

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Epidemiologic Notes and Reports

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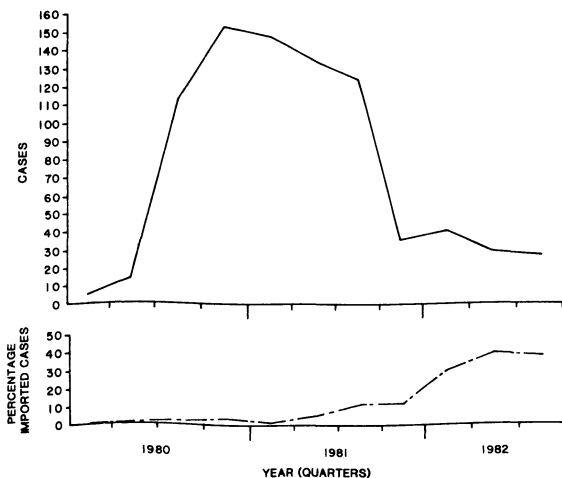
Penicillinase-producing *Neisseria gonorrhoeae*—Los Angeles

An intensified prevention program has controlled the first outbreak of penicillinase-producing *Neisseria gonorrhoeae* (PPNG) infections in a major U.S. metropolitan area. The outbreak in Los Angeles County, California, was initially identified in August 1980 and reached an average of 50 cases per month through March 1981 (Figure 1). Most cases were reported in residents of the central-southwestern part of the county, where rates of reported cases of non-PPNG gonococcal infection have historically been the highest.

In March 1981, the County of Los Angeles Department of Health Services implemented an expanded prevention program with special emphasis in those health districts reporting the greatest numbers of PPNG cases. The strategy included: 1) using spectinomycin as initial treatment for all patients (in health districts reporting the greatest number of PPNG cases) who had or were suspected of having uncomplicated gonococcal urethritis or cervicitis; 2) testing all *N. gonorrhoeae* isolates for β -lactamase production; 3) referring all identified sexual partners of patients with PPNG for prompt examination and treatment; 4) culturing high-risk groups, particularly prostitutes, for *N. gonorrhoeae*; 5) publicizing the outbreak through the media, targeting educational programs for high-risk groups, and educating health care providers through medical alerts, letters, and seminars.

Between March and December 1981, more than 16,000 doses of spectinomycin were administered. At least 19,520 *N. gonorrhoeae* isolates were tested for β -lactamase

FIGURE 1. Total penicillinase-producing *Neisseria gonorrhoeae* (PPNG) cases and percentage imported — Los Angeles, 1980-1982



PPNG — Continued

production. Contact interviews and reinterviews of persons with PPNG resulted in the examination of 924 sexual partners and other suspects. In addition, 8,147 persons were cultured at a county jail (where persons arrested for prostitution are usually sent). Public health personnel spent an estimated 14,700 person-hours on this effort during the first 10 months (March-December 1981).

All these prevention activities were designed to improve the timeliness of the appropriate treatment given to persons with PPNG. The average interval between the infected patient's first visit to a health care facility and the administration of spectinomycin or other appropriate therapy, was reduced from 8.5 days (January-February 1981) to 3.3 days (March-December 1981).

During the first 4 months of the intervention program (April-July 1981), the average number of cases reported monthly remained stable. Thereafter, cases decreased and leveled off through 1982 and into 1983, averaging less than 15 cases reported monthly from October 1981 through March 1983. From October 1981 through December 1982, the proportion of all cases attributed to persons returning to Los Angeles from high-incidence PPNG areas increased from less than 5% to approximately 40% (Figure 1). All six patients reported in March 1983 had either histories of foreign travel or exposures to partners with histories of foreign travel or residence.

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Editorial Note: The control of PPNG infections in Los Angeles and the virtual end of endemic transmission are attributable to the comprehensive control effort, including targeted use of spectinomycin therapy, laboratory surveillance, testing and treating sexual partners, screening and educating high-risk populations, and educating high-risk community and professional groups. These measures appreciably reduced the time that the average patient remained able to transmit the disease. However, cases continue to be imported into Los Angeles, and high-quality surveillance and appropriate control measures are being maintained to ensure that endemic transmission does not occur.

In many other areas of the United States, the incidence of PPNG infection is increasing. For the entire United States, 3,424 cases were reported during the first 9 months of 1982, an increase of 1,491 cases (77%) over the same period in 1981. Sustained, endemic transmission continues in New York City and Florida. For the first 9 months of 1982, these areas accounted for 47% of all U.S. cases (1); comprehensive control efforts in these areas are being directed toward eliminating endemic disease.

Control of the spread of PPNG in other areas is threatened by the pressure of continued importation. During 1981, 27% of all cases reported by areas other than Los Angeles, Florida, and New York City were in persons returning from high-incidence PPNG areas overseas (1). For these locations, CDC continues to recommend timely and appropriate therapy for the maximum number of infected persons. This prevention strategy includes: 1) using spectinomycin, 2 g intramuscularly, for confirmed cases, sexual partners of persons with confirmed cases, and persons with suspected gonococcal infections who have returned from high-incidence PPNG areas; 2) prompt referral and treatment of sexual partners; 3) testing all gonococcal isolates for β -lactamase production; and 4) screening high-risk persons for gonococcal infections (2,3,4).

References

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PPNG — Continued

4. CDC. Global distribution of penicillinase-producing *Neisseria gonorrhoeae* (PPNG). MMWR 1982;31(1-2):1-3.

Interstate Common-Source Outbreaks of Staphylococcal Food Poisoning — North Carolina, Pennsylvania

From July 21 to August 4, 1982, three outbreaks of acute gastroenteritis associated with a single Pennsylvania caterer and caused by *Staphylococcus aureus* phage type 53 were reported to CDC. Two outbreaks were linked to a specialty ham product, which had been produced in Brooklyn, New York, and distributed to five states, and one was associated with a stuffed chicken-breast product.

North Carolina: On July 21, 14 cases of acute gastrointestinal illness occurred among 41 persons traveling by bus from Allegheny County, Pennsylvania, through Iredell County, North Carolina. Box lunches, containing ham-and-cheese sandwiches prepared by an Allegheny County caterer, had been served to the passengers after more than 5½ hours without refrigeration. Symptoms included vomiting (86%), abdominal cramps (86%), nausea (79%), diarrhea (69%), dizziness or weakness (69%), and fever (14%). The incubation period was 2½-5 hours (mean 3¾ hours). All affected persons sought medical aid at a hospital in Iredell County; nine were hospitalized.

Food histories obtained from 39 passengers implicated the ham-and-cheese sandwiches as the vehicle of transmission. Fourteen (38%) of 37 persons who ate the sandwiches became ill, and none (0/2) of those who had not eaten them became ill, ($p < 0.05$). Stool cultures from four of nine hospitalized persons were positive for *S. aureus* phage type 53, which was also isolated from the ham-and-cheese sandwiches; enterotoxin tests of the sandwiches revealed preformed enterotoxin type A.

Pennsylvania, Outbreak 1: On July 22, an outbreak of gastrointestinal illness occurred in Grove City, Pennsylvania, following a picnic attended by 600 people and catered by the same Allegheny County caterer. Of 49 persons interviewed, 33 reported illness, with symptoms that included diarrhea (76%), vomiting (61%), abdominal cramps (36%), and nausea (24%). The incubation period was 4-8 hours (mean 5 hours). Three persons were hospitalized.

Food histories showed that stuffed chicken breast was the probable vehicle of transmission. Thirty-three (69%) of 48 persons who ate the stuffed chicken breasts became ill; the one person who did not eat the chicken did not become ill. Although ham had been served at the picnic, it was not implicated. Isolates from the stuffed chicken breasts and from stool cultures from two ill persons were positive for *S. aureus* phage type 53. The Allegheny County Health Department found *S. aureus* in two previously unopened cryovac-packaged hams taken from the caterer on July 27. It was postulated that the lunches had been cross-contaminated at the caterer's work area. When specimens from a new shipment of hams were culture-negative, the caterer was allowed to continue operation.

Outbreak 2: On August 4, at least 51 cases of acute gastrointestinal illness occurred among 248 passengers on an Ohio River boat trip from Pittsburgh, Pennsylvania, to Waterford Park, West Virginia. Food had been provided by the same Allegheny County caterer. Symptoms included diarrhea (86%), nausea (81%), vomiting (77%), and abdominal cramps (61%). The incubation period was 1½-7½ hours (mean 6 hours). Twenty-six of those affected sought medical aid at an Ohio hospital; three were hospitalized. Food histories of 199 persons interviewed implicated sliced ham as the vehicle of transmission. The attack rate was 30% (51/171) for those who ate ham and 0% (0/28, $p < 0.001$) for those who did not eat ham. *S. aureus* phage type 53 was isolated from stool specimens from eight patients treated at the hospital. Allegheny County Health Department tests on specimens from a previously unopened cryovac-packaged ham obtained August 5 showed *S. aureus* phage type 53.

Food Poisoning — Continued

After the third outbreak, the U.S. Department of Agriculture (USDA) tested previously unopened cryovac-packaged hams and found 12 of 21 hams culture-positive for *S. aureus*. The isolates from nine of these hams were phage type 53; none had preformed enterotoxin, but the isolates were enterotoxin type A-producing. On August 17, the USDA formally recalled 36,000 pounds of ham distributed by the Brooklyn, New York, processor to five states, (Connecticut, Maryland, New York, Pennsylvania, and Virginia). USDA inspection implicated a "cold smoke" method of processing the specialty ham, allowing exposure to bacterial growth temperatures for over 6 hours. The processor has now discontinued this method.

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Editorial Note: In 1981, *S. aureus* was responsible for 18% of all reported food-borne disease outbreaks in the United States, making it the second most commonly reported food-borne pathogen. Ham was the vehicle in 18% of *S. aureus* outbreaks; outbreaks involving

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TABLE I. Summary—cases specified notifiable diseases, United States

Disease	14th Week Ending			Cumulative, 14th Week Ending		
	April 9, 1983	April 10, 1982	Median 1978-1982	April 9, 1983	April 10, 1982	Median 1978-1982
Aseptic meningitis	74	60	47	1,117	1,048	888
Encephalitis: Primary (arthropod-borne & unsp.)	17	11	11	236	213	162
Post-infectious	2	3	4	19	13	43
Gonorrhea: Civilian	15,214	18,406	18,406	237,329	249,720	252,498
Military	387	548	548	6,215	7,341	7,341
Hepatitis: Type A	387	388	548	6,476	6,134	7,295
Type B	438	427	309	5,796	5,420	4,242
Non A, Non B	61	51	N	840	517	N
Unspecified	156	185	191	2,104	2,308	2,748
Legionellosis	6	8	N	146	86	N
Leprosy	4	10	3	66	50	47
Malaria	19	8	12	172	198	198
Measles: Total	43	31	477	530	243	3,866
Indigenous	40	N	N	457	N	N
Imported*	3	N	N	73	N	N
Meningococcal infections: Total	92	72	75	917	962	958
Civilian	92	72	73	905	958	949
Military	-	-	-	12	4	9
Mumps	52	298	298	1,110	1,996	3,918
Pertussis	68	24	24	410	288	288
Rubella (German measles)	26	79	128	307	652	1,317
Syphilis (Primary & Secondary): Civilian	579	608	501	8,731	9,085	7,027
Military	4	3	3	129	99	99
Toxic-shock syndrome	8	N	N	104	N	N
Tuberculosis	421	513	513	5,782	6,360	6,564
Tularemia	5	4	1	42	26	25
Typhoid fever	7	1	5	92	106	108
Typhus fever, tick-borne (RMSF)	4	2	2	22	21	17
Rabies, animal	187	142	130	1,590	1,406	1,406

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1983		Cum. 1983
Anthrax	-	Plague	-
Botulism: Foodborne	6	Polioomyelitis: Total	1
Infant (Tenn. 1, Calif. 1)	14	Paralytic	1
Other	-	Psittacosis (Upstate N.Y. 1, Minn. 1, Calif. 1)	24
Brucellosis	22	Rabies, human	2
Cholera	-	Tetanus (Wash. 1)	13
Congenital rubella syndrome	8	Trichinosis	11
Diphtheria	-	Typhus fever, flea-borne (endemic, murine) (Hawaii 1)	4
Leptospirosis	6		

*Two of the 43 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending
April 9, 1983 and April 10, 1982 (14th week)

Reporting Area	Aseptic Meningi- tis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel- losis	Leprosy	Malaria
		Primary	Post-in- fectious			A	B	NA,NB	Unspeci- fied			
	1983	Cum. 1983	Cum. 1983	Cum. 1983	Cum. 1982	1983	1983	1983	1983	1983	Cum. 1983	Cum. 1983
UNITED STATES	74	236	19	237,329	249,720	387	438	61	156	6	66	172
NEW ENGLAND	2	9	-	6,120	5,903	7	14	1	9	-	1	3
Maine	-	-	-	345	271	1	-	-	-	-	-	-
N.H.	2	-	-	177	210	2	-	-	1	-	1	-
Vt.	-	-	-	96	123	-	2	1	-	-	-	-
Mass.	-	6	-	2,730	2,676	4	3	-	8	-	-	-
R.I.	-	-	-	327	417	-	3	-	-	-	-	1
Conn.	-	3	-	2,445	2,206	-	6	-	-	-	-	2
MID ATLANTIC	10	29	4	30,720	30,045	52	79	2	17	-	7	30
Upstate N.Y.	-	9	-	4,279	4,891	10	21	-	4	-	-	9
N.Y. City	1	6	-	13,145	12,473	12	25	-	-	-	7	11
N.J.	1	5	-	5,695	5,627	6	21	-	13	-	-	7
Pa.	8	9	4	7,601	7,054	24	12	2	-	-	-	3
E.N. CENTRAL	7	47	3	30,097	35,454	31	45	8	11	2	2	7
Ohio	1	23	2	8,409	10,085	23	21	2	6	-	1	-
Ind.	2	4	1	3,849	4,071	4	5	2	3	-	-	-
Ill.	1	-	-	5,460	9,468	-	7	-	-	-	1	1
Mich.	3	19	-	9,403	8,509	4	12	4	2	2	-	6
Wis.	-	1	-	2,976	3,321	-	-	-	-	-	-	-
W.N. CENTRAL	2	32	3	11,448	11,665	10	8	6	1	-	-	7
Minn.	-	17	1	1,654	1,697	4	3	2	-	-	-	2
Iowa	-	14	-	1,202	1,269	1	1	1	-	-	-	2
Mo.	2	-	-	5,620	5,305	1	4	2	1	-	-	2
N. Dak.	-	-	-	111	154	-	-	-	-	-	-	-
S. Dak.	-	-	1	335	335	4	-	-	-	-	-	-
Nebr.	-	1	-	610	717	-	-	-	-	-	-	-
Kans.	-	-	1	1,916	2,188	-	-	1	-	-	-	1
S. ATLANTIC	18	35	3	62,413	63,705	41	81	2	17	1	2	22
Del.	-	-	-	1,138	987	-	3	-	-	-	-	-
Md.	-	5	-	7,822	8,127	2	17	-	4	-	-	3
D.C.	-	-	-	4,294	3,193	-	1	-	-	-	-	2
Va.	1	13	1	5,228	5,497	-	9	-	1	1	-	6
W. Va.	-	-	-	592	727	3	-	-	1	-	-	1
N.C.	-	7	-	8,614	10,417	2	3	-	-	-	-	-
S.C.	U	1	-	5,644	5,958	U	U	U	U	U	-	3
Ga.	2	1	-	14,390	10,551	9	16	1	-	-	-	1
Fla.	15	8	2	14,691	18,248	25	32	1	11	-	2	6
E.S. CENTRAL	3	9	2	20,627	20,801	20	31	6	4	-	-	3
Ky.	-	-	-	2,527	2,738	6	6	-	2	-	-	-
Tenn.	2	1	-	8,130	7,957	5	14	1	1	-	-	-
Ala.	-	8	2	6,430	6,324	7	5	5	1	-	-	1
Miss.	1	-	-	3,540	3,782	2	6	-	-	-	-	2
W.S. CENTRAL	14	24	-	33,587	35,133	75	35	4	60	-	3	15
Ark.	2	2	-	2,655	2,896	-	6	-	5	-	-	1
La.	1	2	-	5,304	6,255	8	6	2	1	-	-	-
Okla.	3	7	-	4,059	3,712	12	5	2	4	-	-	5
Tex.	8	13	-	21,569	22,270	55	18	-	50	-	3	9
MOUNTAIN	1	9	2	7,157	9,014	33	16	4	6	-	11	8
Mont.	-	-	-	344	382	1	-	-	1	-	-	-
Idaho	-	-	-	360	397	-	3	-	-	-	-	-
Wyo.	1	1	-	205	251	-	-	-	-	-	-	-
Colo.	-	2	-	2,083	2,476	7	5	-	2	-	2	4
N. Mex.	-	-	-	934	1,135	6	-	-	-	-	-	2
Ariz.	-	1	2	1,765	2,456	14	5	2	2	-	9	2
Utah	-	5	-	336	396	5	-	-	-	-	-	-
Nev.	-	-	-	1,130	1,521	-	3	2	1	-	-	-
PACIFIC	17	42	2	35,160	38,000	118	129	28	31	3	40	77
Wash.	1	3	-	2,475	3,279	13	13	5	2	-	3	2
Oreg.	-	-	-	1,792	2,151	8	8	2	1	-	1	4
Calif.	14	37	2	29,382	30,951	97	106	21	26	3	25	71
Alaska	-	-	-	794	961	-	-	-	1	-	-	-
Hawaii	2	2	-	717	658	-	2	-	1	-	11	-
Guam	U	-	-	26	35	U	U	U	U	U	-	-
P.R.	1	-	-	677	826	15	19	-	8	-	-	1
V.I.	U	-	-	74	58	U	U	U	U	U	-	-
Pac. Trust Terr.	U	-	-	-	119	U	U	U	U	U	-	-

N: Not notifiable

U: Unavailable

TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending
April 9, 1983 and April 10, 1982 (14th week)

Reporting Area	Measles (Rubeola)					Men- gococcal Infections	Mumps			Pertussis			Rubella		
	Indigenous		Imported*		Total										
	1983	Cum. 1983	1983	Cum. 1983	Cum. 1982		Cum. 1983	1983	Cum. 1983	Cum. 1982	1983	Cum. 1983	Cum. 1982	1983	Cum. 1983
UNITED STATES	40	457	3	73	243	917	52	1,110	1,996	68	410	288	26	307	652
NEW ENGLAND	-	1	-	1	6	48	4	54	102	-	15	19	2	9	8
Maine	-	-	-	-	-	6	-	8	22	-	-	-	-	-	-
N.H.	-	-	-	-	-	4	-	12	11	-	2	4	2	2	8
Vt.	-	-	-	-	2	-	-	7	4	-	2	-	-	1	-
Mass.	-	1	-	-	1	15	2	13	49	-	10	6	-	6	-
R.I.	-	-	-	-	-	2	2	6	7	-	1	7	-	-	-
Conn.	-	-	-	1	3	21	-	8	9	-	-	2	-	-	-
MID ATLANTIC	-	3	-	8	25	140	4	89	111	40	103	41	-	17	52
Upstate N.Y.	-	-	-	2	13	47	-	37	30	4	38	25	-	11	28
N.Y. City	-	3	-	5	10	15	1	7	20	-	8	6	-	2	14
N.J.	-	-	-	1	-	20	-	15	22	-	8	4	-	1	10
Pa.	-	-	-	-	2	58	3	30	39	36	49	6	-	3	-
E.N. CENTRAL	11	262	1	39	24	151	16	545	1,178	11	98	105	3	39	79
Ohio	-	-	-	1	-	64	-	304	849	-	32	20	-	1	-
Ind.	11	201	-	-	1	24	-	14	19	1	8	9	-	2	9
Ill.	-	61	-	32	14	24	8	47	58	10	49	46	3	18	21
Mich.	-	-	1§	6	9	33	8	150	181	-	6	7	-	9	32
Wis.	-	-	-	-	-	6	-	30	71	-	3	23	-	9	17
W.N. CENTRAL	-	-	-	-	1	63	8	89	139	5	24	12	1	19	20
Minn.	-	-	-	-	-	9	3	14	75	2	9	3	-	3	1
Iowa	-	-	-	-	-	8	-	29	19	-	2	-	-	-	-
Mo.	-	-	-	-	1	33	3	7	6	1	3	5	-	-	13
N. Dak.	-	-	-	-	-	1	-	-	-	1	1	-	-	-	-
S. Dak.	-	-	-	-	-	2	-	-	-	-	-	2	-	-	1
Nebr.	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Kans.	-	-	-	-	-	10	2	39	39	1	9	1	1	16	5
S. ATLANTIC	25	104	-	4	22	207	5	52	137	10	57	27	6	30	17
Del.	-	-	-	-	-	-	-	4	3	-	-	3	-	-	-
Md.	1	2	-	-	1	24	2	11	11	8	8	-	-	1	5
D.C.	-	-	-	-	1	3	-	-	-	-	-	1	-	-	-
Va.	-	1	-	1	12	30	2	14	19	-	21	4	-	1	6
W. Va.	-	-	-	-	1	1	1	12	62	-	2	3	-	-	1
N.C.	-	-	-	-	-	38	-	4	4	1	2	2	3	4	-
S.C.	U	-	U	3	-	24	U	2	9	U	2	4	U	-	1
Ga.	-	6	-	-	-	39	-	5	2	1	16	6	-	4	1
Fla.	24	95	-	-	7	48	-	-	27	-	6	4	3	20	3
E.S. CENTRAL	-	-	-	-	5	49	1	21	21	1	5	5	-	5	30
Ky.	-	-	-	-	1	9	-	8	8	-	2	-	-	5	15
Tenn.	-	-	-	-	4	16	1	10	8	-	2	4	-	-	-
Ala.	-	-	-	-	-	18	-	-	3	-	-	-	-	-	-
Miss.	-	-	-	-	-	6	-	3	2	1	1	1	-	-	15
W.S. CENTRAL	-	32	-	11	4	108	2	96	65	-	40	13	3	55	36
Ark.	-	-	-	11	-	5	1	2	3	-	2	-	-	-	-
La.	-	-	-	-	-	18	-	-	1	-	2	-	-	9	-
Okla.	-	-	-	-	-	13	-	-	-	-	10	2	-	-	2
Tex.	-	32	-	-	4	72	1	94	61	-	26	11	3	46	34
MOUNTAIN	-	-	-	1	-	33	1	34	38	1	53	18	1	12	20
Mont.	-	-	-	-	-	1	-	1	3	-	1	-	1	3	1
Idaho	-	-	-	-	-	3	-	-	2	-	2	1	-	2	-
Wyo.	-	-	-	-	-	1	-	-	2	-	4	1	-	1	4
Colo.	-	-	-	1	-	15	1	4	9	1	33	5	-	-	1
N. Mex.	-	-	-	-	-	5	-	-	-	-	4	3	-	-	2
Ariz.	-	-	-	-	-	5	-	21	13	-	6	8	-	4	4
Utah	-	-	-	-	-	3	-	6	7	-	3	-	-	1	6
Nev.	-	-	-	-	-	-	-	1	2	-	-	-	-	1	2
PACIFIC	4	55	2	9	156	118	11	130	205	-	15	48	10	121	390
Wash.	-	1	-	-	14	18	1	21	37	-	1	9	-	1	16
Oreg.	-	5	-	-	-	13	-	-	-	-	2	5	2	8	2
Calif.	4	48	2†	9	140	84	8	93	163	-	12	34	8	112	367
Alaska	-	-	-	-	-	-	-	8	4	-	-	-	-	-	1
Hawaii	-	1	-	-	2	3	2	8	1	-	-	-	-	-	4
Guam	U	-	U	-	-	-	U	-	1	U	-	-	U	-	1
P.R.	-	26	-	-	44	7	4	41	15	-	3	6	-	1	3
V.I.	U	-	U	5	-	-	U	-	-	U	-	-	U	1	-
Pac. Trust Terr.	U	-	U	-	-	-	U	-	1	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.

U: Unavailable

[†]International

[§]Out-of-state

TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending
April 9, 1983 and April 10, 1982 (14th week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic- shock Syndrome	Tuberculosis		Tula- remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1983	Cum. 1982		1983	Cum. 1983				
UNITED STATES	8,731	9,085	8	421	5,782	42	92	22	1,590
NEW ENGLAND	219	179	2	13	152	-	6	1	2
Maine	6	-	-	1	11	-	-	-	2
N.H.	7	-	1	1	14	-	-	-	-
Vt.	1	-	-	-	2	-	-	-	-
Mass.	144	127	-	9	74	-	6	1	-
R.I.	6	11	1	-	16	-	-	-	-
Conn.	55	41	-	2	35	-	-	-	-
MID ATLANTIC	1,037	1,199	1	58	1,081	-	19	-	34
Upstate N.Y.	45	131	-	3	177	-	3	-	21
N.Y. City	643	722	-	31	421	-	10	-	-
N.J.	198	138	-	10	232	-	6	-	-
Pa.	151	208	1	14	251	-	-	-	13
E.N. CENTRAL	365	576	1	36	815	-	12	2	120
Ohio	129	87	-	4	129	-	3	1	16
Ind.	46	62	-	-	91	-	1	-	8
Ill.	95	304	-	14	359	-	4	-	61
Mich.	71	93	1	16	197	-	4	1	-
Wis.	24	30	-	2	39	-	-	-	35
W.N. CENTRAL	103	172	-	12	192	14	1	4	233
Minn.	47	25	-	3	34	-	-	-	50
Iowa	4	7	-	-	25	-	-	-	68
Mo.	35	108	-	9	96	10	1	3	28
N. Dak.	-	4	-	-	-	-	-	1	17
S. Dak.	-	-	-	-	16	-	-	-	29
Nebr.	5	5	-	-	5	2	-	-	15
Kans.	12	23	-	-	16	2	-	-	26
S. ATLANTIC	2,306	2,470	2	88	1,128	11	13	3	585
Del.	12	6	-	-	7	-	-	-	-
Md.	120	144	-	8	111	5	4	1	247
D.C.	96	159	-	7	40	-	-	-	1
Va.	169	183	2	6	96	1	3	-	226
W. Va.	6	6	-	-	48	-	2	1	38
N.C.	211	194	-	-	117	4	1	-	3
S.C.	157	118	U	U	91	-	1	-	6
Ga.	437	526	-	27	232	1	-	-	54
Fla.	1,098	1,134	-	40	386	-	2	1	10
E.S. CENTRAL	596	683	-	54	562	6	1	3	142
Ky.	35	33	-	12	152	-	-	-	29
Tenn.	155	187	-	24	163	4	1	1	99
Ala.	249	232	-	8	154	-	-	2	14
Miss.	157	231	-	10	93	2	-	-	-
W.S. CENTRAL	2,288	2,296	-	47	604	9	3	6	315
Ark.	60	56	-	4	50	6	-	2	52
La.	410	476	-	8	99	2	-	-	8
Okla.	64	43	-	8	71	1	-	1	34
Tex.	1,754	1,721	-	27	384	-	3	3	221
MOUNTAIN	202	242	-	18	160	1	5	2	60
Mont.	4	1	-	1	14	-	-	1	47
Idaho	3	16	-	-	10	-	-	1	-
Wyo.	3	9	-	-	2	-	-	-	1
Colo.	54	76	-	3	13	-	1	-	-
N. Mex.	67	45	-	4	31	1	-	-	2
Ariz.	40	52	-	4	64	-	3	-	10
Utah	8	7	-	6	17	-	1	-	-
Nev.	23	36	-	-	9	-	-	-	-
PACIFIC	1,615	1,268	2	95	1,088	1	32	1	99
Wash.	39	40	-	-	58	-	2	-	-
Oreg.	32	36	-	2	50	-	-	-	-
Calif.	1,512	1,159	2	88	898	1	29	1	93
Alaska	7	6	-	-	13	-	-	-	6
Hawaii	25	27	-	5	69	-	1	-	-
Guam	-	1	U	U	-	-	-	-	-
P.R.	212	174	-	7	124	-	-	-	14
V.I.	7	-	U	U	1	-	-	-	-
Pac. Trust Terr.	-	-	U	U	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending
April 9, 1983 (14th week)

Reporting Area	All Causes, By Age (Years)						P&I** Total	Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1			All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	722	510	151	24	19	18	62	S. ATLANTIC	1,175	713	272	95	43	52	54
Boston, Mass.	181	113	47	8	6	7	21	Atlanta, Ga.	154	88	38	13	4	11	8
Bridgeport, Conn.	28	20	7	-	-	1	3	Baltimore, Md.	197	131	44	9	6	7	3
Cambridge, Mass.	34	30	4	-	-	-	2	Charlotte, N.C.	84	55	20	4	3	2	4
Fall River, Mass.	24	17	4	1	1	1	-	Jacksonville, Fla.	88	54	22	6	5	1	11
Hartford, Conn.	78	51	22	2	1	2	2	Miami, Fla.	124	66	34	15	3	6	1
Lowell, Mass.	23	19	4	-	-	-	1	Norfolk, Va.	50	28	15	1	3	3	8
Lynn, Mass.	18	14	2	1	-	1	1	Richmond, Va.	67	40	12	4	4	7	3
New Bedford, Mass.	34	28	5	1	-	-	8	Savannah, Ga.	35	17	12	4	1	1	3
New Haven, Conn.	65	46	11	2	5	1	2	St. Petersburg, Fla.	102	81	13	3	-	5	-
Providence, R.I.	75	47	13	3	-	2	6	Tampa, Fla.	68	32	13	13	6	4	3
Somerville, Mass.	9	7	2	-	-	-	3	Washington, D.C.	160	105	34	13	4	4	6
Springfield, Mass.	41	29	6	3	2	1	4	Wilmington, Del.	46	16	15	10	4	1	4
Waterbury, Conn.	40	26	11	1	2	-	5								
Worcester, Mass.	72	53	13	2	2	2	4								
MID. ATLANTIC	2,738	1,824	583	190	62	79	125	E.S. CENTRAL	759	480	177	48	22	32	60
Albany, N.Y.	56	45	5	-	3	3	3	Birmingham, Ala.	114	75	22	9	5	3	2
Allentown, Pa.	18	14	3	1	-	-	-	Chattanooga, Tenn.	71	48	17	3	2	1	13
Buffalo, N.Y.	166	108	38	11	5	4	7	Knoxville, Tenn.	47	27	13	3	3	1	3
Camden, N.J.	46	28	10	2	1	5	1	Louisville, Ky.	137	92	32	6	-	7	13
Elizabeth, N.J.	28	19	7	2	-	-	-	Memphis, Tenn.	167	97	34	16	8	12	11
Erie, Pa.†	44	29	11	-	3	1	2	Mobile, Ala.	83	56	17	4	2	4	9
Jersey City, N.J.	48	36	10	1	-	1	2	Montgomery, Ala.	45	29	12	3	1	-	2
N.Y. City, N.Y.	1,471	976	310	112	28	45	59	Nashville, Tenn.	95	56	30	4	1	4	7
Newark, N.J.	65	33	19	6	4	3	10								
Paterson, N.J.	32	21	7	4	-	-	5	W.S. CENTRAL	1,433	873	364	85	61	50	59
Philadelphia, Pa.†	299	185	70	31	8	5	13	Austin, Tex.	66	43	13	6	2	2	4
Pittsburgh, Pa.†	109	74	26	5	2	2	3	Baton Rouge, La.	31	22	7	1	-	1	3
Reading, Pa.	46	35	8	2	1	-	4	Corpus Christi, Tex.	42	28	11	2	1	-	-
Rochester, N.Y.	120	85	24	7	2	2	10	Dallas, Tex.	168	107	43	8	7	3	1
Schenectady, N.Y.	23	20	2	1	-	-	1	El Paso, Tex.	54	32	17	2	2	1	4
Scranton, Pa.†	32	23	4	-	3	2	1	Fort Worth, Tex.	113	70	25	11	4	3	8
Syracuse, N.Y.	34	17	11	2	-	4	2	Houston, Tex.	417	270	121	30	23	17	9
Trenton, N.J.	39	30	7	-	1	1	-	Little Rock, Ark.	73	37	22	5	5	4	4
Utica, N.Y.	31	22	7	1	-	1	1	New Orleans, La.	116	75	24	9	7	1	-
Yonkers, N.Y.	31	24	4	2	1	-	1	San Antonio, Tex.	176	114	42	5	4	11	13
								Shreveport, La.	52	29	18	2	2	1	1
								Tulsa, Okla.	125	90	21	4	4	6	12
E.N. CENTRAL	2,381	1,530	551	147	62	91	99	MOUNTAIN	661	409	149	53	27	23	25
Akron, Ohio	55	41	5	4	2	3	-	Albuquerque, N.Mex.	99	53	21	15	5	5	8
Canton, Ohio	42	30	10	1	1	-	3	Colo. Springs, Colo.	29	21	7	1	-	-	2
Chicago, Ill.	526	338	130	27	10	21	13	Denver, Colo.	130	84	26	9	6	5	2
Cincinnati, Ohio	139	90	31	8	3	7	19	Las Vegas, Nev.	73	43	18	8	2	2	2
Cleveland, Ohio	189	115	51	12	4	7	4	Ogden, Utah	15	13	1	-	-	1	2
Columbus, Ohio	187	115	43	8	9	12	5	Phoenix, Ariz.	158	104	30	10	8	6	-
Dayton, Ohio	96	59	24	7	2	4	1	Pueblo, Colo.	17	7	7	2	1	-	-
Detroit, Mich.	270	145	72	35	11	7	9	Salt Lake City, Utah	44	21	19	2	1	-	-
Evansville, Ind.	63	45	12	5	1	-	2	Tucson, Ariz.	96	63	20	6	4	3	7
Fort Wayne, Ind.	56	43	6	3	2	2	3								
Gary, Ind.	20	12	5	3	-	-	-	PACIFIC	1,876	1,281	359	124	51	59	116
Grand Rapids, Mich.	45	35	8	1	-	1	4	Berkeley, Calif.	22	14	4	2	1	1	1
Indianapolis, Ind.	149	98	32	11	4	4	7	Fresno, Calif.	99	80	10	3	4	1	4
Madison, Wis.	47	28	10	3	2	4	4	Glendale, Calif.	20	14	4	1	-	1	2
Milwaukee, Wis.	176	119	42	5	1	9	-	Honolulu, Hawaii	81	47	24	7	-	3	8
Peoria, Ill.	38	18	7	2	4	7	4	Long Beach, Calif.	105	71	23	4	3	4	3
Rockford, Ill.	45	35	7	2	1	-	4	Los Angeles, Calif.	517	340	97	48	19	13	19
South Bend, Ind.	51	37	11	1	1	1	6	Oakland, Calif.	77	53	16	3	2	3	4
Toledo, Ohio	121	84	31	3	2	1	10	Pasadena, Calif.	33	28	4	-	1	-	3
Youngstown, Ohio	66	43	14	6	2	1	1	Portland, Oreg.	133	101	19	5	4	-	3
								Sacramento, Calif.	64	49	14	1	-	-	3
W.N. CENTRAL	766	541	153	33	12	27	47	San Diego, Calif.	171	103	43	11	7	7	19
Des Moines, Iowa	87	54	24	8	-	1	7	San Francisco, Calif.	157	110	20	16	3	8	11
Duluth, Minn.	17	16	-	1	-	-	2	San Jose, Calif.	187	126	39	15	2	5	18
Kansas City, Kans.	36	23	7	-	3	3	1	Seattle, Wash.	131	89	30	3	3	6	3
Kansas City, Mo.	131	90	28	7	2	4	13	Spokane, Wash.	40	30	5	2	-	3	3
Lincoln, Nebr.	32	24	7	-	-	1	2	Tacoma, Wash.	39	26	7	3	2	1	3
Minneapolis, Minn.	103	70	19	7	3	4	4								
Omaha, Nebr.	83	63	12	1	2	5	8								
St. Louis, Mo.	149	106	30	5	2	6	4								
St. Paul, Minn.	71	50	17	1	-	3	-								
Wichita, Kans.	57	45	9	3	-	-	6								
								TOTAL	12,511 ^{††}	8,161	2,759	799	359	431	647

* 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.

†† Total includes unknown ages.

Food Poisoning — Continued

ham have almost always been caused by *S. aureus*. In 1981, eight of nine ham-associated outbreaks were caused by this organism. (The etiologic agent of the ninth outbreak was unknown.)

The effect of USDA intervention cannot be assessed, since production of the specialty ham product was discontinued after investigation of these outbreaks.

Perspectives in Disease Prevention and Health Promotion

Leading Work-Related Diseases and Injuries — United States

The National Institute for Occupational Safety and Health (NIOSH) has developed a suggested list of the 10 leading work-related diseases and injuries (Table 1). Problems in the first category, occupational lung diseases, were recently described (1); a discussion of the second category, musculoskeletal injuries, appears below.

MUSCULOSKELETAL INJURIES

In 1982, musculoskeletal injuries accounted for 580,000 (18%) of the estimated 3.2 million emergency-room-treated occupational injuries in the United States (2). Physical demands of many jobs make the musculoskeletal system highly vulnerable to a variety of occupational injuries and illnesses. Manual handling of materials, repetitive motions, and vibration are especially important etiologic factors in the development of these disorders.

Injuries associated with the manual handling of materials (e.g., unaided lifting and lowering): Low back injuries, often due to improper manual handling of materials, are the largest single subset of musculoskeletal injuries. The Bureau of Labor Statistics recently reported that approximately one million workers sustained back injuries in 1980 and that back injuries account for one of every five injuries and illnesses in the workplace. Approximately one-fourth of all workers' compensation indemnity expenditures in eight states were for back injuries (3).

Repetitive motion-associated trauma: Repetitive motion can cause "cumulative trauma disorders," including carpal tunnel syndrome, tendinitis, ganglionitis, tenosynovitis, bursitis, and epicondylitis. These disorders may be caused or aggravated by repeated twisting or awkward postures, particularly when combined with high force. The population at risk includes persons employed in such industries or occupations as construction, food preparation, clerical work, product fabrication, and mining.

Data from the National Occupational Hazard Survey suggest that 15%-20% of workers in these jobs are potentially at risk of cumulative trauma disorders (4). Data from the Bureau of Labor Statistics indicate that in 1980 approximately 23,200 occupational injuries were associated with repeated trauma (5).

Vibration-associated injuries: An estimated seven million workers in such occupations as vehicle operation are intermittently exposed to whole-body vibration, which significantly stresses the musculoskeletal system (6). Although the effects are poorly understood, preliminary data suggest that low back pain, vertebrogenic pain, and degenerative disk disease may be associated with whole-body vibration (7,8).

An estimated 1.2 million workers are exposed to "segmental" vibration, i.e., vibration principally of a part or parts of the body, of which the principal sources are handheld power tools, such as chain saws and jackhammers (9). These exposures are associated with "vibration syndrome," characterized by intermittent numbness and blanching of the fingers with reduced sensitivity to heat, cold, and pain (10). Vibration syndrome may affect up to 90% of workers in such occupations as chipping, grinding, and chain sawing (11).

Reported by Div of Surveillance, Hazard Evaluations, and Field Studies, Div of Safety Research, NIOSH, CDC

Work-Related Diseases and Injuries — Continued

Editorial Note: Musculoskeletal injuries can be prevented or reduced with such appropriate intervention measures as:

1. Substitution. Machines, such as hoists, cranes, and dollies, can substitute for workers in some aspects of the manual handling of materials.
2. Improved equipment design. Research has shown that improved design of some vibrating tools virtually eliminates hazardous vibration; suspension or isolation systems may be added to vehicles to greatly reduce whole-body vibration.
3. Task design. Manual tasks can be altered to minimize biomechanical stress to the worker (12).
4. Worker education. Injuries due to musculoskeletal stresses may be reduced by pre-placement strength testing, training in proper ways to do a task, and on-site programs of exercise and physical therapy.
5. Variation of work practices. Periodic rotation of workers into jobs with different physical demands may help reduce the sequelae of biomechanical stress.

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TABLE 1. The ten leading work-related diseases and injuries — United States, 1982*

1. Occupational lung diseases: asbestosis, byssinosis, silicosis, coal workers' pneumoconiosis, lung cancer, occupational asthma	6. Disorders of reproduction: infertility, spontaneous abortion, teratogenesis
2. Musculoskeletal injuries: disorders of the back, trunk, upper extremity, neck, lower extremity; traumatically induced Raynaud's phenomenon	7. Neurotoxic disorders: peripheral neuropathy, toxic encephalitis, psychoses, extreme personality changes (exposure-related)
3. Occupational cancers (other than lung): leukemia; mesothelioma; cancers of the bladder, nose, and liver	8. Noise-induced loss of hearing
4. Amputations, fractures, eye loss, lacerations, and traumatic deaths	9. Dermatologic conditions: dermatoses, burns (scaldings), chemical burns, contusions (abrasions)
5. Cardiovascular diseases: hypertension, coronary artery disease, acute myocardial infarction	10. Psychologic disorders: neuroses, personality disorders, alcoholism, drug dependency

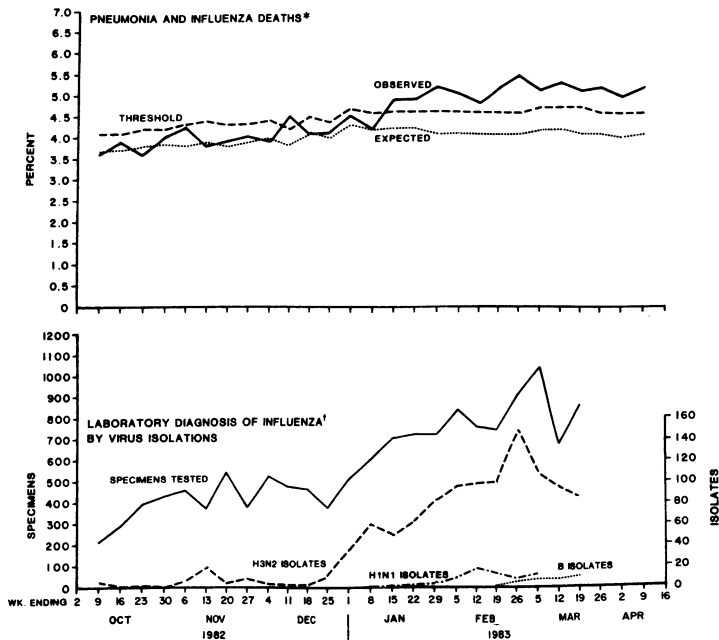
*The conditions listed under each category are to be viewed as *selected examples*, not comprehensive definitions of the category.

Work-Related Diseases and Injuries – Continued

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Current Trends**Update: Influenza Activity — United States, Worldwide**

United States: Morbidity reports collected weekly by each state indicate a continuing decline in influenza outbreaks. For the week ending April 9, 1983, 2 states (Kentucky and New Mexico) reported regional activity, and no state reported widespread activity. In recent weeks, reports of influenza virus isolations from collaborating laboratories have also indicated a decline in influenza activity (Figure 2). Most isolates (89%) continue to be type A(H3N2) virus, despite increases in influenza B and type A(H1N1). For the week ending April 9, 1983, an excess in the ratio of pneumonia and influenza (P&I) deaths to total deaths was reported from 121 cities for the thirteenth consecutive week. The observed ratio was 5.2 and the expected ratio was 4.1 (Figure 2).

FIGURE 2. Indicators of influenza activity — United States, 1982-1983

*REPORTED TO CDC BY 121 CITIES

¹REPORTED TO CDC BY WHO COLLABORATING LABORATORIES (INCLUDING MILITARY SOURCES)

Influenza — Continued

Worldwide: Influenza activity during the 1982-1983 season has generally been moderate and largely associated with influenza type A(H3N2) viruses, which have been reported from all five continents since October 1982. A(H3N2) has been the type most frequently isolated in all areas of the world and has been associated with outbreaks in all age groups. Influenza type A(H1N1) isolates have been associated with sporadic cases and with outbreaks among schoolchildren. Influenza type B isolates, generally associated with sporadic cases, have been identified in several European countries. During late March and early April, influenza activity appeared to be declining in most European countries.

Reported by WHO Weekly Epidemiologic Record, 1983;58(1-13); Respective state epidemiologists and laboratory directors; Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office, WHO Collaborating Center for Influenza, Influenza Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Clarification: Vol. 32, No. 12

- p. 178. In the article, "Measles Importations—United States, 1982," the title of Figure 2 on p. 179 should specify "Imported measles cases."

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The data in this report are provisional, based on weekly reports 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. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

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