



Morbidity and Mortality

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EPIDEMIOLOGIC NOTES AND REPORTS
SEROGROUP A MENINGOCOCCI
 Canada, Illinois, and Massachusetts

Serogroup A meningococcal infection has rarely been recognized in North America for several years. Recent incidents in Canada, Illinois, and Massachusetts indicate that the incidence of serogroup A disease may be increasing. The reports are summarized below.

Canada

From Jan. 1, 1970, to Jan. 31, 1972, a total of 107 cases of meningococcal disease with three deaths were reported in Manitoba, Canada. In a population of slightly less than 1 million, this is approximately a 6-fold increased incidence of meningococcal disease compared with previous years (Figure 1) and compared with the incidence in the United States in 1971. Of the 61 typed isolates of *Neisseria meningitidis* from the cases, 38 were serogroup A, a serogroup

CONTENTS

Epidemiologic Notes and Reports
 Serogroup A Meningococci - Canada, Illinois, and Massachusetts 89
 Shigellosis - California 96
 Surveillance Summary
Shigella Dysenteriae 1 - United States, 1971 91

which has been identified infrequently in North America for more than 20 years. An increasing incidence of serogroup A disease in Manitoba was mainly responsible for the overall increase in rates.

The increase in serogroup A cases appears to have started in 1970 among Indians on reservations in the northern district of Manitoba and extended south to Indian villages in

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

DISEASE	11th WEEK ENDED		MEDIAN 1967-1971	CUMULATIVE, FIRST 11 WEEKS		
	March 18, 1972	March 20, 1971		1972	1971	MEDIAN 1967-1971
Aseptic meningitis	25	53	34	375	597	313
Brucellosis	4	4	4	20	20	20
Chickenpox	3,757	---	---	33,559	---	---
Diphtheria	---	6	1	24	47	29
Encephalitis, primary:						
Arthropod-borne & unspecified	10	21	21	161	239	219
Encephalitis, post-infectious	3	7	8	47	63	79
Hepatitis, serum	200	176	107	2,079	1,787	1,089
Hepatitis, infectious	1,204	1,147	1,029	12,143	13,440	9,996
Malaria	32	58	51	351	827	493
Measles (rubeola)	949	2,442	1,630	7,840	20,298	12,002
Meningococcal infections, total	45	83	83	400	730	769
Civilian	41	67	67	384	622	707
Military	4	16	7	16	108	62
Mumps	2,292	3,832	---	23,272	37,883	---
Rubella (German measles)	1,087	1,388	1,871	6,763	11,765	10,602
Tetanus	2	2	2	16	13	19
Tuberculosis, new active	737	---	---	6,351	---	---
Tularemia	3	1	1	25	23	23
Typhoid fever	5	9	6	53	58	49
Typhus, tick-borne (Rky. Mt. Spotted Fever)	---	1	---	10	4	3
Venereal Diseases:						
Gonorrhea	11,873	---	---	139,963	---	---
Syphilis, primary and secondary	426	---	---	4,695	---	---
Rabies in animals	108	98	84	786	856	796

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	---	Poliomyelitis, total:	5
Botulism:	---	Paralytic:	5
Congenital rubella syndrome:	7	Psittacosis: Conn. - 1	5
Leprosy:	20	Rabies in man:	1
Leptospirosis:	2	Trichinosis:	17
Plague: *	1	Typhus, murine:	5

*Delayed reports: Plague: Ariz. 1

SEROGROUP A MENINGOCOCCI – Continued

the Interlake Region and to Winnipeg in 1971 (Figure 2). Most of the cases in Winnipeg had direct contact with the Interlake communities.

Since January 1970, the incidence of serogroup A and other meningococcal disease in Manitoba has been highest in persons less than 2 years of age. The number of cases peaked in March, April, and May for all meningococcal disease, but no seasonal trend for serogroup A disease was demonstrable.

Secondary serogroup A cases occurred in three families. In one family, three children and a 58-year-old grandmother became ill with serogroup A meningococcal infection. In two other families, two siblings acquired this disease. Serogroup A carriage outside of families with a case was infrequent. Of 181 specimens obtained in and around Winnipeg from school children in seven classrooms, five of which had a known serogroup A carrier or case, no additional carriers were found.

All of the 21 serogroup A isolates tested were sensitive to 10 mcg/ml of sulfonamides. Five of nine serogroup C isolates and five of eight serogroup B isolates were resistant to 10 mcg/ml of sulfonamides.

(Reported by Allan R. Ronald, M.D., Elizabeth Diment, M.D., Patricia Landolfo, Clinical Microbiology, Winnipeg General Hospital, Winnipeg, Manitoba; and Emmanuel Snell, M.D., Provincial Epidemiologist, Manitoba Provincial Health Department, Winnipeg, Manitoba.)

Illinois

As part of the surveillance of meningococcal disease at the Recruit Training Command, Great Lakes, Illinois, nasopharyngeal specimens have been obtained from approximately 90,000 base personnel since June 1967. Initially, a single specimen was obtained from 7% of the incoming recruits. No serogroup A meningococci were isolated until January 1969. From January 1969 to January 1970, nine people were found to carry serogroup A meningococci. Of these, three were recruits: two were from Wisconsin, and one was from New York. The other persons with positive cultures had recently returned from sea duty in the Pacific.

Since February 1971, specimens from approximately 10% of all military companies on the base have been cultured weekly. No further serogroup A carriers were found until January 1972 when four recruits (from Massachusetts, Virginia, Ohio, and Wisconsin) in one company were found to be serogroup A carriers. They represented 0.1% of the number of personnel from whom specimens were obtained in January and 0.3% of those with cultures positive for meningococci

Figure 1
ANNUAL INCIDENCE OF REPORTED MENINGOCOCCAL DISEASE
MANITOBA AND CANADA – 1960-1971

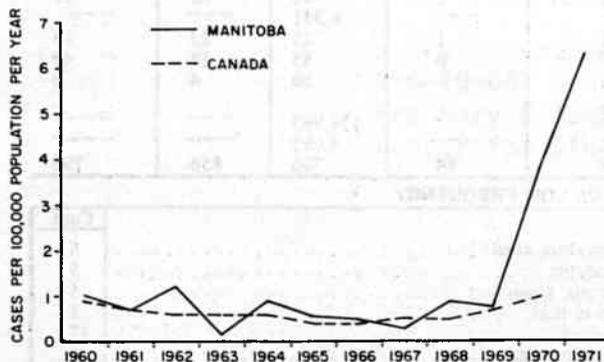
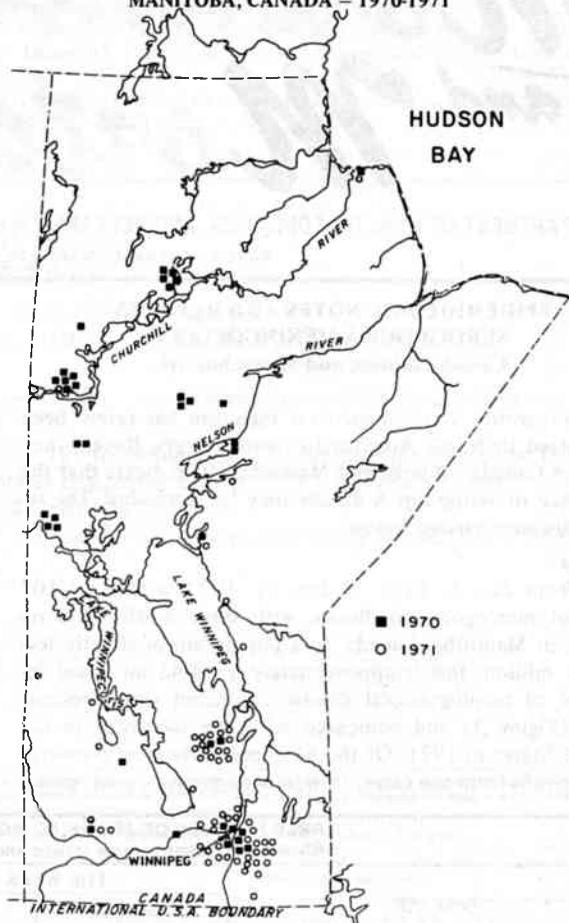


Figure 2
CASES OF MENINGOCOCCAL DISEASE
MANITOBA, CANADA – 1970-1971



that month. All four isolates were sensitive to sulfadiazine at a concentration of 10 mcg/ml. Meningococci could not be isolated from these four men after treatment with 1 gm of sulfadiazine twice daily for 2 days. No cases of serogroup A meningococcal disease have occurred.

(Reported by Leonard F. Devine, Commander, MSC, USN, Bacteriology Division, and Robert O. Peckinpaugh, Captain, MC, USN, Commanding Officer, NAMRU-4, Great Lakes, Illinois.)

Massachusetts

On Dec. 19, 1971, a 22-year-old man from Quincy, Massachusetts, had onset of headache and fever. He was admitted to a nearby hospital where he was found to have serogroup A meningococcal meningitis. He subsequently recovered without residua.

The patient had no history of recent travel outside of Massachusetts or contact with other persons with meningitis. He lives with his mother, sister, and two brothers, and had recently been visited by his grandparents from Nova Scotia. Pharyngeal specimens were obtained from these family contacts in February and from the patient after his recovery. An ungroupable meningococcus was obtained from one of the patient's brothers. No other meningococci were isolated from the patient or his family.

(Reported by Ormond L. Haynes, M.D., intern in medicine, Massachusetts General Hospital, Boston; Kenneth F. Girard,

Ph.D., Acting Director, Diagnostic Laboratories, Nicholas J. Fiumara, M.D., Director, Division of Communicable Diseases, Massachusetts Department of Public Health; and an EIS Officer.)

Editorial Note

The outbreak of serogroup A *N. meningitidis* in Manitoba is the first recognized outbreak of this disease in North America in nearly three decades (1). Serogroup A meningococci appear to be unique in their ability to cause widespread epidemics, a characteristic which may be related to a higher ratio of cases to carriers of serogroup A than of other meningococcal serogroups (2). Isolates from several of the Manitoba cases and the single case in Massachusetts were serogrouped at CDC.

The importance of serogrouping meningococcal isolates is emphasized by the outbreak in Manitoba. Isolates of serogroup A in the United States, with one exception (MMWR,

Vol. 20, No. 30), have never been found to be resistant to sulfonamides at a concentration of 10 mcg/ml, while serogroups B and C are commonly resistant. In most instances, therefore, sulfonamides are effective chemoprophylaxis against meningococcal disease in close contacts of a person with serogroup A disease.

Serogroup-specific meningococcal vaccines are being developed. The serogroup A vaccine has received preliminary field testing in sub-Saharan Africa, where serogroup A disease has been prominent for many years. The field testing of this vaccine in North America may become both possible and desirable if serogroup A disease becomes more widespread here.

References

1. Feldman HA: Meningococcal disease, 1965. JAMA 196:105-107, 1966
2. Aycock WL, Mueller JH: Meningococcus carrier rates and meningitis incidence. Bact Rev 14:115-160, 1950

SURVEILLANCE SUMMARY
SHIGELLA DYSENTERIAE 1 - United States, 1971

In the United States in 1971, 42 cases of infection with *Shigella dysenteriae* 1 were reported to CDC (Figure 3), compared with 28 in 1970. Included as a case was any person with a positive stool culture or a contact of such a case with a positive serologic titer ($\geq 1:40$ by the indirect hemagglutination test). The four states bordering Mexico accounted for 38 of the cases, compared with 13 in 1970 (Table 1). Twenty of these were in California, nine in Arizona, eight in Texas, and one in New Mexico. Fourteen of the patients from California lived in Los Angeles County. Most patients were Mexican-American or American-Indian and lived in communities where there was frequent contact with neighboring areas of Mexico.

In 1971, 20 cases (48%) had a history of recent travel outside of the United States; 23 (82%) had such a history in 1970. Nineteen of the patients in 1971 had traveled to Mexico, an increase of three over 1970. There were 18 sec-

Table 1
Cases of Shiga Infection, by Place of Residence
United States - 1970-71

Place of Residence	Number of Cases	
	1970	1971
California	10	20
(Los Angeles County)	(4)	(14)
Arizona	0	9
Texas	1	8
New Mexico	2	1
Total (all border states)	13	38
Other States	15	4
Total (all states)	28	42

ondary cases in persons who had no history of foreign travel, a large increase from the two reported in 1970. While 11 of the secondary cases in 1971 had family contacts who had traveled outside the United States, there were seven with positive stool cultures who had no such contacts.

(Reported by the Enteric Diseases Section, Bacterial Diseases Branch, Epidemiology Program, CDC.)

Editorial Note

In 1970, most cases of infection with *S. dysenteriae* 1 were in tourists of above-average socioeconomic status from all parts of the United States; the number of secondary cases was very low. In 1971, however, there was an increase in the total number of cases and in the number of cases in lower-socioeconomic persons who lived near the Mexican border and who had a history of repeated contact with Mexico through family or friends. The number of secondary cases was also higher.

These changes in the geographic and socioeconomic distribution of Shiga's bacillus, as well as the increased number of secondary cases, suggest that some transmission of this disease is occurring within the United States.

Figure 3
PERSONS WITH SHIGA'S BACILLUS INFECTION
UNITED STATES - JANUARY 1965-DECEMBER 1971

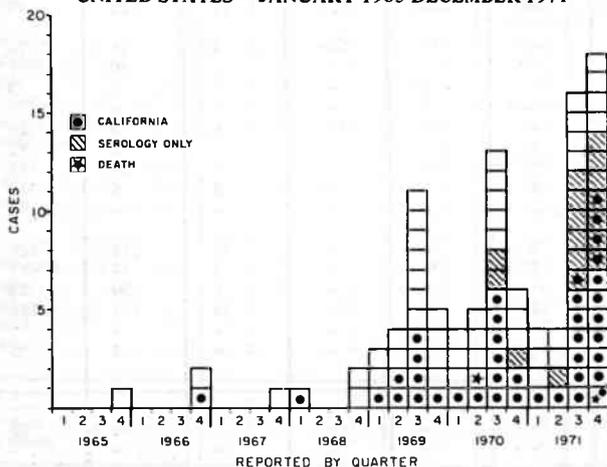


TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDING MARCH 18, 1972 AND MARCH 20, 1971 (11th WEEK)

AREA	ASEPTIC MENIN- GITIS	BRUCEL- LOSIS	CHICKEN- POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS		
						Primary including unspec. cases		Post In- fectious	Serum	Infectious	
						1972	1971	1972	1972	1972	1971
UNITED STATES	25	4	3,757	-	24	10	21	3	200	1,204	1,147
NEW ENGLAND	-	-	885	-	-	1	1	1	1	58	73
Maine	-	-	71	-	-	-	-	-	-	7	15
New Hampshire *	-	-	31	-	-	-	-	-	-	2	5
Vermont	-	-	30	-	-	-	-	-	-	4	9
Massachusetts	-	-	300	-	-	1	-	-	-	22	22
Rhode Island	-	-	151	-	-	-	1	-	-	9	9
Connecticut	-	-	302	-	-	-	-	1	1	14	13
MIDDLE ATLANTIC	3	-	233	-	-	2	-	1	73	246	275
Upstate New York	3	-	5	-	-	1	-	-	22	83	105
New York City	-	-	210	-	-	-	-	-	33	41	39
New Jersey	-	-	NN	-	-	-	-	-	12	63	74
Pennsylvania	-	-	18	-	-	1	-	1	6	59	57
EAST NORTH CENTRAL	4	-	1,391	-	-	2	10	1	35	210	160
Ohio	1	-	558	-	-	2	-	1	10	44	24
Indiana	1	-	142	-	-	-	-	-	1	5	16
Illinois	-	-	-	-	-	-	7	-	11	62	40
Michigan	2	-	691	-	-	-	2	-	13	86	74
Wisconsin	-	-	-	-	-	-	1	-	-	13	6
WEST NORTH CENTRAL	-	1	359	-	3	-	1	-	2	39	34
Minnesota	-	-	31	-	-	-	-	-	-	3	6
Iowa	-	-	303	-	-	-	-	-	1	5	5
Missouri	-	1	11	-	-	-	-	-	-	9	9
North Dakota	-	-	-	-	-	-	-	-	-	2	-
South Dakota	-	-	4	-	3	-	-	-	-	10	1
Nebraska	-	-	-	-	-	-	-	-	-	2	3
Kansas	-	-	10	-	-	-	1	-	1	8	10
SOUTH ATLANTIC	3	3	330	-	6	1	3	-	28	172	161
Delaware	-	-	11	-	-	-	-	-	3	1	6
Maryland	-	-	29	-	-	-	1	-	4	24	22
District of Columbia	-	-	18	-	-	-	-	-	1	2	2
Virginia	-	2	13	-	-	-	-	-	5	20	12
West Virginia	1	-	237	-	-	-	-	-	-	13	8
North Carolina	-	-	-	-	-	1	2	-	3	35	31
South Carolina	-	1	16	-	-	-	-	-	1	5	3
Georgia	-	-	6	-	2	-	-	-	-	18	26
Florida	2	-	-	-	4	-	-	-	11	54	51
EAST SOUTH CENTRAL	2	-	140	-	1	-	-	-	2	60	69
Kentucky	-	-	127	-	-	-	-	-	-	15	29
Tennessee	-	-	NN	-	-	-	-	-	-	35	27
Alabama	2	-	2	-	1	-	-	-	2	9	7
Mississippi	-	-	11	-	-	-	-	-	-	1	6
WEST SOUTH CENTRAL	4	-	13	-	13	1	2	-	14	152	73
Arkansas	-	-	-	-	-	1	2	-	-	6	2
Louisiana	-	-	-	-	4	-	-	-	-	7	4
Oklahoma	-	-	3	-	-	-	-	-	2	17	19
Texas	4	-	10	-	9	-	-	-	12	122	48
MOUNTAIN	-	-	123	-	1	-	-	-	8	55	74
Montana	-	-	10	-	-	-	-	-	-	10	1
Idaho	-	-	-	-	-	-	-	-	-	2	3
Wyoming	-	-	8	-	-	-	-	-	-	-	-
Colorado	-	-	21	-	-	-	-	-	6	8	24
New Mexico	-	-	17	-	1	-	-	-	-	2	12
Arizona	-	-	54	-	-	-	-	-	-	24	19
Utah	-	-	13	-	-	-	-	-	2	9	15
Nevada	-	-	-	-	-	-	-	-	-	-	-
PACIFIC	9	-	283	-	-	3	4	-	37	212	228
Washington	2	-	237	-	-	1	-	-	3	19	41
Oregon	-	-	1	-	-	-	-	-	1	30	23
California	7	-	-	-	-	2	4	-	33	157	158
Alaska *	-	-	45	-	-	-	-	-	-	4	1
Hawaii	-	-	-	-	-	-	-	-	-	2	5
Guam *	-	-	2	-	-	-	-	-	-	-	-
Puerto Rico	-	-	31	-	-	-	-	-	-	30	26
Virgin Islands	-	-	-	-	-	-	-	-	-	-	-

*Delayed reports: Aseptic meningitis: N.H. 1, Guam 3
Chickenpox: N.H. 38, Guam 2

Hepatitis, infectious: N.H. delete 1, Alaska 1, Guam 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDING MARCH 18, 1972 AND MARCH 20, 1971 (11th WEEK) - Continued

AREA	MALARIA		MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS		RUBELLA	
	1972	Cum. 1972	1972	Cumulative		1972	Cumulative		1972	Cum. 1972	1972	Cum. 1972
				1972	1971		1972	1971				
UNITED STATES	32	351	949	7,840	20,298	45	400	730	2,292	23,272	1,087	6,763
NEW ENGLAND	1	8	47	509	601	2	16	32	77	967	32	269
Maine	-	-	7	117	348	-	2	5	7	76	3	10
New Hampshire *	-	1	-	22	21	-	-	3	6	64	-	16
Vermont	-	-	2	19	28	-	-	-	3	72	-	8
Massachusetts *	-	4	6	75	121	-	7	13	25	249	18	137
Rhode Island	-	-	7	90	22	1	6	2	15	188	2	28
Connecticut	1	3	25	186	61	1	1	9	21	318	9	70
MIDDLE ATLANTIC	1	25	46	457	2,249	4	42	97	130	1,007	61	278
Upstate New York	1	2	2	38	193	1	11	29	NN	NN	7	38
New York City	-	5	9	83	1,353	2	10	14	51	428	6	63
New Jersey *	-	8	34	320	178	1	11	26	53	356	38	125
Pennsylvania	-	10	1	16	525	-	10	28	26	223	10	52
EAST NORTH CENTRAL	3	27	301	2,971	3,958	13	50	78	748	6,598	333	1,815
Ohio	1	3	12	90	1,531	3	18	21	131	1,043	15	133
Indiana	-	-	25	608	407	1	8	2	20	445	14	231
Illinois	1	9	146	996	1,010	5	10	31	122	1,248	85	315
Michigan	1	15	56	534	252	3	12	21	177	1,105	81	438
Wisconsin	-	-	62	743	758	1	2	3	298	2,757	138	698
WEST NORTH CENTRAL	4	21	61	330	1,581	3	34	67	392	4,403	37	319
Minnesota	-	2	1	11	24	-	7	9	33	435	-	21
Iowa	-	1	18	172	400	-	-	6	303	3,121	15	142
Missouri	4	7	34	103	535	1	6	26	24	148	19	62
North Dakota	-	1	6	26	84	-	-	2	8	194	-	9
South Dakota	-	-	2	4	89	1	2	3	7	35	-	6
Nebraska	-	3	-	6	10	1	6	7	7	126	3	30
Kansas	-	7	-	8	439	-	13	14	10	344	-	49
SOUTH ATLANTIC	11	41	47	732	2,250	5	85	105	118	1,895	108	614
Delaware	-	-	1	4	11	-	1	-	2	11	-	1
Maryland	-	-	-	6	22	-	9	11	6	91	2	16
District of Columbia	-	1	-	-	3	-	2	7	-	2	-	-
Virginia	-	2	4	20	696	1	17	11	12	229	8	36
West Virginia	-	1	7	48	128	-	8	2	56	1,087	16	168
North Carolina	6	17	1	17	735	1	16	16	NN	NN	1	3
South Carolina	4	8	2	110	253	1	8	10	1	81	-	19
Georgia	1	7	2	46	45	-	-	10	1	1	-	16
Florida	-	5	30	481	357	2	24	38	40	393	81	355
EAST SOUTH CENTRAL	-	113	37	358	2,961	1	28	58	123	1,213	23	362
Kentucky	-	111	-	141	1,337	-	6	17	41	207	2	129
Tennessee	-	-	17	58	247	1	13	21	77	749	20	158
Alabama	-	2	-	83	599	-	6	11	-	201	1	17
Mississippi	-	-	20	76	778	-	3	9	5	56	-	58
WEST SOUTH CENTRAL	3	36	95	516	4,986	3	52	61	184	1,919	104	600
Arkansas	-	2	-	6	71	-	6	2	26	60	-	12
Louisiana	1	1	2	21	564	-	16	20	5	71	2	13
Oklahoma	-	1	-	2	481	1	3	6	9	95	-	1
Texas	2	32	93	487	3,870	2	27	33	144	1,693	102	574
MOUNTAIN	2	27	85	640	774	-	6	25	94	1,228	63	380
Montana	-	1	1	12	268	-	-	1	7	101	-	16
Idaho	2	3	-	3	85	-	2	2	6	49	1	5
Wyoming	-	-	-	-	10	-	1	-	20	139	3	3
Colorado	-	18	31	267	157	-	-	4	26	328	41	200
New Mexico	-	1	2	47	144	-	1	2	12	301	-	34
Arizona	-	4	50	204	83	-	1	8	22	292	16	111
Utah	-	-	1	107	27	-	1	7	1	18	2	11
Nevada	-	-	-	-	-	-	-	1	-	-	-	-
PACIFIC	7	53	230	1,327	938	14	87	207	426	4,042	326	2,126
Washington	-	-	41	317	256	6	14	9	142	1,408	72	381
Oregon	-	4	1	10	77	-	5	12	56	524	9	161
California	5	43	183	955	580	8	67	184	208	2,012	241	1,546
Alaska	-	-	-	5	8	-	-	-	15	64	2	13
Hawaii	2	6	5	40	17	-	1	2	5	34	2	25
Guam *	-	-	1	1	---	-	3	---	-	-	1	4
Puerto Rico	1	1	25	130	59	1	1	-	12	180	1	2
Virgin Islands	-	-	-	-	2	-	2	-	1	85	1	3

*Delayed reports: Measles: Mass. delete 1
Meningococcal infections: Guam 1

Mumps: N.H. 2
Rubella: N.J. delete 2 (1971)

Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDING MARCH 18, 1972 AND MARCH 20, 1971 (11th WEEK) - Continued

AREA	TETANUS	TB (New Active)	TULAREMIA		TYPHOID FEVER		TYPHUS FEVER TICK-BORNE (Rky. Mt. spotted fever)		VENEREAL DISEASES		RABIES IN ANIMALS	
	1972	1972	1972	Cum. 1972	1972	Cum. 1972	1972	Cum. 1972	GONOR- RHEA 1972	SYPHILIS (Pri. & Sec.) 1972	1972	Cum. 1972
UNITED STATES	2	737	3	25	5	53	-	10	11,873	426	108	786
NEW ENGLAND	-	14	-	-	-	3	-	-	253	13	2	33
Maine	-	-	-	-	-	-	-	-	10	-	2	30
New Hampshire	-	1	-	-	-	-	-	-	6	1	-	-
Vermont	-	-	-	-	-	-	-	-	12	-	-	3
Massachusetts	-	4	-	-	-	3	-	-	122	4	-	-
Rhode Island	-	2	-	-	-	-	-	-	18	2	-	-
Connecticut	-	7	-	-	-	-	-	-	85	6	-	-
MIDDLE ATLANTIC	-	121	-	-	2	16	-	3	1,772	96	4	16
Upstate New York	-	11	-	-	1	4	-	-	283	5	2	11
New York City	-	37	-	-	-	8	-	-	749	69	-	-
New Jersey	-	33	-	-	-	3	-	1	288	19	-	-
Pennsylvania	-	40	-	-	1	1	-	2	452	3	2	5
EAST NORTH CENTRAL	-	106	-	1	-	2	-	-	1,381	27	10	77
Ohio *	-	31	-	1	-	1	-	-	535	8	4	26
Indiana	-	8	-	-	-	-	-	-	154	2	5	24
Illinois	-	40	-	-	-	-	-	-	127	5	1	10
Michigan	-	21	-	-	-	1	-	-	433	11	-	1
Wisconsin	-	6	-	-	-	-	-	-	132	1	-	16
WEST NORTH CENTRAL	-	36	-	6	1	2	-	1	792	2	20	180
Minnesota	-	9	-	-	-	-	-	-	162	-	3	52
Iowa	-	2	-	-	-	-	-	-	155	2	13	54
Missouri	-	15	-	6	1	2	-	-	184	-	2	16
North Dakota	-	1	-	-	-	-	-	-	10	-	2	45
South Dakota	-	1	-	-	-	-	-	-	61	-	-	1
Nebraska	-	2	-	-	-	-	-	-	102	-	-	-
Kansas	-	6	-	-	-	-	-	1	118	-	-	12
SOUTH ATLANTIC	-	157	-	4	-	5	-	2	2,332	153	10	92
Delaware	-	3	-	-	-	-	-	-	54	3	-	-
Maryland	-	28	-	-	-	-	-	-	263	16	-	1
District of Columbia	-	10	-	-	-	-	-	-	288	13	-	-
Virginia	-	25	-	4	-	3	-	1	311	34	1	31
West Virginia	-	6	-	-	-	-	-	-	35	-	4	19
North Carolina	-	19	-	-	-	-	-	1	244	8	-	-
South Carolina	-	-	-	-	-	-	-	-	194	16	-	-
Georgia	-	31	-	-	-	-	-	-	415	19	2	24
Florida	-	35	-	-	-	2	-	-	528	44	3	17
EAST SOUTH CENTRAL	-	70	1	2	-	4	-	1	998	32	29	220
Kentucky	-	17	-	-	-	1	-	-	114	6	9	84
Tennessee	-	20	1	1	-	1	-	1	420	13	17	113
Alabama	-	25	-	1	-	-	-	-	295	4	3	23
Mississippi	-	8	-	-	-	2	-	-	169	9	-	-
WEST SOUTH CENTRAL	-	115	2	9	1	2	-	3	1,578	54	28	125
Arkansas	-	16	1	8	1	2	-	-	51	2	4	21
Louisiana *	-	35	-	-	-	-	-	-	333	13	-	7
Oklahoma	-	-	1	1	-	-	-	1	128	3	13	48
Texas	-	64	-	-	-	-	-	2	1,066	36	11	49
MOUNTAIN	-	29	-	2	-	3	-	-	490	12	-	7
Montana	-	-	-	-	-	-	-	-	25	-	-	-
Idaho	-	1	-	-	-	-	-	-	28	-	-	-
Wyoming	-	-	-	-	-	-	-	-	4	1	-	-
Colorado	-	2	-	1	-	-	-	-	166	3	-	-
New Mexico	-	9	-	-	-	1	-	-	131	2	-	1
Arizona	-	14	-	1	-	1	-	-	66	1	-	6
Utah	-	3	-	-	-	1	-	-	25	3	-	-
Nevada	-	-	-	-	-	-	-	-	45	2	-	-
PACIFIC	2	89	-	1	1	16	-	-	2,277	37	5	36
Washington	-	13	-	-	-	-	-	-	205	1	-	-
Oregon	-	7	-	-	-	-	-	-	190	1	-	-
California	2	65	-	-	1	13	-	-	1,852	35	5	32
Alaska	-	-	-	1	-	-	-	-	30	-	-	4
Hawaii	-	4	-	-	-	3	-	-	-	-	-	-
Guam *	-	1	-	-	-	-	-	-	1	-	-	-
Puerto Rico	1	-	-	-	-	1	-	-	17	10	2	16
Virgin Islands	-	-	-	-	-	-	-	-	5	1	-	-

*Delayed reports: Tuberculosis: Ohio delete 1, Guam 3

Gonorrhea: La. delete 3

Morbidity and Mortality Weekly Report

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDING MARCH 18, 1972

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

Area	All Causes			Pneumonia and Influenza All Ages	Area	All Causes			Pneumonia and Influenza All Ages
	All Ages	65 years and over	Under 1 year			All Ages	65 years and over	Under 1 year	
NEW ENGLAND	667	414	38	38	SOUTH ATLANTIC	1,208	676	56	45
Boston, Mass.	189	103	15	8	Atlanta, Ga.	144	74	6	11
Bridgeport, Conn.	41	26	—	5	Baltimore, Md.	222	110	9	2
Cambridge, Mass.	24	15	—	4	Charlotte, N. C.	59	32	4	—
Fall River, Mass.	31	20	2	—	Jacksonville, Fla.	105	60	—	—
Hartford, Conn.	53	34	5	3	Miami, Fla.	94	52	1	2
Lowell, Mass.	30	22	3	3	Norfolk, Va.	51	17	17	3
Lynn, Mass.	24	20	1	—	Richmond, Va.	96	57	2	4
New Bedford, Mass.	29	17	1	2	Savannah, Ga.	56	27	2	6
New Haven, Conn.	43	27	2	2	St. Petersburg, Fla.	127	106	2	7
Providence, R. I.	65	39	4	3	Tampa, Fla.	68	44	4	4
Somerville, Mass.	12	7	—	—	Washington, D. C.	124	62	4	4
Springfield, Mass.	52	33	1	6	Wilmington, Del.	62	35	5	2
Waterbury, Conn.	29	19	2	1	EAST SOUTH CENTRAL	718	388	22	30
Worcester, Mass.	45	32	2	1	Birmingham, Ala.	114	63	1	1
MIDDLE ATLANTIC	3,095	1,814	113	140	Chattanooga, Tenn.	61	36	2	4
Albany, N. Y.	55	37	2	2	Knoxville, Tenn.	37	25	—	—
Allentown, Pa.	28	18	—	2	Louisville, Ky.	136	78	4	8
Buffalo, N. Y.	156	91	7	7	Memphis, Tenn.	153	72	6	5
Camden, N. J.	38	25	1	—	Mobile, Ala.	40	20	1	1
Elizabeth, N. J.	27	19	—	—	Montgomery, Ala.	46	19	2	5
Erie, Pa.	62	41	2	5	Nashville, Tenn.	131	75	6	6
Jersey City, N. J.	69	39	1	7	WEST SOUTH CENTRAL	1,278	683	67	42
Newark, N. J.	91	31	28	6	Austin, Tex.	53	38	2	4
New York City, N. Y. †	1,489	901	27	52	Baton Rouge, La.	74	37	5	4
Paterson, N. J.	52	27	4	4	Corpus Christi, Tex.	46	22	3	1
Philadelphia, Pa.	442	226	21	11	Dallas, Tex.	202	97	11	7
Pittsburgh, Pa.	162	92	5	9	El Paso, Tex.	46	23	4	1
Reading, Pa.	45	29	2	4	Fort Worth, Tex.	82	38	4	1
Rochester, N. Y.	114	82	3	15	Houston, Tex.	215	121	8	5
Schenectady, N. Y.	19	13	—	1	Little Rock, Ark.	43	24	2	2
Scranton, Pa.	35	19	2	2	New Orleans, La.	186	96	9	8
Syracuse, N. Y.	89	54	4	5	Oklahoma City, Okla.	108	59	6	1
Trenton, N. J.	52	25	1	1	San Antonio, Tex.	118	64	7	3
Utica, N. Y.	28	18	1	3	Shreveport, La.	52	35	2	1
Yonkers, N. Y.	42	27	2	4	Tulsa, Okla.	53	29	4	4
EAST NORTH CENTRAL	2,678	1,563	143	88	MOUNTAIN	490	281	21	26
Akron, Ohio	66	32	4	—	Albuquerque, N. Mex.	61	30	1	5
Canton, Ohio	37	23	—	2	Colorado Springs, Colo.	20	14	—	2
Chicago, Ill.	670	366	38	16	Denver, Colo.	108	59	5	5
Cincinnati, Ohio	223	114	11	10	Ogden, Utah	20	9	3	3
Cleveland, Ohio	240	138	10	3	Phoenix, Ariz.	128	79	8	3
Columbus, Ohio	141	82	11	2	Pueblo, Colo.	17	11	—	4
Dayton, Ohio	119	68	1	3	Salt Lake City, Utah	48	31	1	4
Detroit, Mich.	338	195	35	13	Tucson, Ariz.	88	48	3	—
Evansville, Ind.	42	23	2	5	PACIFIC	1,534	943	52	40
Flint, Mich.**	54	30	4	2	Berkeley, Calif.	17	11	1	—
Fort Wayne, Ind.	40	25	2	3	Fresno, Calif.	50	28	3	1
Gary, Ind.	41	23	—	3	Glendale, Calif.	34	23	—	1
Grand Rapids, Mich.	58	42	1	3	Honolulu, Hawaii	52	27	5	2
Indianapolis, Ind.	161	90	12	7	Long Beach, Calif.	120	77	4	1
Madison, Wis.	22	12	1	4	Los Angeles, Calif.	453	287	12	12
Millwaukee, Wis.	140	103	3	2	Oakland, Calif.	72	43	4	—
Peoria, Ill.	34	22	—	2	Pasadena, Calif.	30	20	2	2
Rockford, Ill.	39	28	—	1	Portland, Ore.	122	78	5	3
South Bend, Ind.	43	29	1	2	Sacramento, Calif.	67	40	2	1
Toledo, Ohio	122	87	7	5	San Diego, Calif.	120	70	2	2
Youngstown, Ohio	48	31	—	—	San Francisco, Calif.	170	101	6	4
WEST NORTH CENTRAL	845	534	50	26	San Jose, Calif.	31	19	1	—
Des Moines, Iowa	80	58	6	4	Seattle, Wash.	111	66	1	5
Duluth, Minn.	29	19	—	2	Spokane, Wash.	49	29	4	6
Kansas City, Kans.	25	12	5	1	Tacoma, Wash.	36	24	—	—
Kansas City, Mo.	145	81	11	1	Total	12,513	7,296	562	475
Lincoln, Nebr.	22	19	—	2	Expected Number	13,271	7,707	563	563
Minneapolis, Minn.	125	74	9	2	Cumulative Total	155,024	92,013	5,736	8,261
Omaha, Nebr.	76	49	1	—	(includes reported corrections for previous weeks)				
St. Louis, Mo.	214	140	11	10					
St. Paul, Minn.	76	55	1	4					
Wichita, Kans.	53	27	6	—					
Las Vegas, Nev.*	20	8	2	1					

*Mortality data are being collected from Las Vegas, Nev., for possible inclusion in this table, however, for statistical reasons, these data will be listed only and not included in the total, expected number, or cumulative total, until 5 years of data are collected.

†Delayed report for week ending March 11, 1972
 **Estimate based on average percent of divisional total

EPIDEMIOLOGIC NOTES AND REPORTS
SHIGELLOSIS - California

In January and February 1972, 78 cases of gastroenteritis due to *Shigella sonnei* were identified in San Francisco, California, by the San Francisco Department of Public Health; 47 cases were confirmed by culture. This represents a sharp increase over the 116 cases reported in all of 1971 and the 47 cases in all of 1970. Shigellosis is reportable under California law, although reporting is considered to be incomplete.

Cases were reported from all areas of the city, with no recognizable clustering, although there was some concentration in the lower-income areas. Reports of cases peaked at the end of January. No specific common source was found. None of the cases originated in foreign countries or in recently returned travelers, in contrast to the experience in previous years. Two cases occurred in food-handlers; however, no secondary cases could be traced to them. Multiple cases within households were frequent. Excessively poor household sanitation was not a common factor, but crowding was.

In nine households, the index cases were in children less than 12 years of age who attended nursery schools or

grammar schools, and three of these attended the same school. A total of 35 secondary cases occurred in the homes of the nine index cases and in the homes of their playmates and relatives. Of these, 12 were confirmed by culture. A total of 47 cases were in this younger age group. The preponderance of cases in the younger age group is related to the fact that many of the reports originated in two of the large pediatric clinics in the city.

In addition to extensive epidemiologic investigations and intensive health education activities, the Department of Public Health alerted physicians to suspect shigellosis in patients with apparent "viral enteritis" and requested that they stress principles of household sanitation when giving nursing instructions in the affected homes.

(Reported by Selma K. Dritz, M.D., Assistant Director, Bureau of Disease Control, Francis J. Curry, M.D., Director of Public Health, and John Garcia, Ph.D., Acting Chief, Microbiology Laboratories, San Francisco Department of Public Health.)

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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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