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Epidemiologic Notes and Reports

Influenza — Wisconsin, Nationwide

Wisconsin: Sporadic cases and local outbreaks of influenza-like illness have been reported in Wisconsin since early December 1979. Cases and outbreaks have been distributed throughout the state, occurring primarily among school children and young adults. Influenza B has been isolated from oropharyngeal or nasopharyngeal specimens obtained from 100 persons. Demographic data on 44 of these patients show that 18 (41%) were females, and 26 (59%) were males. Their ages ranged from 10 months to 50 years, with more than one-half being between 5 and 19 years of age.

Duration of symptoms in patients with confirmed influenza B ranged from 3-12 days, with a mean of 7 days. Symptoms included fever (100%), cough (75%), sore throat (68%), rhinorrhea (57%), headache (55%), myalgias (34%), nausea (21%), chest pain (16%), and diarrhea (frequency unknown). Reported complications of illness were otitis, conjunctivitis, pneumonitis, bronchitis, and laryngitis.

Nationwide: Since early November 1979, reports of influenza B virus isolations have been received from 19 states; Georgia, Missouri, Montana, and Texas have reported isolates since the last update (*1*). Outbreaks are generally scattered, although school absenteeism rates of 15%-30% or higher have been reported. Most illnesses have occurred in children and young adults, although 2 outbreaks in residences for the elderly have occurred.

Influenza A(H3N2) virus was isolated in Arkansas from a 59-year-old patient with onset of illness on January 15, 1980. This is the third H3N2 virus reported in the United States during this season.

Reported by G Sedmak, PhD, Milwaukee Bureau of Laboratories; JP Davis, MD, State Epidemiologist, DB Nelson, J Robertson, W Schell, Wisconsin State Dept of Health and Social Services; J Goins, Missouri State Dept of Social Services; M Skeels, PhD, Montana State Dept of Health and Environmental Services; R Couch, MD, Baylor College of Medicine, Houston, Texas; C Nolan, MD, E Moses, University of Arkansas for Medical Sciences, Little Rock; and State Epidemiologists from Arkansas, Georgia, Missouri, Montana, New York, Texas, and Washington; Immunization Div, Bur of State Services, World Health Organization Collaborating Center for Influenza, Virology Div, Bur of Laboratories, CDC.

Editorial Note: Influenza surveillance in Wisconsin incorporates both passive and active elements. Passive surveillance involves specimens which have been submitted for viral culture from sources other than those participating in the state's formal influenza surveillance program; examples of these sources include clinics and practicing physicians.

The active surveillance system uses a combination of virologic studies and indices of influenza-associated morbidity: 1) sentinel physicians, 2) nursing homes, 3) school absenteeism, and 4) industrial absenteeism. Each of 12 sentinel physicians is supplied with kits for collecting viral specimens; between November and early spring these physicians report the number of visits for viral, upper-respiratory infections and submit to the state laboratory specimens obtained from persons with febrile, acute respiratory disease.

Influenza — Continued

Eleven nursing homes regularly report the incidence of respiratory illness among residents. Thirty-five schools, a school district of 10,000 students, and industries in 4 areas of the state are monitored for absenteeism. Epidemiologic investigations are conducted of apparent outbreaks and persons from whom influenza isolates are obtained.

Reference

1. MMWR 1980;29:23.

Imported Measles — United States

Forty-nine cases of measles* were reported to have been imported into the United States during the last 6 months of 1979 by foreign arrivals incubating measles at the time of entry into the country. During this same period (weeks 26-52), a total of 2,620 measles cases were reported to CDC.

Twenty-eight of the imported cases occurred in travelers from 13 separate countries; these cases were subsequently the source of infection for 23 other persons.

The other 21 cases occurred in Southeast Asian refugees. These cases, in turn, were the source of 8 secondary cases. Finally, 13 other cases occurred in resettled Southeast Asian refugees who acquired disease while in the United States, making a total of 42 refugee-associated cases.

Reported by Immunization Div, Bur of State Services, CDC.

Editorial Note: These data were derived from a weekly telephone reporting system implemented by CDC during weeks 26-52 of 1979 to assist with measles surveillance. The system provided a means to determine the epidemiology of measles activity in each state, including the origin of many of the outbreaks during that period.

Considering the high incidence of measles in many other parts of the world, it is somewhat surprising that more imported cases were not reported. This may be due in part to the young age of infection in most other parts of the world. Though it is not possible to determine exactly how many cases occurred as a result of importations, there was little evidence of spread into the general population, probably because of the high immunization levels currently found in the United States and because of the lack of widespread social contact on the part of many of those coming into the United States. As indigenous measles continues to decrease, a larger proportion of total cases may occur in foreign arrivals.

*Excludes all military-associated cases.

International Notes

Immunization Program for Indochinese Refugees

Since late summer, approximately 14,000 Indochinese refugees have arrived in the United States each month. In the end of January, 1980, an immunization program was initiated in Southeast Asia for refugees departing for the United States. Such refugees will be immunized at the time medical-screening examinations are performed in transit centers in Bangkok, Thailand; Hong Kong; Kuala Lumpur, Malaysia; Singapore; and Manila, the Philippines.

Refugee Immunization – Continued

Measles, mumps, and rubella vaccines (MMR) and the first immunization in the series for diphtheria, tetanus, pertussis (DTP or Td) and for polio (TOPV) are being given according to the schedule indicated in Table 1. Refugees whose duration of stay in the transit center is prolonged may receive additional doses of vaccines, as recommended.

TABLE 1. Vaccines administered in transit centers, Southeast Asia

Age of individual	Vaccine*
2-14 months	DTP, TOPV
15 months-6 years	DTP, TOPV, MMR
7-13 years	Td, TOPV, MMR
14-19 years†	Td, TOPV, MMR†
≥20 years	Td

*Doses to be given: 1 of MMR and first of series for DTP or Td and TOPV; additional doses in series will depend on the time spent in transit centers.
†MMR will not be given to females age 14-19 years.

An immunization record created especially for the Indochinese refugees is being used. The record is completed at the time of vaccination. One copy is mailed to the local health department at the refugee's destination; another copy is maintained by CDC's Quarantine Division. The refugee retains a third copy, which bears instructions printed in 6 languages, for the completion of immunizations.

Reported by Quarantine Div, Bur of Epidemiology, and Immunization Div, Bur of State Services, CDC.

Editorial Note: There is currently little information regarding the fertility of females 14-19 years of age in this refugee population. Because of concerns regarding the use of live-virus vaccines in possibly pregnant women, females 14 to 19 years old are not being offered MMR vaccine in Southeast Asia. Therefore, U.S. public health officials should be aware of possible susceptibility in this subpopulation and the possible need for vaccination after arrival. Serologic surveys indicate that rubella susceptibility among women of childbearing age in Southeast Asian countries is at least equal to that in the United States (10%-15%) (*1*).

The goals of this immunization program are to 1) protect the refugees themselves from vaccine-preventable diseases, 2) facilitate the admission of refugee children to day-care centers and schools which have immunization requirements, 3) assist state and local health departments in assessing the need for further immunizations for refugees, and 4) help protect the resident U.S. population from the importation of vaccine-preventable diseases.

Reference

1. Desudchit P, Chatiyanonda K, Bhamornsathit S. Rubella antibody among Thai women of childbearing age. Southeast Asian J Trop Med Public Health 1978;9:312-6.

▲For additional copies of this article, write Center for Disease Control, Attn: Ferdinand Tedesco, Quarantine Division BE, Atlanta, Ga. 30333.

Epidemiologic Notes and Reports

Nosocomial *Listeria monocytogenes* Infections – United States

In October 1979, CDC learned of clusters of nosocomial *Listeria monocytogenes* infections occurring between July 1 and mid-October, 1979, involving 32 adult patients in 11 hospitals. The hospitals were located in 2 states, 10 in a northeastern state and the

Nosocomial Infections – Continued

other in the Southeast. A review of data submitted to CDC's National Nosocomial Infection Study (NNIS) subsequently identified 6 more such cases in 6 other hospitals in the same period.

Northeastern state: In September and October 1979, 26 patients with *L. monocytogenes* infections were identified in 10 northeastern hospitals in the same state. In comparable periods in 1977 and 1978, a total of 2 cases of listeriosis occurred in the same hospitals. *L. monocytogenes* serotype 4b was isolated from clinical specimens from 20 of the 26 patients. In the investigation, patients infected with *L. monocytogenes* serotype 4b were considered outbreak-associated cases (also called "case patients").

Patients associated with this outbreak tended to be elderly (mean = 69.7 years); 14 of the 20 were female. Five case patients had received chemotherapy or steroids for underlying malignancy, and 4 others had received steroids for other diseases before onset of infection. *Listeria* was isolated from blood specimens (from 14 patients), cerebrospinal fluid (CSF) (2), or blood and CSF (4). Six of the 9 case patients on steroids developed *Listeria* meningitis, a proportion significantly higher than in case patients not on steroid therapy. Seventeen of the case patients had complained of gastrointestinal symptoms (nausea, vomiting, diarrhea, abdominal pain, or anorexia) shortly before or at the time of clinical infection. The frequency of gastrointestinal complaints among the case patients was significantly higher than in patients with sporadic listeriosis identified through microbiology and medical-record review in the outbreak-associated hospitals ($p<.0003$).

(Continued on page 45)

TABLE I. Summary – cases of specified notifiable diseases, United States

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

DISEASE	4th WEEK ENDING		MEDIAN	CUMULATIVE, FIRST 4 WEEKS		
	January 26, 1980	January 27, 1979*	1975-1979	January 26, 1980	January 27, 1979*	MEDIAN 1975-1979
Aseptic meningitis	70	56	48	238	230	162
Brucellosis	3	3	3	7	7	7
Chickenpox	5,301	5,413	4,864	14,771	17,996	17,996
Diphtheria	–	–	2	–	11	11
Encephalitis: Primary (arthropod-borne & unspec.)	12	16	8	38	35	39
Post-infectious	3	1	4	5	4	12
Hepatitis, Viral: Type B	318	242	256	991	899	1,003
Type A	531	620	676	1,660	2,035	2,500
Type unspecified	217	202	176	695	728	644
Malaria	17	7	6	73	28	26
Measles (rubeola)	190	113	300	356	469	913
Meningococcal infections: Total	64	69	52	210	202	154
Civilian	64	69	52	209	202	154
Military	–	–	–	1	–	–
Mumps	303	303	614	862	936	2,146
Pertussis	20	30	22	58	118	110
Rubella (German measles)	72	134	219	178	383	594
Tetanus	–	1	1	4	1	3
Tuberculosis	549	536	536	1,586	1,798	1,790
Tularemia	–	4	1	5	13	9
Typhoid fever	2	7	7	8	18	18
Typhus fever, tick-borne (Rky. Mt. spotted)	1	1	1	1	5	4
Venereal diseases:						
Gonorrhea: Civilian	20,836	18,738	19,638	70,098	71,615	71,615
Military	504	645	577	1,666	2,216	2,203
Syphilis, primary & secondary: Civilian	594	427	458	1,917	1,781	1,814
Military	6	3	7	33	14	24
Rabies in animals	83	56	49	272	189	171

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1980		CUM. 1980
Anthrax	–	Poliomyelitis: Total	–
Botulism	1	Paralytic †	–
Congenital rubella syndrome (Ala. 1)	6	Psittacosis (Mass. 1)	6
Leprosy (Ups NY 1, Tex. 1)	8	Rabies in man	–
Leptospirosis (Hawaii 1)	3	Trichinosis	1
Plague	–	Typhus fever, flea-borne (endemic, murine)	–

*Delayed reports received for calendar year 1979 are used to update last year's weekly and cumulative totals.

†Delayed report: Polio, para.: Wash. +1 (1979)

TABLE III. Cases of specified notifiable diseases, United States, weeks ending January 26, 1980, and January 27, 1979, (4th week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKEN-POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-infectious	B	A	Unspecified		
	1980	1980	1980	1980	CUM. 1980	1980	1979*	1980	1980	1980	1980	1980	CUM. 1980
UNITED STATES	70	3	5,301	–	–	12	16	3	318	531	217	17	73
NEW ENGLAND	2	–	723	–	–	2	–	1	9	12	8	2	4
Maine	–	–	204	–	–	–	–	–	1	–	1	–	–
N.H.	–	–	90	–	–	–	–	–	–	2	–	–	–
Vt.	–	–	61	–	–	–	–	–	–	1	–	–	–
Mass.	–	–	121	–	–	1	–	–	4	3	7	1	3
R.I.	2	–	20	–	–	–	–	–	–	3	–	1	1
Conn.	–	–	227	–	–	1	–	1	4	3	–	–	–
MID. ATLANTIC	11	–	369	–	–	2	3	–	41	42	17	–	2
Upstate N.Y.	3	–	153	–	–	1	2	–	9	22	5	–	–
N.Y. City	2	–	66	–	–	1	1	–	12	8	6	–	2
N.J.†	6	–	NN	–	–	–	–	–	4	9	4	–	–
Pa.†	–	–	150	–	–	–	–	–	16	3	2	–	–
E.N. CENTRAL	10	–	2,675	–	–	1	1	–	46	59	19	–	1
Ohio	–	–	141	–	–	–	–	–	7	6	5	–	1
Ind.	1	–	274	–	–	–	–	–	6	4	1	–	–
Ill.	–	–	617	–	–	–	–	–	5	19	5	–	–
Mich.	9	–	1,191	–	–	1	1	–	28	29	8	–	–
Wis.	–	–	452	–	–	–	–	–	–	1	–	–	–
W.N. CENTRAL	5	–	575	–	–	1	–	2	15	19	10	–	2
Minn.	–	–	–	–	–	–	–	–	7	6	–	–	1
Iowa	1	–	317	–	–	1	–	–	2	2	4	–	1
Mo.	3	–	90	–	–	–	–	–	6	8	6	–	–
N. Dak.†	–	–	7	–	–	–	–	–	–	–	–	–	–
S. Dak.†	1	–	13	–	–	–	–	1	–	–	–	–	–
Nebr.	–	–	24	–	–	–	–	–	–	2	–	–	–
Kans.	–	–	124	–	–	–	–	1	–	1	–	–	–
S. ATLANTIC	17	2	375	–	–	2	9	–	74	84	41	2	8
Del.	–	–	9	–	–	–	–	–	–	–	–	–	–
Md.	–	–	24	–	–	–	7	–	14	8	16	–	–
D.C.	–	–	6	–	–	–	–	–	6	6	1	–	–
Va.†	4	–	8	–	–	–	–	–	24	11	6	1	3
W. Va.	1	–	171	–	–	–	–	–	–	5	1	–	1
N.C.	6	–	NN	–	–	2	2	–	5	7	8	–	1
S.C.	3	2	23	–	–	–	–	–	7	7	1	–	–
Ga.	–	–	3	–	–	–	–	–	12	20	–	–	–
Fla.†	3	–	131	–	–	–	–	–	6	20	8	1	3
E.S. CENTRAL	7	–	204	–	–	2	1	–	21	41	4	–	–
Ky.	–	–	191	–	–	–	–	–	2	11	1	–	–
Tenn.	3	–	NN	–	–	2	1	–	9	17	1	–	–
Ala.	4	–	3	–	–	–	–	–	8	13	2	–	–
Miss.	–	–	10	–	–	–	–	–	2	–	–	–	–
W.S. CENTRAL	4	–	166	–	–	2	1	–	35	98	49	–	–
Ark.	–	–	4	–	–	–	–	–	3	2	7	–	–
La.	–	–	NN	–	–	–	1	–	5	24	–	–	–
Okla.	1	–	–	–	–	–	–	–	10	10	7	–	–
Tex.	3	–	162	–	–	2	–	–	17	62	35	–	–
MOUNTAIN	1	–	141	–	–	–	–	–	11	72	33	2	8
Mont.†	–	–	43	–	–	–	–	–	–	10	–	–	–
Idaho	–	–	–	–	–	–	–	–	–	6	–	–	–
Wyo.	–	–	–	–	–	–	–	–	–	–	–	–	1
Colo.†	1	–	94	–	–	–	–	–	5	9	1	2	3
N. Mex.	–	–	1	–	–	–	–	–	–	–	–	–	–
Ariz.	–	–	NN	–	–	–	–	–	6	30	26	–	3
Utah	–	–	3	–	–	–	–	–	–	13	6	–	–
Nev.	–	–	–	–	–	–	–	–	–	4	–	–	1
PACIFIC	13	1	73	–	–	–	1	–	66	104	36	11	48
Wash.†	2	–	65	–	–	–	–	–	5	11	3	3	4
Oreg.	1	–	3	–	–	–	–	–	2	11	–	1	1
Calif.†	10	1	–	–	–	–	1	–	56	81	33	7	42
Alaska	–	–	1	–	–	–	–	–	–	1	–	–	1
Hawaii	–	–	4	–	–	–	–	–	3	–	–	–	–
Guam	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–
P.R.	–	–	18	–	–	–	–	–	3	15	17	–	–
V.I.	–	–	–	–	–	–	–	–	–	–	–	–	–
Pac. Trust Terr.	NA	NA	NA	NA	–	NA	–	–	NA	NA	NA	NA	–

NN: Not notifiable. NA: Not available.

*Delayed reports received for 1979 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: Asep. meng.: Pa. +5, Fla. +1; Chickenpox: Pa. +175, Fla. +64, Colo. +2, Calif. +40; Enceph.: Pa. +3; Hep. B: Pa. +25, N.J. +1, Fla. +4, Colo. +1, Wash. +2; Hep. A: Pa. +18, N.J. –1, N.Dak. +4, S.Dak. –1, Fla. +6, Mont. +3, Colo. –1, Wash. +3; Hep. unsp: Pa. +2, N.J. –2, Va. –1, Fla. +3, Colo. +1; Malaria: Pa. +3.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending January 26, 1980, and January 27, 1979, (4th week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1980	CUM. 1980	CUM. 1979*	1980	CUM. 1980	CUM. 1979*	1980	CUM. 1980	1980	1980	CUM. 1980	CUM. 1980
UNITED STATES	190	356	469	64	210	202	303	862	20	72	178	4
NEW ENGLAND	8	23	2	2	6	7	47	120	2	13	20	–
Maine	–	–	–	–	–	–	10	38	2	2	2	–
N.H.	2	6	–	–	–	1	–	–	–	3	9	–
Vt.	6	16	2	–	–	–	–	–	–	–	–	–
Mass.†	–	–	–	2	3	5	14	30	–	1	2	–
R.I.	–	1	–	–	–	–	1	6	–	–	–	–
Conn.	–	–	–	–	3	1	22	46	–	7	7	–
MID. ATLANTIC	10	34	22	9	29	29	30	83	1	5	11	1
Upstate N.Y.	3	9	10	4	13	11	1	5	1	5	6	–
N.Y. City	7	25	9	3	6	9	3	12	–	–	2	–
N.J.	–	–	–	1	7	7	5	22	–	–	2	–
Pa.†	–	–	3	1	3	2	21	44	–	–	1	1
E.N. CENTRAL	20	56	187	7	20	12	107	299	2	13	51	–
Ohio	6	8	2	3	8	–	38	103	–	–	–	–
Ind.†	–	1	12	–	2	4	5	13	–	4	13	–
Ill.	2	4	102	–	2	–	18	41	–	1	2	–
Mich.	5	20	52	4	8	7	27	89	2	6	28	–
Wis.	7	23	19	–	–	1	19	53	–	2	8	–
W.N. CENTRAL	11	37	49	–	4	5	7	53	–	8	14	1
Minn.	10	18	–	–	1	–	2	3	–	2	2	1
Iowa	–	1	–	–	–	2	3	8	–	–	–	–
Mo.	1	16	48	–	2	2	2	31	–	1	4	–
N. Dak.	–	–	1	–	1	–	–	–	–	–	1	–
S. Dak.	–	–	–	–	–	–	–	–	–	–	–	–
Nebr.	–	2	–	–	–	–	–	6	–	–	–	–
Kans.	–	–	–	–	–	1	–	5	–	5	7	–
S. ATLANTIC	96	109	26	12	44	73	55	110	9	10	19	1
Del.	–	–	–	–	–	2	1	10	–	–	–	–
Md.	–	1	1	–	7	4	33	43	2	–	–	–
D.C.	–	–	–	–	–	–	–	–	–	–	–	–
Va.	11	12	2	2	6	9	7	10	–	–	1	–
W. Va.	2	3	8	2	3	2	1	9	–	2	5	–
N.C.	–	1	–	–	7	9	6	23	–	–	1	–
S.C.	–	–	–	2	5	8	2	2	–	8	8	1
Ga.	73	73	–	3	6	13	–	–	7	–	–	–
Fla.†	10	19	15	3	10	26	5	13	–	–	4	–
E.S. CENTRAL	16	25	8	7	21	16	21	58	–	4	10	–
Ky.	9	17	5	–	5	7	17	46	–	–	3	–
Tenn.	1	1	–	4	6	8	–	2	–	4	7	–
Ala.	6	6	2	2	9	1	1	1	–	–	–	–
Miss.	–	1	1	1	1	–	3	9	–	–	–	–
W.S. CENTRAL	2	4	62	11	18	24	5	32	2	1	3	–
Ark.	–	–	5	2	2	3	1	2	–	–	–	–
La.	–	–	–	1	2	5	–	–	–	–	–	–
Okla.	1	1	–	1	1	2	–	–	1	–	–	–
Tex.	1	3	57	7	13	14	4	30	1	1	3	–
MOUNTAIN	9	19	21	3	14	13	14	50	2	–	3	–
Mont.	–	–	6	–	1	2	13	16	–	–	–	–
Idaho	–	–	–	1	1	1	–	1	–	–	–	–
Wyo.	–	–	–	–	1	–	–	–	–	–	–	–
Colo.	–	–	–	–	6	–	–	8	1	–	–	–
N. Mex.	–	–	2	–	–	2	–	–	–	–	–	–
Ariz.	–	9	–	2	3	6	–	9	1	–	–	–
Utah	9	9	11	–	1	1	–	15	–	–	1	–
Nev.	–	1	2	–	1	1	1	1	–	–	2	–
PACIFIC	18	49	92	13	54	23	17	57	2	18	47	1
Wash.†	9	10	50	6	23	3	–	12	–	2	5	–
Oreg.	–	–	–	–	3	1	5	16	–	–	3	–
Calif.	9	37	42	7	28	18	11	27	2	16	39	1
Alaska	–	–	–	–	–	–	1	2	–	–	–	–
Hawaii	–	2	–	–	–	1	–	–	–	–	–	–
Guam	NA	–	–	–	–	–	NA	–	NA	NA	–	–
P.R.	1	1	2	1	1	–	4	5	–	–	–	1
V.I.	–	–	1	–	–	–	–	–	–	–	–	–
Pac. Trust Terr.	NA	–	2	–	–	1	NA	–	NA	NA	–	–

NA: Not available.

*Delayed reports received for 1979 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: Measles: Ind. –1, Fla. –1; Men. inf.: Pa. +1; Mumps: Mass. +15, Pa. +4, Wash. +1; Pertussis: Pa. +2, Wash. –2; Rubella: Fla. +1.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending January 26, 1980, and January 27, 1979, (4th week)

REPORTING AREA	TUBERCULOSIS		TULAREMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1980	CUM. 1980	CUM. 1980	1980	CUM. 1980	1980	CUM. 1980	1980	CUM. 1980	CUM. 1979*	1980	CUM. 1980	CUM. 1979*	CUM. 1980
UNITED STATES	549	1,586	5	2	8	1	1	20,836	70,098	71,615	594	1,917	1,781	272
NEW ENGLAND	13	51	–	–	1	–	–	587	2,188	1,870	12	50	38	1
Maine	1	1	–	–	–	–	–	43	145	139	–	–	–	1
N.H.	–	1	–	–	–	–	–	27	85	61	–	–	1	–
Vt.	1	2	–	–	–	–	–	14	66	29	–	–	–	–
Mass.	4	21	–	–	–	–	–	157	758	766	11	27	28	–
R.I.	1	8	–	–	1	–	–	32	96	150	–	2	–	–
Conn.	6	18	–	–	–	–	–	314	1,038	725	1	21	9	–
MID. ATLANTIC	106	273	–	–	–	–	–	1,385	6,607	6,355	79	283	272	–
Upstate N.Y.	20	36	–	–	–	–	–	370	835	514	7	13	19	–
N.Y. City	42	119	–	–	–	–	–	250	2,887	2,715	58	220	189	–
N.J.	17	57	–	–	–	–	–	187	1,331	1,006	8	27	40	–
Pa.†	27	61	–	–	–	–	–	578	1,554	2,120	6	23	24	–
E.N. CENTRAL	65	177	–	–	2	–	–	3,149	10,265	11,409	13	127	276	27
Ohio	7	33	–	–	–	–	–	741	3,854	3,185	–	29	51	–
Ind.	10	28	–	–	–	–	–	690	1,303	523	–	16	5	4
Ill.†	26	82	–	–	–	–	–	370	1,253	4,019	3	51	185	12
Mich.	17	22	–	–	2	–	–	800	2,505	2,649	10	24	25	–
Wis.†	5	12	–	–	–	–	–	548	1,350	1,033	–	7	10	11
W.N. CENTRAL	9	57	3	–	–	–	–	960	3,302	3,372	5	16	16	76
Minn.	1	12	–	–	–	–	–	237	634	626	3	4	5	12
Iowa	3	5	–	–	–	–	–	127	423	462	–	1	3	24
Mo.	4	27	2	–	–	–	–	400	1,332	1,228	2	9	4	25
N. Dak.	–	2	–	–	–	–	–	12	45	63	–	1	–	9
S. Dak.	–	–	–	–	–	–	–	26	96	125	–	–	–	3
Nebr.	–	–	1	–	–	–	–	48	242	194	–	1	–	–
Kans.	1	11	–	–	–	–	–	110	530	674	–	–	4	3
S. ATLANTIC	111	347	1	2	2	1	1	5,589	18,204	16,992	174	457	473	17
Del.	2	2	–	–	–	–	–	66	268	295	–	1	4	–
Md.	5	48	1	–	–	–	–	779	1,690	2,247	6	34	31	–
D.C.	14	16	–	–	–	–	–	449	1,221	1,163	12	33	35	–
Va.	15	47	–	–	–	–	–	426	1,565	1,594	17	38	50	–
W. Va.†	–	23	–	–	–	–	–	73	243	266	15	15	14	–
N.C.	15	57	–	–	–	1	1	765	2,740	2,579	23	42	54	–
S.C.	8	33	–	–	–	–	–	388	1,799	1,415	6	11	22	4
Ga.	7	25	–	–	–	–	–	920	3,411	2,793	37	122	121	9
Fla.	45	96	–	2	2	–	–	1,723	5,267	4,640	58	161	142	4
E.S. CENTRAL	76	163	1	–	–	–	–	1,300	5,491	6,816	63	176	109	16
Ky.	17	28	–	–	–	–	–	312	948	938	3	14	11	8
Tenn.	28	39	1	–	–	–	–	334	2,063	2,364	27	83	42	8
Ala.	11	43	–	–	–	–	–	279	1,182	2,137	9	24	24	–
Miss.†	20	53	–	–	–	–	–	375	1,298	1,377	24	55	32	–
W.S. CENTRAL	63	105	–	–	–	–	–	2,437	8,886	10,187	100	395	258	98
Ark.	–	–	–	–	–	–	–	168	648	816	6	9	12	14
La.	11	36	–	–	–	–	–	510	1,084	1,563	16	83	17	–
Okla.	8	11	–	–	–	–	–	274	1,064	921	1	3	15	14
Tex.	44	58	–	–	–	–	–	1,485	6,090	6,887	77	300	224	70
MOUNTAIN	14	80	–	–	–	–	–	794	2,742	2,995	10	33	24	4
Mont.	1	1	–	–	–	–	–	NA	61	187	NA	–	2	–
Idaho	2	3	–	–	–	–	–	27	111	127	1	2	1	–
Wyo.	–	–	–	–	–	–	–	14	85	77	–	2	2	–
Colo.†	3	39	–	–	–	–	–	194	692	772	5	15	11	–
N. Mex.	4	15	–	–	–	–	–	132	480	400	2	7	6	–
Ariz.	3	19	–	–	–	–	–	227	672	828	–	–	–	4
Utah	1	1	–	–	–	–	–	48	149	147	2	4	–	–
Nev.	–	2	–	–	–	–	–	152	492	457	–	3	2	–
PACIFIC	92	333	–	–	3	–	–	4,635	12,413	11,619	138	380	315	33
Wash.	10	28	–	–	–	–	–	320	1,086	921	–	–	15	–
Oreg.	6	26	–	–	–	–	–	285	757	804	1	6	15	–
Calif.	73	271	–	–	3	–	–	3,907	10,164	9,393	137	370	282	33
Alaska	–	–	–	–	–	–	–	70	265	355	–	1	1	–
Hawaii	3	8	–	–	–	–	–	53	141	146	–	3	2	–
Guam	NA	–	–	NA	–	NA	–	NA	–	6	NA	–	–	–
P.R.	4	4	–	–	–	–	–	52	103	141	20	31	34	3
V.I.	–	–	–	–	–	–	–	2	7	13	–	3	–	–
Pac. Trust Terr.	NA	–	–	NA	–	NA	–	NA	–	34	NA	–	–	–

NA: Not available.

*Delayed reports received for 1979 are not shown below but are used to update last year's weekly and cumulative totals.

†The following delayed reports will be reflected in next week's cumulative totals: TB: Pa. +14, Miss. +58, Colo. –7; GC: Pa. +704, Ill. +1666, Wis. –2; Syphilis: Pa. +15; An. rabies: W.Va. +1.

TABLE IV. Deaths in 121 U.S. cities,* week ending January 26, 1980 (4th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	>65	45-64	25-44	<1	
NEW ENGLAND	747	481	176	34	25	49
Boston, Mass.	193	108	47	10	15	15
Bridgeport, Conn.	55	37	11	6	1	5
Cambridge, Mass.	25	17	8	–	–	1
Fall River, Mass.	37	28	9	–	–	–
Hartford, Conn.	65	39	19	4	–	5
Lowell, Mass.	29	20	6	–	–	5
Lynn, Mass.	18	11	6	1	–	2
New Bedford, Mass.	24	19	5	–	–	1
New Haven, Conn.	82	53	18	5	3	2
Providence, R.I.	92	59	25	2	2	6
Somerville, Mass.	7	4	2	1	–	–
Springfield, Mass.	46	33	6	3	2	1
Waterbury, Conn.	22	10	8	2	1	–
Worcester, Mass.	52	43	6	–	1	6
MID. ATLANTIC	2,948	1,962	665	173	68	157
Albany, N.Y.	53	30	14	2	4	1
Allentown, Pa.	24	17	7	–	–	1
Buffalo, N.Y.	111	72	27	5	3	5
Camden, N.J.	34	23	7	3	1	–
Elizabeth, N.J.	31	21	6	2	1	1
Erie, Pa.†	33	25	3	–	3	2
Jersey City, N.J.	39	23	12	3	–	2
Newark, N.J.	66	33	19	3	4	8
N.Y. City, N.Y.	1,682	1,114	360	132	34	76
Paterson, N.J.	31	23	6	–	2	2
Philadelphia, Pa.†	377	257	88	14	9	16
Pittsburgh, Pa.†	113	60	45	3	3	5
Reading, Pa.	32	24	7	1	–	9
Rochester, N.Y.	105	76	23	–	3	10
Schenectady, N.Y.	24	20	3	–	–	1
Scranton, Pa.†	29	23	6	–	–	1
Syracuse, N.Y.	88	63	18	2	1	7
Trenton, N.J.	25	19	5	1	–	2
Utica, N.Y.	25	20	3	1	–	4
Yonkers, N.Y.	26	19	6	1	–	4
E.N. CENTRAL	2,371	1,506	566	137	86	75
Akron, Ohio	73	48	21	1	2	–
Canton, Ohio	42	29	8	3	2	–
Chicago, Ill.	536	335	130	40	13	9
Cincinnati, Ohio	157	107	38	3	6	11
Cleveland, Ohio	175	101	58	8	1	5
Columbus, Ohio	135	87	34	8	5	4
Dayton, Ohio	100	57	27	10	3	3
Detroit, Mich.	305	180	77	26	15	6
Evansville, Ind.	41	31	7	1	1	5
Fort Wayne, Ind.	56	36	15	2	2	3
Gary, Ind.	20	8	5	3	–	–
Grand Rapids, Mich.	62	40	9	4	5	5
Indianapolis, Ind.	185	110	47	11	7	5
Madison, Wis.	34	22	7	1	2	6
Milwaukee, Wis.	166	115	34	5	7	5
Peoria, Ill.	42	29	6	1	4	2
Rockford, Ill.	48	36	5	2	3	4
South Bend, Ind.	36	24	11	1	–	–
Toledo, Ohio	97	68	18	3	4	–
Youngstown, Ohio	61	43	9	4	4	2
W.N. CENTRAL	763	485	169	41	40	32
Des Moines, Iowa	51	30	10	2	3	2
Duluth, Minn.	18	14	2	1	1	–
Kansas City, Kans.	39	24	8	3	3	5
Kansas City, Mo.	131	87	31	5	6	4
Lincoln, Nebr.	33	23	9	1	–	1
Minneapolis, Minn.	87	54	22	4	4	–
Omaha, Nebr.	93	61	12	7	10	4
St. Louis, Mo.	180	115	48	5	6	8
St. Paul, Minn.	56	40	7	4	4	–
Wichita, Kans.	75	37	20	9	3	8
S. ATLANTIC	1,346	779	404	83	43	72
Atlanta, Ga.	186	97	64	16	6	10
Baltimore, Md.	223	129	61	14	8	5
Charlotte, N.C.	65	40	15	1	5	5
Jacksonville, Fla.	110	63	36	5	3	7
Miami, Fla.	91	50	30	7	3	2
Norfolk, Va.	54	33	16	2	1	4
Richmond, Va.	93	52	33	5	1	8
Savannah, Ga.	51	22	20	6	2	2
St. Petersburg, Fla.	90	72	12	3	1	5
Tampa, Fla.	102	65	26	5	4	11
Washington, D.C.	226	123	75	16	7	11
Wilmington, Del.††	55	33	16	3	2	2
E.S. CENTRAL	860	488	238	52	39	35
Birmingham, Ala.	131	85	30	8	1	2
Chattanooga, Tenn.	84	56	22	4	2	6
Knoxville, Tenn.	45	26	16	2	–	2
Louisville, Ky.	105	58	30	10	6	11
Memphis, Tenn.	211	114	52	5	21	1
Mobile, Ala.	93	52	30	7	1	3
Montgomery, Ala.	75	31	24	7	4	3
Nashville, Tenn.	116	66	34	9	4	7
W.S. CENTRAL	1,306	758	321	100	71	52
Austin, Tex.	68	39	15	4	7	8
Baton Rouge, La.	44	17	15	6	1	2
Corpus Christi, Tex.	28	15	8	2	3	–
Dallas, Tex.	211	130	53	15	3	1
El Paso, Tex.	67	43	14	6	4	7
Fort Worth, Tex.	99	65	17	6	8	5
Houston, Tex.	164	68	50	20	20	2
Little Rock, Ark.	109	60	27	11	3	6
New Orleans, La.	130	77	32	8	8	–
San Antonio, Tex.	207	128	49	12	9	6
Shreveport, La.	80	43	21	8	3	4
Tulsa, Okla.	99	73	20	2	2	11
MOUNTAIN	594	383	137	28	26	23
Albuquerque, N.Mex.	31	20	8	2	–	6
Colo. Springs, Colo.	39	30	6	–	1	3
Denver, Colo.	123	84	26	9	2	5
Las Vegas, Nev.	63	39	14	7	1	3
Ogden, Utah	19	11	4	–	4	3
Phoenix, Ariz.	156	107	35	5	4	2
Pueblo, Colo.	22	17	3	1	–	1
Salt Lake City, Utah	48	21	14	2	8	–
Tucson, Ariz.	93	54	27	2	6	–
PACIFIC	2,008	1,316	463	95	55	98
Berkeley, Calif.	13	10	1	2	–	–
Fresno, Calif.	82	55	19	1	3	5
Glendale, Calif.	36	29	7	–	–	2
Honolulu, Hawaii	70	39	22	4	4	6
Long Beach, Calif.	124	91	25	3	–	6
Los Angeles, Calif.	650	422	145	40	11	28
Oakland, Calif.	85	48	24	4	5	7
Pasadena, Calif.	30	19	5	3	1	2
Portland, Oreg.	160	105	35	8	5	–
Sacramento, Calif.	63	42	14	1	3	4
San Diego, Calif.††	151	96	37	7	5	2
San Francisco, Calif.	137	87	36	6	4	5
San Jose, Calif.	145	85	34	9	12	9
Seattle, Wash.	154	107	38	2	1	2
Spokane, Wash.	63	52	8	3	–	15
Tacoma, Wash.	45	29	13	2	1	5
TOTAL	12,943	8,158	3,139	743	453	593

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

**Pneumonia and influenza

†Because of changes in reporting methods in these 4 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Data not available. Figures are estimates based on average percent of regional totals.

Nosocomial Infections – Continued

The 20 case patients were distributed among 8 hospitals. Case-control studies failed to detect any significant common exposure except for the more frequent ingestion of antacids among the case patients. At least 4 different brands of antacids were used, however.

In April 1979, a laboratory-proficiency test (LPT) was conducted in the state where this outbreak occurred; *L. monocytogenes* was among several organisms tested. Improved laboratory proficiency alone could not have accounted for this outbreak, however, since 1) 97% of the laboratories participating in the LPT correctly identified *Listeria*, 2) there was no variation in the frequency of isolation of microorganisms with which *Listeria* is commonly confused, either in the individual hospitals or in the state laboratory, where some strains were sent, and 3) 77% of the case isolates were serotype 4b, but only 42% of *Listeria* organisms in a previous 5-year period were of this serotype.

Southeastern state: An outbreak of listeriosis, involving 1 woman and 5 men, occurred among renal transplant patients in a southeastern hospital. Four had received transplants in August or September 1979 and had onset of disease shortly thereafter. Two other patients had transplants before July 1979; 1 was admitted for listeriosis and the other for chronic rejection. All 6 patients developed infections with *L. monocytogenes* between August and mid-October 1979. Five cases were nosocomial, and the 1 possibly community-acquired case had repeated exposure to the hospital's transplantation clinic before acquiring disease. *L. monocytogenes* serotype 1b was isolated from 4 patients (blood in 1, CSF in 1, and blood and CSF in 2). *L. monocytogenes* organisms of serotype 1a and 4b were recovered from CSF specimens from the other 2 patients.

Comparison of case patients with control patients, matched for date of transplantation, revealed that pulmonary infiltrates consistent with pneumonia occurred more frequently among the cases either before or at the time of the diagnosis of *Listeria* infection. However, Gram stain, cultures of expectorated sputum, and bronchial washings did not confirm that *L. monocytogenes* was the etiologic agent for the pneumonia. Further case-control analysis failed to demonstrate significant differences in age, sex, or medications between the 2 groups.

National surveillance: When CDC learned of these outbreaks, monthly surveillance reports from NNIS hospitals were reviewed for nosocomial infections with *L. monocytogenes*. Excluding the epidemic cases from the 2 involved states, only 6 cases of nosocomial listeriosis were noted among 83 NNIS hospitals. Participants in NNIS were further surveyed by telephone to identify additional possible cases of disease which had not been reported, but only 2 more cases of listeriosis were identified. In comparison with reports from previous years, more cases of *L. monocytogenes* infections were identified in NNIS hospitals in 1979 (Table 2), but 7 of the 16 reports for that year were from 2 of the outbreak-associated hospitals described above.

Reported by Hospital Infections Br, and Special Pathogens Br, Bacterial Diseases Div, Bur of Epidemiology, Bacterial Immunology Br, Bacteriology Div, Bur of Laboratories, CDC.

TABLE 2. Nosocomial *Listeria monocytogenes* infections, by year, NNIS, January 1, 1975-October 30, 1979

Year	Cases
1975	8
1976	9
1977	6
1978	7
1979	16*

*Only 2 of the outbreak-associated hospitals were participants in NNIS.

Nosocomial Infections – Continued

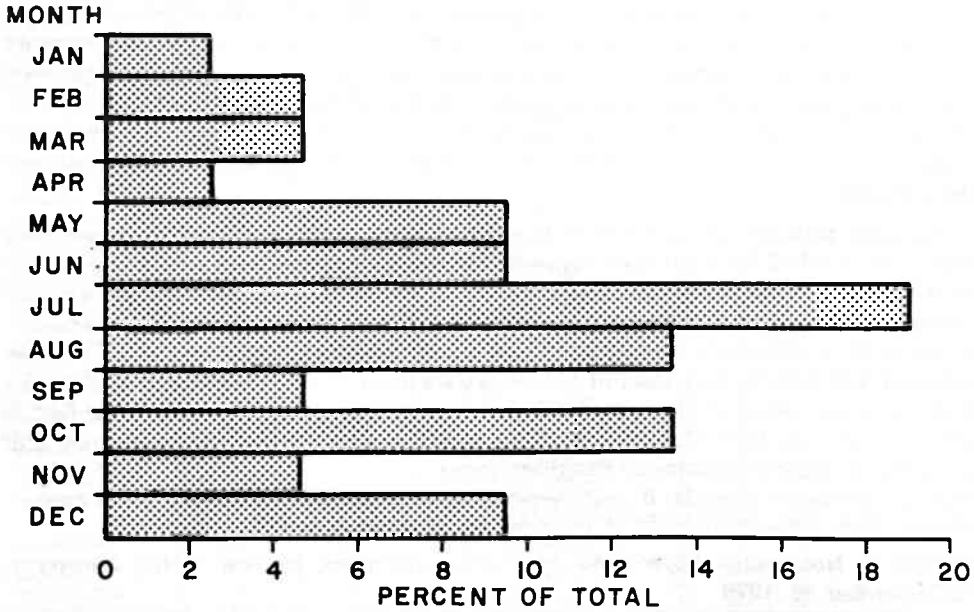
Editorial Note: The simultaneous occurrence of outbreaks of this unusual infection among several hospitals initially suggested possible exposure to a contaminated commercial product with widespread distribution. The epidemiologic characteristics, however, were different among the cases in the 2 involved states, and a common product was not identified.

The outbreak in the southeastern state was limited to the renal transplant unit of 1 hospital and involved only immunocompromised patients. In that investigation, neither the source nor the mode of transmission was identified.

The outbreaks involving 8 hospitals in the northeastern state appear to be unusual. Although an intensive investigation has failed to identify a common exposure to medical devices or products, the prominence of gastrointestinal symptoms at or before clinical onset of *Listeria* infection and the significant association of antacid therapy with disease raise the possibility of an enteric exposure. Investigation is continuing in this area.

NNIS surveillance reports did not lend supporting evidence for a greater problem with nosocomial listeriosis. Review of NNIS data for a 5-year period, however, did show a predominance of reported cases between May and October (Figure 1). The clusters of epidemic cases in the 2 states, as well as the cases identified in NNIS hospitals, raise the possibility that there is a seasonal pattern to this disease, with peaks in incidence occurring in the summer and fall.

FIGURE 1. Nosocomial *Listeria monocytogenes* infections reported through NNIS, January 1975 through October 1979*



*Excludes epidemic cases from July-October 1979.

Surveillance Summary

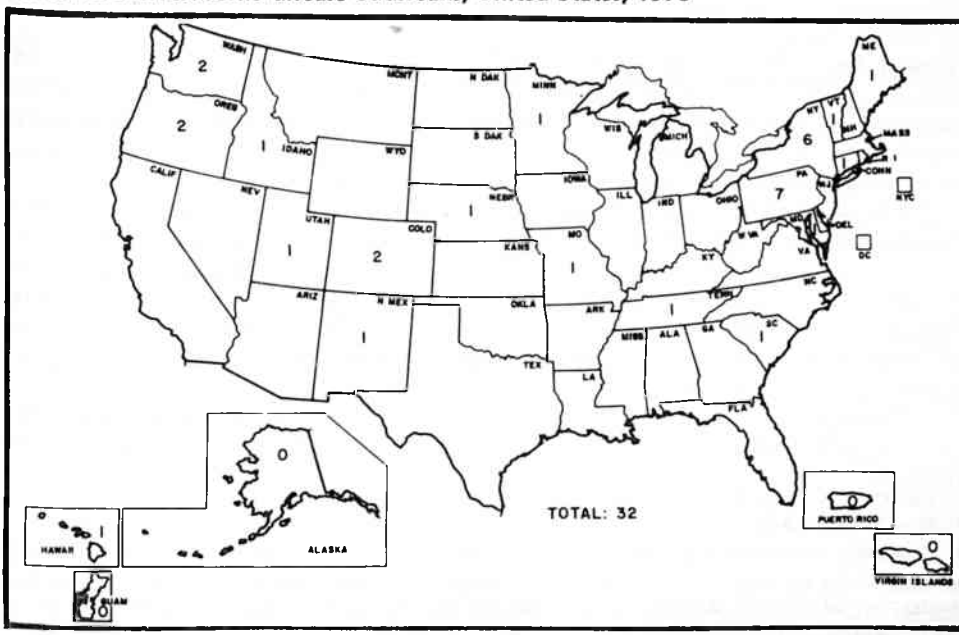
Waterborne Disease Outbreaks in the United States – 1978

In 1978, 32 outbreaks of acute waterborne disease involving 11,435 cases were reported to CDC. Although the total number of reported outbreaks has declined slightly since

Waterborne Disease — Continued

1976, the total number of cases involved is the highest since the current surveillance system was initiated in 1971. Eighteen states reported at least 1 outbreak (Figure 2). As in previous years, Pennsylvania reported the largest number of outbreaks (21%).

FIGURE 2. Waterborne disease outbreaks, United States, 1978



In 16 (50%) outbreaks, the etiology was determined: *Shigella* (4 outbreaks), *Giardia lamblia* (4), parvovirus-like agents (3), *Salmonella* (2), a chemical (2), and *Campylobacter fetus* ssp. *jejuni* (1). The illness in the 16 outbreaks of undetermined etiology was characterized by upper or lower gastrointestinal symptomatology and in most instances an incubation period between 12-48 hours.

The majority of outbreaks (56%) involved semipublic water supplies, that is, systems in institutions, camps, parks, or the like, that can be used by the general public; 12 (38%) were in recreational areas such as campgrounds and resorts. Municipal water supplies accounted for only 31% of the outbreaks but 77% of the people affected. Individual water supplies accounted for 13% of the outbreaks. Of the 10 outbreaks related to municipal systems, treatment deficiencies were responsible for 6. Of the 18 outbreaks related to semipublic water supplies, 8 (44%) were caused by the use of untreated water.

Results of microbiologic tests of water samples were reported for 27 of the 30 outbreaks that were not due to chemical contamination. Evidence of contamination (presence of coliforms or pathogens) was found in 22 (81%). Results of microbiologic examinations

The Morbidity and Mortality Weekly Report, circulation 96,486, 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.

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Waterborne Disease — Continued

were reported in 3 of the 4 *Giardia* outbreaks; in only 1 was the coliform count elevated. *G. lamblia* cysts were recovered from water in 2 of these outbreaks.

Reported by participating State and Territorial Epidemiologists; Health Effects Research Laboratory, Environmental Protection Agency; Viral Diseases Div, Parasitic Diseases Div, Chronic Diseases Div, Field Services Div, and Water-Related Diseases Activity, Enteric Diseases Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: The average number of outbreaks reported in 1976-1978 (34) is a 40% increase over the 5-year average for 1971-1975 (24). The increasing number of reported outbreaks of waterborne diseases in recent years is primarily because of more active surveillance in certain states. The totals given here are estimated to be but a fraction of the outbreaks that actually occurred.

The etiology of 55% of the 223 documented outbreaks reported to CDC since 1971 is unknown. Two agents, *C. fetus* ssp. *jejuni* and the parvovirus-like agent, were first found to be responsible for waterborne outbreaks in 1978 (*1,2*). These agents may have accounted for previous outbreaks of unknown etiology. Use of newer techniques, such as radioimmunoassay for parvovirus-like agents and selective culture media for *Campylobacter,* will expand the capability to make etiologic diagnoses of outbreaks, if appropriate specimens are collected.

Coliform counts are standard indicators of fecal contamination of water supplies. However, outbreaks of giardiasis can occur in the absence of elevated coliform counts (*3*).

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1. MMWR 1978;27:207.
2. MMWR 1978;27:403.
3. Craun GF. Waterborne giardiasis in the United States: a review. Am J Public Health 1979;69:817-9.

▲A copy of the report from which these data were derived is available on request from CDC, ATTN: Water-Related Diseases Activity, Enteric Diseases Branch, Bacterial Diseases Division, Bureau of Epidemiology, Center for Disease Control, Atlanta, GA 30333.

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