	–	1	2	37	72	1	3
Mississippi *	–	–	11	14	11	1	1	1	2	10	2	4
WEST SOUTH CENTRAL	–	–	18	60	83	4	8	10	99	312	36	67
Arkansas *	–	–	1	1	1	1	1	–	2	5	–	5
Louisiana	–	–	–	–	–	1	1	4	2	2	–	–
Oklahoma *	–	–	3	4	2	–	–	–	2	8	1	2
Texas	–	–	14	55	80	2	6	6	93	297	35	60
MOUNTAIN	–	–	6	42	123	1	7	1	120	335	6	28
Montana	–	–	1	1	1	–	–	–	6	14	1	1
Idaho	–	–	1	3	1	–	–	–	–	3	–	4
Wyoming	–	–	–	–	–	–	–	1	24	77	–	–
Colorado	–	–	1	16	79	–	2	–	14	25	4	13
New Mexico	–	–	2	17	4	1	1	–	50	108	1	6
Arizona	–	–	1	5	35	–	1	–	12	93	–	3
Utah	–	–	–	–	3	–	1	–	12	13	–	–
Nevada	–	–	–	–	–	–	2	–	2	2	–	1
PACIFIC	–	–	79	193	183	9	18	29	609	1,023	67	150
Washington	–	–	15	92	52	1	2	2	52	98	7	25
Oregon	–	–	14	29	4	–	2	1	71	184	13	31
California	–	–	50	70	121	8	14	26	449	669	47	94
Alaska	–	–	–	–	–	–	–	–	33	64	–	–
Hawaii	–	–	–	2	6	–	–	–	4	8	–	–
Guam *	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	–	–	20	95	6	–	–	–	8	29	–	3
Virgin Islands	–	–	–	–	–	–	–	–	–	–	–	–

*Delayed reports: Measles (1972) N.H. 3, Miss. delete 4, (1973) Miss. delete 6
Meningococcal infections: (1972) N.H. 1, Ark. 1
Mumps: (1972) Me. 4, Minn. 3, Okla. 1, Guam 3, (1973) Mo. 30
Rubella: (1972) Me. 5, Minn. 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDING JANUARY 20, 1973 AND JANUARY 22, 1972 (3rd WEEK) – Continued

AREA	TETANUS	TUBERCULOSIS (New Active)		TULAREMIA	TYPHOID FEVER		TYPHUS-FEVER TICK-BORNE (Rky. Mt. spotted fever)		VENEREAL DISEASES		RABIES IN ANIMALS	
									GONORRHEA	SYPHILIS (Pri. & Sec.)		
	Cumulative 1973	1973	Cum. 1973	Cumulative 1973	1973	Cum. 1973	1973	Cum. 1973	1973	1973	1973	Cum. 1973
UNITED STATES	1	584	1,393	7	3	9	1	2	15,835	603	58	139
NEW ENGLAND	–	12	27	–	–	–	–	–	521	12	5	8
Maine	–	–	–	–	–	–	–	–	13	–	5	8
New Hampshire	–	–	–	–	–	–	–	–	12	–	–	–
Vermont	–	–	–	–	–	–	–	–	12	–	–	–
Massachusetts	–	12	23	–	–	–	–	–	283	4	–	–
Rhode Island	–	–	3	–	–	–	–	–	76	–	–	–
Connecticut	–	–	1	–	–	–	–	–	125	8	–	–
MIDDLE ATLANTIC	1	111	241	–	–	3	–	1	2,865	108	–	2
Upstate New York	–	41	78	–	–	–	–	–	362	9	–	–
New York City	1	25	69	–	–	3	–	–	1,398	66	–	–
New Jersey	–	21	54	–	–	–	–	–	350	16	–	–
Pennsylvania	–	24	40	–	–	–	–	1	755	17	–	2
EAST NORTH CENTRAL	–	100	234	–	–	1	–	–	1,496	31	1	9
Ohio	–	42	103	–	–	–	–	–	365	6	–	–
Indiana	–	5	13	–	–	–	–	–	187	2	1	2
Illinois	–	22	53	–	–	–	–	–	229	7	–	1
Michigan *	–	19	19	–	–	1	–	–	583	15	–	–
Wisconsin	–	12	46	–	–	–	–	–	132	1	–	6
WEST NORTH CENTRAL	–	16	32	1	–	–	–	–	725	8	13	46
Minnesota *	–	–	1	–	–	–	–	–	203	4	5	9
Iowa	–	2	10	–	–	–	–	–	82	–	1	17
Missouri	–	5	9	1	–	–	–	–	340	4	4	7
North Dakota	–	–	–	–	–	–	–	–	14	–	3	10
South Dakota *	–	4	5	–	–	–	–	–	53	–	–	3
Nebraska *	–	2	3	–	–	–	–	–	33	–	–	–
Kansas *	–	3	4	–	–	–	–	–	–	–	–	–
SOUTH ATLANTIC	–	135	322	1	–	1	–	–	3,647	166	10	19
Delaware	–	–	2	–	–	–	–	–	47	1	–	–
Maryland	–	10	29	–	–	–	–	–	327	19	–	–
District of Columbia	–	1	14	–	–	–	–	–	435	13	–	–
Virginia	–	24	53	1	–	–	–	–	324	52	4	9
West Virginia	–	6	12	–	–	–	–	–	75	2	1	3
North Carolina	–	20	44	–	–	–	–	–	458	4	–	–
South Carolina	–	19	59	–	–	–	–	–	481	17	–	–
Georgia	–	17	45	–	–	–	–	–	572	31	2	3
Florida	–	38	64	–	–	1	–	–	928	27	3	4
EAST SOUTH CENTRAL	–	41	106	3	1	1	1	1	1,342	36	16	30
Kentucky *	–	8	23	1	–	–	–	–	158	20	4	9
Tennessee	–	12	32	2	–	–	–	–	509	7	5	14
Alabama	–	10	36	–	1	1	1	1	371	2	7	7
Mississippi	–	11	15	–	–	–	–	–	304	7	–	–
WEST SOUTH CENTRAL	–	52	122	2	–	–	–	–	2,003	86	7	11
Arkansas	–	9	20	–	–	–	–	–	154	2	–	1
Louisiana *	–	–	11	–	–	–	–	–	272	23	2	2
Oklahoma	–	4	12	2	–	–	–	–	182	2	–	3
Texas	–	39	79	–	–	–	–	–	1,395	59	5	5
MOUNTAIN	–	15	62	–	–	–	–	–	601	7	–	3
Montana	–	–	–	–	–	–	–	–	39	–	–	–
Idaho	–	–	–	–	–	–	–	–	35	1	–	–
Wyoming	–	–	2	–	–	–	–	–	–	–	–	–
Colorado	–	1	1	–	–	–	–	–	162	4	–	–
New Mexico	–	4	10	–	–	–	–	–	112	–	–	–
Arizona *	–	9	46	–	–	–	–	–	169	1	–	3
Utah	–	–	–	–	–	–	–	–	35	–	–	–
Nevada	–	1	3	–	–	–	–	–	49	1	–	–
PACIFIC	–	102	247	–	2	3	–	–	2,635	149	6	11
Washington	–	18	29	–	–	–	–	–	233	13	–	–
Oregon	–	4	4	–	–	–	–	–	306	5	–	–
California	–	77	203	–	2	3	–	–	2,018	127	5	10
Alaska	–	–	–	–	–	–	–	–	33	–	1	1
Hawaii	–	3	11	–	–	–	–	–	45	4	–	–
Guam *	–	–	1	–	–	–	–	–	–	–	–	–
Puerto Rico	–	13	23	–	–	–	–	–	69	22	1	3
Virgin Islands	–	–	–	–	–	–	–	–	6	–	–	–

*Delayed reports: TB: (1972) Mich. 34, Minn. 6, Neb. 6, Kans. 3, Ky. delete 1, Guam 1, (1973) Guam 1
Gonorrhea: (1972) Kans. 96, La. delete 12, Guam 5, (1973) Ariz. 38, Guam 21
Animal rabies: (1972) S. Dak. 15, Kans. 1, (1973) Ariz. 2

Week No. 3

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDING JANUARY 20, 1973

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

Area	All Causes			Pneumonia and Influenza	Area	All Causes			Pneumonia and Influenza
	All Ages	65 years and over	Under 1 year	All Ages		All Ages	65 years and over	Under 1 year	All Ages
NEW ENGLAND	898	603	31	80	SOUTH ATLANTIC	1,554	829	44	87
Boston, Mass.	271	168	10	29	Atlanta, Ga.	138	65	4	3
Bridgeport, Conn.	45	29	2	6	Baltimore, Md.	341	184	9	5
Cambridge, Mass.	46	37	1	14	Charlotte, N. C.	65	34	3	–
Fall River, Mass.	42	28	2	1	Jacksonville, Fla.	136	73	7	3
Hartford, Conn.	66	38	6	–	Miami, Fla.	135	78	4	9
Lowell, Mass.	37	23	1	1	Norfolk, Va.	75	37	3	12
Lynn, Mass.	31	25	–	2	Richmond, Va.	129	66	2	18
New Bedford, Mass.	21	18	–	1	Savannah, Ga.	46	17	–	3
New Haven, Conn.	77	44	5	6	St. Petersburg, Fla.	128	106	–	8
Providence, R. I.	69	43	2	6	Tampa, Fla.	105	52	5	7
Somerville, Mass.	22	20	–	3	Washington, D. C.	208	95	6	15
Springfield, Mass.	54	38	2	4	Wilmington, Del.	48	22	1	4
Waterbury, Conn.	43	31	–	–					
Worcester, Mass.	74	61	–	7	EAST SOUTH CENTRAL	997	588	28	52
					Birmingham, Ala.	141	81	4	4
MIDDLE ATLANTIC	3,978	2,510	121	245	Chattanooga, Tenn.	63	35	1	4
Albany, N. Y.	63	39	3	4	Knoxville, Tenn.	51	36	2	2
Allentown, Pa.	31	20	–	4	Louisville, Ky.	192	130	4	16
Buffalo, N. Y.	161	100	4	5	Memphis, Tenn.	301	174	3	14
Camden, N. J.	37	23	5	4	Mobile, Ala.	93	45	6	1
Elizabeth, N. J.	32	21	–	3	Montgomery, Ala.	30	18	–	5
Erie, Pa.	52	38	–	4	Nashville, Tenn.	126	69	8	6
Jersey City, N. J.	73	45	3	9					
Newark, N. J.	114	58	5	7	WEST SOUTH CENTRAL	1,660	962	88	84
New York City, N. Y. †	2,175	1,391	61	136	Austin, Tex.	52	34	2	5
Paterson, N. J.	56	42	1	6	Baton Rouge, La.	65	43	1	5
Philadelphia, Pa.	503	296	16	10	Corpus Christi, Tex.	39	28	2	2
Pittsburgh, Pa.	198	117	5	19	Dallas, Tex.	241	130	8	5
Reading, Pa.	64	48	1	6	El Paso, Tex.	81	45	6	9
Rochester, N. Y.	142	93	8	18	Fort Worth, Tex.	136	75	13	7
Schenectady, N. Y.	23	14	–	–	Houston, Tex.	253	131	12	10
Scranton, Pa.	32	25	–	2	Little Rock, Ark.	90	53	5	8
Syracuse, N. Y.	106	68	2	2	New Orleans, La.	240	133	18	8
Trenton, N. J.	54	30	4	–	Oklahoma City, Okla. *	116	72	6	4
Utica, N. Y.	26	22	–	3	San Antonio, Tex.	162	98	10	8
Yonkers, N. Y.	36	20	3	3	Shreveport, La.	106	68	2	7
					Tulsa, Okla.	79	52	3	6
EAST NORTH CENTRAL	3,021	1,767	141	137					
Akron, Ohio	97	66	5	–	MOUNTAIN	623	367	23	46
Canton, Ohio	56	36	4	5	Albuquerque, N. Mex.	75	38	3	14
Chicago, Ill.	855	501	35	43	Colorado Springs, Colo.	27	15	3	2
Cincinnati, Ohio	195	119	4	10	Denver, Colo.	132	77	3	9
Cleveland, Ohio	229	133	7	5	Las Vegas, Nev.	33	17	–	3
Columbus, Ohio	187	108	10	7	Ogden, Utah	26	17	1	2
Dayton, Ohio	123	76	6	6	Phoenix, Ariz.	138	89	7	2
Detroit, Mich.	350	185	21	4	Pueblo, Colo.	19	12	–	2
Evansville, Ind.	69	47	1	5	Salt Lake City, Utah	81	44	4	3
Fort Wayne, Ind.	56	34	1	3	Tucson, Ariz.	92	58	2	9
Gary, Ind.	46	21	7	2					
Grand Rapids, Mich.	68	44	1	4	PACIFIC	2,331	1,571	58	145
Indianapolis, Ind.	170	88	8	8	Berkeley, Calif.	31	20	–	5
Madison, Wis.	47	26	3	9	Fresno, Calif.	79	49	6	11
Milwaukee, Wis.	182	112	11	8	Glendale, Calif.	42	29	–	2
Peoria, Ill.	44	27	4	2	Honolulu, Hawaii *	75	46	4	4
Rockford, Ill.	36	18	3	8	Long Beach, Calif.	143	81	2	13
South Bend, Ind.	39	23	1	5	Los Angeles, Calif.	778	532	10	19
Toledo, Ohio	117	67	5	1	Oakland, Calif.	116	86	8	9
Youngstown, Ohio	55	36	4	2	Pasadena, Calif.	39	30	–	2
					Portland, Oreg.	155	118	5	2
WEST NORTH CENTRAL	995	667	18	32	Sacramento, Calif.	112	80	5	12
Des Moines, Iowa	75	57	–	5	San Diego, Calif.	165	114	5	11
Duluth, Minn.	32	23	2	2	San Francisco, Calif.	263	162	6	14
Kansas City, Kans.	76	45	5	–	San Jose, Calif.	75	62	–	13
Kansas City, Mo.	159	105	3	1	Seattle, Wash.	161	91	6	11
Lincoln, Nebr.	32	24	–	1	Spokane, Wash.	53	40	–	9
Minneapolis, Minn.	118	75	4	7	Tacoma, Wash.	44	31	1	8
Omaha, Nebr.	124	90	–	4					
St. Louis, Mo.	257	171	1	5	Total	16,057	9,864	552	908
St. Paul, Minn.	75	49	2	3	Expected Number	13,619	8,014	559	580
Wichita, Kans.	47	28	1	4	Cumulative Total (includes reported corrections for previous weeks)	45,192	27,396	1,572	2,406

†Delayed report for week ending January 13, 1973
*Estimate based on average percent of divisional total

BRILL-ZINSSER – Continued

the course of ampicillin and improved rapidly. At this time, the Proteus OX19 titer had risen to 1:640, and acute and convalescent complement fixation tests on September 4 and September 15 showed the following results: Murine typhus–1:256 and 1:512, epidemic typhus–1:256 and 1:256, Rocky Mountain spotted fever <1:8 and 1:16, and Q fever <1:8 and <1:8, respectively.

Epidemiologic investigation revealed that as a child in western Russia, the patient had had measles and whooping cough, and in 1942, while working with typhus patients in Minsk, she had developed "typhus exanthem". The patient left the Soviet Union in 1944, was detained in Germany for 1 year and Austria for 7 years, and arrived in the United States in 1952. In 1960, she visited Greece for 26 months. She received typhus vaccine twice before she went and a booster dose shortly before her return to this country.

The patient's most recent foreign travel had been from August 6 to 21, 1972, when she toured Holland, Norway, Sweden, and Denmark with 39 Americans 13 to 79 years of age. The group traveled through provincial towns, but there was no camping, hiking, or animal exposure.

The patient and her husband live a half hour's drive from the Alexandria waterfront and have 1 pet, a 9-year-old dog. After returning from the tour, she reported working in her garden but denied insect bites. Rodent infestation has not been a problem in her home or neighborhood, and no cases of murine typhus have been reported in the state for 3 years. *(Reported by Richard E. Palmer, M.D., Director, Alexandria Hospital Laboratory; Angel A. Cardona, M.D., Director, Alexandria Health Department; and Karl A. Western, M.D., State Epidemiologist, Virginia State Department of Health.)*

Editorial Note

Brill-Zinsser disease, or recrudescent typhus fever, can occur decades after the primary attack. In the United States, it has been seen primarily in immigrants from eastern Europe, where a great pandemic of typhus raged in 1920-21. In World War II, the disease was common there and in German concentration camps. Although patients with Brill-Zinsser disease can infect lice and thereby give rise to an epidemic, they are not infectious in the absence of lice. In the present case, the diagnosis was based on the clinical picture, the history of epidemic "typhus exanthematicus" (in European literature), the apparent lack of exposure to murine typhus, and the high complement fixing antibody titer early in the illness. The typhus antigens employed were of the "soluble" type and usually do not distinguish between epidemic and murine typhus fever. Although persons who have had primary epidemic typhus fever may have demonstrable antibodies for many years, their titers are generally low.

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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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