CENTERS FOR DISEASE CONTROL

February 20, 1981 / Vol. 30 / No. 6

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Epidemiologic Notes and Reports

Plant Poisonings — New Jersey

Within a 2½-month period in 1980, 27 New Jersey residents were poisoned, in 2 separate episodes, by eating wild plants. The poisonings were serious enough that 21 persons sought medical care; 4 were hospitalized.

Pokeweed poisoning — Passaic County: On July 11, an outbreak of gastrointestinal illness related to eating pokeweed leaves affected campers in a large day camp. Initial reports indicated that the outbreak was limited to a "nature group" whose members had sampled a salad made with this wild plant.

The group, comprising 52 campers and counselors, had been offered pokeweed salad prepared from young leaves picked, boiled, drained, and reboiled that morning, a method that reputedly ensured the plant's edibility. Sixteen (31%) of the 51 interviewed met the case definition (vomiting accompanied by any 3 of the following: nausea, diarrhea, stomach cramps, dizziness, and headache on July 11). Nine others who were not part of the nature group also had tasted the salad; 5 (56%) of these became ill.

Of the 21 ill campers, 18 (86%) experienced nausea, 18 (86%) stomach cramps, 17 (81%) vomiting, 11 (52%) headache, 10 (48%) dizziness, 8 (38%) burning in the stomach or mouth, and 6 (29%) diarrhea. Persons became ill ½ to 5½ hours (mean 3 hours) after eating the pokeweed. Symptoms lasted 1 to 48 hours, with a mean of 24 hours. Eighteen persons were seen in local emergency rooms or physicians' offices. Four of these were hospitalized for 24 to 48 hours for protracted vomiting and dehydration.

Food-history analysis was done for all 60 persons. Salad was the only food item significantly associated with illness. Twenty (43%) of the 46 persons who ate pokeweed became ill compared with 1 (7%) of 14 who did not eat it ($p=.01$). Moreover, for those who ate the salad, illness was associated with eating at least 1 teaspoonful compared with less than 1 teaspoonful ($p=.02$). Vomitus analyzed for 7 persons was negative for *Staphylococcus aureus*.

Jimsonweed toxicosis — Mercer County: Six New Jersey teenagers became ill on September 20, shortly after consuming a combination of jimsonweed seeds and alcohol. The number of pods of seeds eaten ranged from ½ to 2. In addition, each teenager drank up to 1 quart of beer and approximately 1-2 oz of whiskey.

While symptoms, time of onset, and duration of illness were difficult to determine precisely because of the teenagers' disorientation, illness was characterized by hallucinations (all 6), dry mouth (6), thirst (5), blurred vision (5), flushed skin (4), inability to urinate (4), and slurred speech (4). The illness began approximately ½ to 1¾ hours after

Plant Poisonings – Continued

ingestion of the seeds and lasted 18 hours to 9 days. Blurred vision was the longest-lasting symptom.

Three teenagers sought medical treatment in a local emergency room between 8 and 18 hours after eating the seeds. In each case the diagnosis was "drug ingestion," and all 3 were sent home untreated to be observed by family members.

Reported by R Callahan, Passaic County Health Dept; F Piccola, West Windsor Township Health Dept; K Gensheimer, MD, WE Parkin, DVM, State Epidemiologist, J Prusakowski, G Scheiber, New Jersey State Dept of Health; S Henry, PhD, Div of Toxicology, Bur of Foods, Food and Drug Administration; Field Services Div, Epidemiology Program Office, CDC.

Editorial Note: Both pokeweed (*Phytolacca americana*) and jimsonweed (*Datura stramonium*) are ubiquitous, growing in cultivated fields, near roadsides, and in other undeveloped areas. Pokeweed may be found in any size up to 3 meters tall. Small, white, round flowers on long green, red, or purple stalks mature to distinctive purple-black, juicy berries (inkberries). There is disagreement about edible parts, season of edibility, and methods of preparation of pokeweed—and even about whether the plant should be eaten at all. Indeed, the camp counselor in the Passaic outbreak had been preparing pokeweed salad for many years without apparent ill effects. There is general agreement that the root is the most toxic part and that toxin levels throughout the rest of the plant increase as the plant matures. The main toxic agent of pokeweed is phytolaccine, which has strong emetic properties (*1-3*).

Jimsonweed—also known as Jamestown weed, loco weed, and thorn apple, among other names—is a tall, multibranched, annual herb that grows to 1½ meters in height. The leaves are broadly ovate, dark green above, and lighter beneath. The fruit is a prickly 4-celled capsule, containing large, pitted, dark-brown or black seeds. Both the leaves and the seeds are poisonous if ingested. During the autumn, when the pods open and seeds are abundant, reports of atropine-like poisoning in adolescents who have eaten these seeds are not uncommon (*4*). The poisonous substances contained in the entire plant, but concentrated in the seeds, are alkaloids: hyoscyamine, atropine, and hyoscine (scopolamine). The toxin is a stimulant and mydriatic with parasympathetic actions. It blocks motor, secretory, and inhibitory effects of acetylcholine on smooth muscle tissue and can also be a convulsant (*1*).

Many people who use herbs for tea, medicine, or food may be unaware of the possible toxic effect of an herb they consume. Reports show that even some herbs purchased in retail stores have been toxic to consumers (*5*).

The Food and Drug Administration is receiving increasing numbers of requests from consumers and physicians for information on the safety of herbs because of the lack of scientific data in many instances. Information such as botanical identity, amount and part of the plant consumed, and maturity of the plant are often missing from published reports of human herbal poisonings. In addition, because of the difficulty in eliciting histories from intoxicated patients, symptoms resulting from ingestion of the herb may be inaccurately recorded. Furthermore, the pharmacologically active compounds of some herbs are unknown, and methods are currently unavailable for analyzing these compounds. Since the scientific literature on many wild herbs is limited, consumers need to be aware that there are risks involved in eating wild plants of undocumented safety.

References

1. CDC. Diseases transmitted by foods. Atlanta: CDC, 1978 (HEW publication no. (CDC) 78-8237).
2. Hardin JW, Arena JM. Human poisoning from native and cultivated plants, 2nd ed. Durham, N.C.: Duke University Press, 1974;50-4.

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3. Fernald ML, Kinsey AC, Collins RC. Edible wild plants of eastern North America. New York: Harper & Row, 1958;185-7.
4. Shervette RE, Schydlower M, Lampe RM, Fearnow RG. Jimson "loco" weed abuse in adolescents. Pediatrics 1979;63:520-3.
5. Anonymous. Toxic reactions to plant products sold in health-food stores. The Medical Letter on Drugs and Therapeutics 1979;21(no. 7):29-31.

Community Water Supply Contaminated with Caustic Soda — Georgia

On December 16, 1980, the Office of Epidemiology, Georgia Department of Human Resources, was informed by a local sanitarian that a community water system with a well source had been contaminated with excess caustic soda (sodium hydroxide, NaOH) and that, as a consequence, several community residents had reported adverse effects. The water system is 50 years old and is the sole source of water for 252 homes in a former textile mill community.

The problem was first noted on the morning of December 16 by community residents who complained that the tap water was distasteful and unpalatable and had an unusual "slick" feeling. Also, after washing or bathing, some residents experienced skin irritation or itching or developed rashes.

Inquiries by the sanitarian revealed that during the preceding evening approximately 30 gallons of a 50% NaOH solution had accidently been siphoned into the well. The addition of the excess NaOH solution occurred when a check valve on the chemical feeder malfunctioned. The malfunction was associated with a significant decrease in well pressure because of an unusual increase in water demand.

The operator of the water supply was notified of the problem within 1 hour and immediately began to flush the system with water from a nearby city supply. After consulting with the Office of Epidemiology, local sanitarians and police visited each home to advise community residents to discontinue use of the water until late that afternoon after the hot water tanks and water pipes had been flushed. Physicians in the area were contacted and asked to record office visits and calls from patients resulting from presumed contact with or consumption of the contaminated water.

Tap water obtained at the home of one of the first families reporting complaints had a pH of 12.05. Water samples tested at 2 other locations before noon on December 16 had pH values of 11.7 and 10.0, respectively. Other samples were also tested for NaOH concentration and pH. At a local service station the pH of the water was 11.8, and the sample contained 156 ppm NaOH; water from the home of a community resident had a pH of 11.0, and the NaOH content was 25 ppm. Samples also were tested for levels of iron, copper, and other metals; results are pending.

On December 17, the Office of Epidemiology and local sanitarians conducted a systematic door-to-door survey to assess health effects among persons exposed to the water; 209 (83%) of the 252 homes were visited. Adult household members were present and interviewed at 91 (44%) of the visited households. A total of 263 persons resided in the 91 households for an average of 2.9 persons per household. Demographic data obtained for 245 persons showed that 53% were female, 66% were >20 years old, and 10% were

Contamination with Caustic Soda — Continued

<6 years of age. Of 143 persons who consumed water before being notified of the contamination, 17 (12%) had oral and gastrointestinal symptoms including burning and sores in the mouth, abdominal pain, and nausea and/or vomiting. Of 57 persons who either showered or bathed in the contaminated water, 21 (37%) reported skin problems including redness, rash, itching, and pain; these symptoms were also reported by 13 (16%) of 80 persons who only washed at the sink; 5 persons reported eye pain, redness, or itching after water contacted their eyes. Sixteen persons either called or consulted their physicians. A follow-up survey of area physicians did not identify additional problems.

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Editorial Note: Most human exposures to NaOH reported in the literature occurred in occupational settings and involved ingestion and skin/eye contact with concentrated solutions of the chemical. Pain or irritation following cutaneous exposure to NaOH is not necessarily immediate (*1*).

(Continued on page 73)

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

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

DISEASE	6th WEEK ENDING		MEDIAN	CUMULATIVE, FIRST 6 WEEKS		
	February 14 1981	February 9 1980	1976-1980	February 14 1981	February 9 1980	MEDIAN 1976-1980
Aseptic meningitis	28	85	44	366	396	239
Brucellosis	–	8	4	9	22	20
Chickenpox	4,723	5,051	5,481	27,648	26,068	29,059
Diphtheria	1	–	–	3	–	8
Encephalitis: Primary (arthropod-borne & unspec.)	14	13	13	76	66	66
Post-infectious	2	4	4	10	14	14
Hepatitis, Viral: Type B	179	384	288	1,817	1,733	1,678
Type A	231	679	618	2,408	3,024	3,148
Type unspecified	156	260	182	1,177	1,137	1,021
Malaria	7	21	7	131	150	43
Measles (rubeola)	38	161	396	212	704	1,509
Meningococcal infections: Total	114	63	63	529	324	278
Civilian	114	63	63	528	321	277
Military	–	–	–	1	3	1
Mumps	102	259	443	560	1,357	2,225
Pertussis	14	17	26	87	115	160
Rubella (German measles)	41	71	218	247	334	822
Tetanus	1	–	1	8	5	5
Tuberculosis	440	525	577	2,494	2,446	2,919
Tularemia	–	3	2	11	11	11
Typhoid fever	3	5	6	48	21	34
Typhus fever, tick-borne (Rky. Mt. spotted)	1	3	2	7	6	6
Venereal diseases:						
Gonorrhea: Civilian	14,854	19,881	18,419	111,031	112,495	112,178
Military	455	612	568	3,275	3,182	3,205
Syphilis, primary & secondary: Civilian	424	590	477	3,265	3,090	2,775
Military	10	12	11	39	54	40
Rabies in animals	77	96	39	537	515	260

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1981		CUM. 1981
Anthrax	–	Poliomyelitis: Total	–
Botulism	8	Paralytic	–
Cholera	–	Psittacosis Fla. 1	6
Congenital rubella syndrome	–	Rabies in man	–
Leprosy	14	Trichinosis Conn. 5	21
Leptospirosis	4	Typhus fever, flea-borne (endemic, murine)	–
Plague	–		

All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending February 14, 1981 and February 9, 1980 (6th week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKEN-POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-infectious	B	A	Unspecified		
	1981	1981	1981	1981	CUM. 1981	1981	1980	1981	1981	1981	1981	1981	CUM. 1981
UNITED STATES	28	-	4,723	1	3	14	13	2	179	231	156	7	131
NEW ENGLAND	1	-	479	-	-	-	1	-	11	4	11	-	7
Maine	-	-	98	-	-	-	-	-	-	2	-	-	1
N.H.	-	-	19	-	-	-	-	-	1	1	-	-	1
Vt.	-	-	48	-	-	-	-	-	-	-	-	-	-
Mass.	1	-	141	-	-	-	1	-	2	1	11	-	4
R.I.	-	-	28	-	-	-	-	-	4	-	-	-	1
Conn.	-	-	145	-	-	-	-	-	4	-	-	-	-
MID. ATLANTIC	3	-	235	-	-	-	-	-	18	12	4	-	13
Upstate N.Y.	3	-	117	-	-	-	-	-	11	10	3	-	4
N.Y. City	-	-	55	-	-	-	-	-	7	2	1	-	8
N.J.	-	-	NN	-	-	-	-	-	-	-	-	-	-
Pa.	-	-	63	-	-	-	-	-	NA	NA	NA	-	1
E.N. CENTRAL	6	-	2,075	-	-	7	1	-	47	36	23	1	5
Ohio	-	-	252	-	-	4	-	-	12	13	10	-	-
Ind.	-	-	325	-	-	-	1	-	11	4	7	-	1
Ill.	6	-	440	-	-	2	-	-	4	8	2	1	1
Mich.	-	-	667	-	-	-	-	-	13	10	4	-	3
Wis.	-	-	391	-	-	1	-	-	7	1	-	-	-
W.N. CENTRAL	1	-	828	-	-	-	1	-	4	13	7	1	3
Minn.	-	-	-	-	-	-	-	-	2	4	1	-	-
Iowa	-	-	405	-	-	-	1	-	-	8	-	-	1
Mo.	1	-	-	-	-	-	-	-	2	1	3	-	1
N. Dak.	-	-	15	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	26	-	-	-	-	-	-	-	-	-	-
Nebr.	-	-	-	-	-	-	-	-	-	-	1	-	-
Kans.	-	-	382	-	-	-	-	-	-	-	2	1	1
S. ATLANTIC	8	-	541	-	1	1	3	2	60	52	22	5	11
Del.	-	-	4	-	-	-	-	-	8	-	-	-	-
Md.	-	-	3	-	-	-	-	-	6	2	1	2	2
D.C.	-	-	1	-	-	-	-	-	1	-	1	-	-
Va.	1	-	37	-	-	-	-	-	5	2	4	1	4
W. Va.	-	-	148	-	-	-	-	-	-	1	-	-	-
N.C.	2	-	NN	-	-	1	2	-	3	5	5	-	-
S.C.	-	-	3	-	-	-	1	-	5	2	2	-	-
Ga.	2	-	45	-	-	-	-	-	23	18	-	-	2
Fla.	3	-	300	-	1	-	-	2	9	22	9	2	3
E.S. CENTRAL	-	-	89	-	-	2	-	-	8	15	2	-	-
Ky.	-	-	85	-	-	-	-	-	1	2	1	-	-
Tenn.	-	-	NN	-	-	2	-	-	4	7	1	-	-
Ala.	-	-	3	-	-	-	-	-	-	-	-	-	-
Miss.	-	-	1	-	-	-	-	-	3	6	-	-	-
W.S. CENTRAL	5	-	267	-	-	2	2	-	14	63	56	-	4
Ark.	-	-	3	-	-	-	-	-	1	7	4	-	1
La.	2	-	NN	-	-	-	1	-	-	3	4	-	1
Okla.	-	-	-	-	-	-	-	-	4	11	5	-	1
Tex.	3	-	264	-	-	2	1	-	9	42	43	-	1
MOUNTAIN	-	-	76	1	1	2	-	-	7	26	23	-	3
Mont.	-	-	-	1	1	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-	1	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	-	1	-	-
Colo.	-	-	63	-	-	2	-	-	3	8	6	-	1
N. Mex.	-	-	-	-	-	-	-	-	-	-	-	-	-
Ariz.	-	-	NN	-	-	-	-	-	-	6	10	-	2
Utah	-	-	9	-	-	-	-	-	1	2	3	-	-
Nev.	-	-	4	-	-	-	-	-	3	9	3	-	-
PACIFIC	4	-	133	-	1	-	5	-	10	10	8	-	85
Wash.	2	-	114	-	-	-	-	-	7	7	7	-	4
Oreg.	-	-	1	-	-	-	-	-	1	3	-	-	3
Calif.	NA	NA	NA	NA	-	NA	5	-	NA	NA	NA	NA	78
Alaska	1	-	7	-	1	-	-	-	1	-	1	-	-
Hawaii	1	-	11	-	-	-	-	-	1	-	-	-	-
Guam	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-
P.R.	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	2
V.I.	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-
Pac. Trust Terr.	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-

NN: Not notifiable. NA: Not available.
All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending February 14, 1981 and February 9, 1980 (6th week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1981	CUM. 1981	CUM. 1980	1981	CUM. 1981	CUM. 1980	1981	CUM. 1981	1981	1981	CUM. 1981	CUM. 1981
UNITED STATES	38	212	704	114	529	324	102	560	14	41	247	8
NEW ENGLAND	1	8	33	–	37	14	4	25	–	–	37	–
Maine	–	–	–	–	2	1	–	4	–	–	23	–
N.H.	–	3	11	–	3	–	1	3	–	–	9	–
Vt.	–	1	20	–	–	1	–	1	–	–	–	–
Mass.	–	–	–	–	11	7	2	9	–	–	5	–
R.I.	–	–	1	–	3	–	–	3	–	–	–	–
Conn.	1	4	1	–	18	5	1	5	–	–	–	–
MID. ATLANTIC	8	66	132	12	59	46	18	59	2	–	40	1
Upstate N.Y.	5	39	42	5	19	25	3	17	1	–	15	–
N.Y. City	1	10	42	2	3	11	–	7	–	–	8	1
N.J.	2	7	14	4	22	6	5	13	–	–	15	–
Pa.	–	10	34	1	15	4	10	22	1	–	2	–
E.N. CENTRAL	2	7	75	16	54	34	36	170	2	16	54	1
Ohio	–	–	8	12	24	17	7	33	–	–	–	–
Ind.	–	–	5	–	7	4	3	26	1	2	18	–
Ill.	1	1	17	4	8	2	6	21	–	4	11	–
Mich.	1	6	22	–	12	11	15	67	–	3	8	1
Wis.	–	–	23	–	3	–	5	23	1	7	17	–
W.N. CENTRAL	–	–	72	3	32	10	7	44	1	8	14	2
Minn.	–	–	53	2	21	4	–	–	–	2	2	1
Iowa	–	–	–	1	6	–	5	17	–	–	–	–
Mo.	–	–	17	–	2	4	1	2	1	–	–	1
N. Dak.	–	–	–	–	–	1	–	–	–	–	–	–
S. Dak.	–	–	–	–	1	1	–	–	–	–	–	–
Nebr.	–	–	2	–	–	–	–	–	–	–	–	–
Kans.	–	–	–	–	2	–	1	25	–	6	12	–
S. ATLANTIC	20	48	203	23	132	81	20	84	2	5	20	1
Del.	–	–	–	–	4	–	–	2	–	–	–	–
Md.	–	–	1	1	5	9	–	13	–	–	–	–
D.C.	–	–	–	–	1	–	–	–	–	–	–	–
Va.	–	–	22	4	14	8	13	25	–	–	4	–
W. Va.	–	2	1	–	5	3	1	17	–	–	3	–
N.C.	–	–	1	–	16	14	–	3	–	–	2	–
S.C.	–	–	–	1	16	9	1	2	–	–	3	1
Ga.	9	25	133	3	24	16	1	7	1	2	2	–
Fla.	11	21	45	14	47	22	4	15	1	3	6	–
E.S. CENTRAL	1	1	64	11	43	30	7	20	1	–	4	–
Ky.	–	–	24	3	12	6	2	8	1	–	3	–
Tenn.	1	1	2	5	14	11	4	8	–	–	1	–
Ala.	–	–	6	–	9	10	–	3	–	–	–	–
Miss.	–	–	32	3	8	3	1	1	–	–	–	–
W.S. CENTRAL	4	17	18	38	96	34	2	27	2	5	17	1
Ark.	–	–	1	1	10	2	–	–	–	–	–	–
La.	–	–	–	1	5	9	–	3	1	1	1	–
Okla.	–	1	2	2	3	3	–	–	–	–	–	–
Tex.	4	16	15	34	78	20	2	24	1	4	16	1
MOUNTAIN	2	7	28	6	30	22	3	19	1	4	6	1
Mont.	–	–	–	–	1	1	–	–	–	–	–	–
Idaho	–	–	–	–	2	1	–	2	–	–	–	–
Wyo.	–	–	–	–	–	1	–	–	–	–	–	–
Colo.	–	–	2	5	12	7	2	9	1	3	3	–
N. Mex.	–	–	1	–	5	2	–	–	–	–	–	–
Ariz.	–	–	9	–	7	5	–	4	–	–	1	1
Utah	–	–	14	1	3	1	1	2	–	1	2	–
Nev.	2	7	2	–	–	4	–	2	–	–	–	–
PACIFIC	–	58	79	5	46	53	5	112	3	3	55	1
Wash.	–	–	15	1	8	9	1	37	3	3	14	–
Oreg.	–	–	–	2	3	5	1	10	–	–	–	–
Calif.	NA	57	62	–	29	39	NA	58	NA	NA	41	1
Alaska	–	–	–	1	2	–	–	1	–	–	–	–
Hawaii	–	1	2	1	4	–	3	6	–	–	–	–
Guam	NA	–	1	–	–	–	NA	–	NA	NA	–	–
P.R.	NA	12	3	–	1	3	NA	8	NA	NA	–	–
V.I.	NA	–	–	–	–	–	NA	–	NA	NA	–	–
Pac. Trust Terr.	NA	–	2	–	–	–	NA	–	NA	NA	–	–

NA: Not available.
All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending February 14, 1981 and February 9, 1980 (6th week)

REPORTING AREA	TUBERCULOSIS		TULAREMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1981	CUM. 1981	CUM. 1981	1981	CUM. 1981	1981	CUM. 1981	1981	CUM. 1981	CUM. 1980	1981	CUM. 1981	CUM. 1980	CUM. 1981
UNITED STATES	440	2,494	11	3	48	1	7	14,854	111,031	112,495	424	3,265	3,090	537
NEW ENGLAND	13	67	–	–	1	–	–	401	2,970	3,211	7	82	78	–
Maine	1	8	–	–	–	–	–	6	130	216	–	1	–	–
N.H.	–	1	–	–	–	–	–	11	104	114	–	–	–	–
Vt.	–	1	–	–	–	–	–	9	49	100	–	1	–	–
Mass.	10	41	–	–	1	–	–	211	1,181	1,199	6	46	42	–
R.I.	–	3	–	–	–	–	–	18	129	174	1	9	3	–
Conn.	2	13	–	–	–	–	–	146	1,377	1,408	–	25	33	–
MID. ATLANTIC	127	459	–	–	5	–	–	1,647	12,492	12,448	85	551	445	1
Upstate N.Y.	22	81	–	–	1	–	–	524	1,877	1,674	–	48	27	1
N.Y. City	43	176	–	–	4	–	–	600	4,725	5,237	54	336	317	–
N.J.	35	114	–	–	–	–	–	119	2,769	2,499	16	68	47	–
Pa.	27	88	–	–	–	–	–	404	3,121	3,038	15	99	54	–
E.N. CENTRAL	48	342	–	2	4	1	1	2,620	17,191	19,117	10	125	293	63
Ohio	5	57	–	–	–	1	1	1,575	7,638	5,107	5	40	53	3
Ind.	–	23	–	–	–	–	–	257	1,414	1,853	2	15	30	4
Ill.	14	144	–	2	4	–	–	NA	2,656	6,030	NA	23	161	31
Mich.	29	109	–	–	–	–	–	527	3,929	4,041	1	33	41	–
Wis.	–	9	–	–	–	–	–	261	1,554	2,086	2	14	8	25
W.N. CENTRAL	18	74	–	–	1	–	1	844	5,805	4,894	8	58	28	243
Minn.	2	13	–	–	–	–	–	151	911	908	3	17	8	44
Iowa	2	15	–	–	–	–	–	76	531	594	–	3	4	82
Mo.	10	24	–	–	–	–	1	366	2,693	1,998	4	32	15	16
N. Dak.	–	4	–	–	–	–	–	7	53	60	–	–	–	47
S. Dak.	–	5	–	–	1	–	–	21	147	152	–	–	–	24
Nebr.	3	3	–	–	–	–	–	59	429	435	–	2	1	12
Kans.	1	10	–	–	–	–	–	164	1,041	747	1	4	–	18
S. ATLANTIC	94	568	2	–	6	–	3	4,181	28,443	26,759	165	888	687	36
Del.	2	5	1	–	–	–	–	84	479	410	–	1	2	–
Md.	2	43	–	–	–	–	–	347	2,945	2,314	12	67	62	–
D.C.	–	47	–	–	1	–	–	300	1,844	1,955	13	81	49	–
Va.	16	58	–	–	–	–	–	540	2,839	2,334	28	88	66	6
W. Va.	6	26	–	–	3	–	–	68	382	365	1	1	2	2
N.C.	11	116	–	–	1	–	3	630	4,693	4,164	8	63	56	–
S.C.	–	39	1	–	–	–	–	289	2,533	2,818	11	68	24	1
Ga.	23	75	–	–	–	–	–	1,038	6,050	5,011	39	218	185	19
Fla.	34	159	–	–	1	–	–	885	6,678	7,388	53	301	241	8
E.S. CENTRAL	45	215	2	–	1	–	2	1,262	9,304	8,716	36	258	247	25
Ky.	11	57	2	–	–	–	–	180	1,194	1,360	1	12	15	5
Tenn.	10	70	–	–	–	–	1	597	3,457	3,159	13	98	103	16
Ala.	16	80	–	–	–	–	–	273	3,083	2,312	13	84	42	4
Miss.	8	8	–	–	1	–	1	212	1,570	1,885	9	64	87	–
W.S. CENTRAL	58	193	3	1	4	–	–	2,515	16,700	13,976	105	799	586	109
Ark.	5	13	–	–	–	–	–	168	944	976	–	12	18	23
La.	28	56	2	–	–	–	–	450	2,573	1,987	–	108	131	5
Okla.	–	29	–	–	1	–	–	227	1,612	1,508	1	19	5	15
Tex.	25	95	1	1	3	–	–	1,670	11,571	9,505	104	660	432	66
MOUNTAIN	23	65	4	–	2	–	–	850	4,069	4,276	2	84	72	10
Mont.	4	6	1	–	2	–	–	21	139	154	–	1	–	10
Idaho	–	4	1	–	–	–	–	40	185	227	–	5	3	–
Wyo.	–	1	–	–	–	–	–	15	112	132	–	1	3	–
Colo.	–	4	1	–	–	–	–	158	989	1,080	–	15	24	–
N. Mex.	3	12	–	–	–	–	–	47	521	660	–	15	9	–
Ariz.	8	27	–	–	–	–	–	381	1,285	1,054	–	17	20	–
Utah	2	2	1	–	–	–	–	36	202	229	–	–	4	–
Nev.	6	9	–	–	–	–	–	152	636	740	2	30	9	–
PACIFIC	14	511	–	–	24	–	–	534	14,057	19,098	6	420	654	50
Wash.	5	29	–	–	–	–	–	242	1,185	1,613	–	–	35	–
Oreg.	8	20	–	–	1	–	–	182	1,295	1,187	1	10	13	–
Calif.	NA	453	–	NA	21	NA	–	NA	10,817	15,534	NA	395	596	48
Alaska	–	1	–	–	–	–	–	57	402	444	–	1	1	2
Hawaii	1	8	–	–	2	–	–	53	358	320	5	14	9	–
Guam	NA	–	–	NA	–	NA	–	NA	–	16	NA	–	–	–
P.R.	NA	–	–	NA	–	NA	–	NA	308	169	NA	55	43	2
V.I.	NA	–	–	NA	–	NA	–	NA	–	21	NA	–	4	–
Pac. Trust Terr.	NA	–	–	NA	–	NA	–	NA	–	76	NA	–	–	–

NA: Not available.
All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE IV. Deaths in 121 U.S. cities,* week ending February 14, 1981 (6th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	≥65	45-64	25-44	<1	
NEW ENGLAND	706	493	151	37	9	62
Boston, Mass.	209	129	49	18	4	29
Bridgeport, Conn.	53	35	12	4	–	1
Cambridge, Mass.	25	19	4	1	–	2
Fall River, Mass.	28	25	3	–	–	2
Hartford, Conn.	47	31	10	4	2	1
Lowell, Mass.	27	24	2	–	–	1
Lynn, Mass.	23	17	5	1	–	1
New Bedford, Mass.	32	25	5	1	1	1
New Haven, Conn.	40	26	10	2	–	4
Providence, R.I.	69	53	14	1	1	7
Somerville, Mass.	10	9	1	–	–	–
Springfield, Mass.	62	41	15	4	1	8
Waterbury, Conn.	25	21	4	–	–	2
Worcester, Mass.	56	38	17	1	–	3
MID. ATLANTIC	2,570	1,683	607	160	57	127
Albany, N.Y.	54	33	14	3	3	–
Allentown, Pa.	26	18	8	–	–	–
Buffalo, N.Y.	100	69	24	2	3	9
Camden, N.J.	23	12	10	1	–	–
Elizabeth, N.J.	34	25	8	1	–	5
Erie, Pa.†	38	29	8	1	–	1
Jersey City, N.J.	77	50	15	5	3	–
Newark, N.J.††	57	27	17	6	2	3
N.Y. City, N.Y.	1,400	915	324	100	31	51
Paterson, N.J.	30	17	6	5	–	1
Philadelphia, Pa.†	222	124	66	19	5	15
Pittsburgh, Pa.†	72	44	20	4	1	3
Reading, Pa.	45	37	7	–	1	8
Rochester, N.Y.	123	88	24	4	5	10
Schenectady, N.Y.	36	26	10	–	–	5
Scranton, Pa.†	25	20	4	1	–	1
Syracuse, N.Y.	108	74	27	3	2	2
Trenton, N.J.	37	28	7	1	–	2
Utica, N.Y.	26	19	3	2	–	4
Yonkers, N.Y.	37	28	5	2	1	7
E.N. CENTRAL	2,292	1,487	538	133	72	84
Akron, Ohio	76	46	22	5	2	1
Canton, Ohio	46	36	7	3	–	4
Chicago, Ill.	532	327	126	51	13	11
Cincinnati, Ohio	124	88	28	1	4	16
Cleveland, Ohio	178	106	51	7	5	4
Columbus, Ohio	140	88	34	8	6	7
Dayton, Ohio	116	76	30	6	2	5
Detroit, Mich.	267	169	62	17	8	6
Evansville, Ind.	43	32	6	2	3	3
Fort Wayne, Ind.	50	32	16	2	–	5
Gary, Ind.	11	4	3	3	1	–
Grand Rapids, Mich.	61	42	11	3	4	4
Indianapolis, Ind.	169	102	47	7	8	6
Madison, Wis.	36	27	5	2	1	2
Milwaukee, Wis.	136	93	30	7	3	1
Peoria, Ill.	41	31	8	–	2	–
Rockford, Ill.	47	34	9	1	2	3
South Bend, Ind.	60	44	12	2	2	1
Toledo, Ohio	103	69	22	5	4	5
Youngstown, Ohio	56	41	9	1	2	–
W.N. CENTRAL	738	496	160	34	28	49
Des Moines, Iowa	59	42	12	4	–	2
Duluth, Minn.	32	23	5	1	2	4
Kansas City, Kans.	39	21	11	1	2	–
Kansas City, Mo.	128	74	33	9	9	9
Lincoln, Nebr.	25	17	5	–	1	5
Minneapolis, Minn.	106	86	15	2	2	4
Omaha, Nebr.	81	58	21	1	1	4
St. Louis, Mo.	151	93	35	10	9	10
St. Paul, Minn.	56	43	10	2	1	1
Wichita, Kans.	61	39	13	4	1	10

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P&I** TOTAL
	ALL AGES	≥65	45-64	25-44	<1	
S. ATLANTIC	1,482	905	369	107	49	88
Atlanta, Ga.	205	123	51	17	5	7
Baltimore, Md.††	264	159	68	20	7	7
Charlotte, N.C.	84	46	25	6	2	7
Jacksonville, Fla.	150	87	40	13	6	5
Miami, Fla.	167	103	45	10	5	7
Norfolk, Va.	59	31	15	3	7	6
Richmond, Va.	66	44	13	5	3	14
Savannah, Ga.	42	28	10	3	–	5
St. Petersburg, Fla.	105	93	10	1	1	6
Tampa, Fla.	89	63	17	2	5	11
Washington, D.C.	181	90	49	24	7	6
Wilmington, Del.	70	38	26	3	1	7
E.S. CENTRAL	796	481	223	41	35	75
Birmingham, Ala.	133	69	40	9	11	7
Chattanooga, Tenn.	70	47	17	3	3	13
Knoxville, Tenn.	63	51	11	1	–	2
Louisville, Ky.	112	62	34	6	9	17
Memphis, Tenn.	200	128	55	11	1	16
Mobile, Ala.	39	17	15	4	1	3
Montgomery, Ala.	51	33	11	–	5	5
Nashville, Tenn.	128	74	40	7	5	12
W.S. CENTRAL	1,568	920	387	122	50	100
Austin, Tex.	56	38	8	5	1	7
Baton Rouge, La.	69	40	13	6	5	6
Corpus Christi, Tex.	71	43	15	5	4	–
Dallas, Tex.	222	133	52	16	10	5
El Paso, Tex.	56	28	18	3	1	6
Fort Worth, Tex.	106	70	24	6	2	8
Houston, Tex.	415	217	110	44	9	22
Little Rock, Ark.	62	36	16	6	3	8
New Orleans, La.	135	83	40	6	3	5
San Antonio, Tex.	191	107	51	17	6	11
Shreveport, La.	78	48	20	3	2	9
Tulsa, Okla.	107	77	20	5	4	13
MOUNTAIN	631	410	141	35	25	37
Albuquerque, N.Mex.	59	38	16	3	1	9
Colo. Springs, Colo.	27	19	6	1	1	1
Denver, Colo.	127	85	27	4	6	10
Las Vegas, Nev.	66	36	21	7	–	3
Ogden, Utah	24	20	1	1	2	1
Phoenix, Ariz.	154	90	40	12	9	1
Pueblo, Colo.	27	20	6	–	1	1
Salt Lake City, Utah	51	30	10	5	3	1
Tucson, Ariz.	96	72	14	2	2	10
PACIFIC	1,684	1,112	373	107	55	75
Berkeley, Calif.	21	15	4	1	–	1
Fresno, Calif.	78	52	16	3	3	2
Glendale, Calif.	20	14	6	–	–	1
Honolulu, Hawaii ††	55	32	14	4	2	4
Long Beach, Calif.	114	77	21	8	5	3
Los Angeles, Calif.	388	267	74	33	9	17
Oakland, Calif.††	70	45	16	5	3	5
Pasadena, Calif.	32	23	5	2	2	4
Portland, Oreg.	124	87	24	3	5	6
Sacramento, Calif.	88	54	21	9	4	3
San Diego, Calif.	133	76	43	9	2	2
San Francisco, Calif.	166	104	40	12	6	3
San Jose, Calif.	128	81	32	7	3	10
Seattle, Wash.	173	117	39	7	8	7
Spokane, Wash.	59	42	11	4	1	6
Tacoma, Wash.	35	26	7	–	2	1
TOTAL	12,467	7,987	2,949	776	380	697

*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 this week. Figures are estimates based on average percent of regional totals.

Contamination with Caustic Soda – Continued

At least 3 unusual circumstances or conditions caused the contamination of this community water supply: 1) 50% NaOH was being used for control of corrosion instead of the more common agents (soda ash or lime, which are safer to use but require greater operator maintenance due to clogging of the feeders); 2) NaOH was being fed directly into the well, whereas chemicals are usually added to the system at a point after the water is withdrawn from the well; and 3) the well was not adequately vented—most water supply regulations require that wells be properly vented to avoid problems associated with reduced pressure. This episode illustrates the need to ensure that small water supply systems are in compliance with engineering guidelines to prevent the occurrence of chemical exposures.

Reference

1. Morris GE. Chemical alcopecia. Arch Ind Hyg Occup Med 1952;6:530-1.

Tuberculous Infection Associated with Tissue Processing – California

In December 1978, a 62-year-old man was admitted to a community hospital in the East Bay for presumptive bronchiogenic carcinoma. He died less than 48 hours later. No chest X ray was taken. The patient's history showed that he had been admitted to another hospital 8 months earlier because of a fall. A chest X ray taken at that time showed questionable atelectasis in the right upper lung. There was a history of ethanol abuse. At autopsy a caseating lesion was found in the right lung. A stain revealed very heavy concentration of acid-fast bacilli, which were identified in cultures as *Mycobacterium tuberculosis*.

Seventeen employees who had had contact with the patient before his death and 2 staff pathologists and a laboratory assistant present at the autopsy were given skin tests; all were negative. Follow-up skin testing 3 months later showed that the 2 pathologists had converted. Investigation of the families and other close contacts of these 2 staff members revealed no other obvious sources of infection.

Only 1 of the pathologists was present at the autopsy, but both were present when frozen sections of the infected lung were prepared. Tissue was frozen in a cryostat; each frozen piece was then mounted inside the machine on a microtome and sectioned. In order to reduce the freezing time before mounting the tissue, this laboratory sprayed the tissue block with a compressed gas coolant held by hand outside the cryostat. Spraying was continued inside the cryostat after the block was mounted. This maneuver created a heavy aerosol. Masks were not routinely worn during this procedure. Although it cannot be definitively established, it is suspected that the aerosol promoted the transmission of infection for both pathologists. The use of spray coolant has since been discontinued in the laboratory.

Reported by T Barrett, RN, Berkeley, and HA Renteln, MD, California State Dept of Health Services, in the California Morbidity Weekly Report, No. 30, August 1, 1980; and the Tuberculosis Control Div, Center for Prevention Services, CDC.

Editorial Note: Tuberculosis is still not a rare disease in the United States; nearly 28,000 cases were provisionally reported for 1980. Tuberculosis should be included in the differential diagnosis of all respiratory ailments—particularly those affecting older persons with

Tuberculous Infection — Continued

abnormal chest X rays (*1*). Although the patient described above had an abnormal chest X ray 8 months before his death, tuberculosis was not suspected antemortem. In the United States, approximately 4% of the tuberculosis cases reported each year are diagnosed postmortem.

Medical personnel are at risk of acquiring tuberculous infection in the course of their work by inhaling contaminated droplet nuclei, particularly from patients whose disease has not been diagnosed and who therefore are not receiving treatment. The risk can be minimized by a high index of suspicion and by appropriate hospital infection-control procedures (*2*). The patient described above was moribund on admission, probably was not effectively aerosolizing contaminated secretions, and was in the hospital less than 48 hours; thus, it is not surprising in this case that infection was transmitted only to the 2 pathologists who were exposed to an artificially created aerosol.

Aerosols from infected tissue specimens or cultures are created frequently in the laboratory and at autopsy. Processing infected tissue in a cryostat usually produces a certain amount of aerosol, and more aerosol is likely to be produced when pressurized spray is used for rapid freezing. The risk of transmission ought to be reduced by not using compressed gas coolant on tissue specimens that are potentially infectious.

References

1. Kunin CM, ed. Reader questions: suspecting tuberculosis. Hospital Infection Control 1976;3:52.
2. CDC. Guidelines for prevention of TB transmission in hospitals. Atlanta, Ga.: CDC, 1974. (DHEW publication no. 79-8371 [revised Jan 1979]).

Current Trends

Influenza — United States

For the week ending February 6, 1981, 11 states—Alabama, Arkansas, Florida, Georgia, Indiana, Iowa, Kentucky, Maine, Nebraska, North Dakota, and Wisconsin—reported widespread outbreaks of influenza. Fifteen states throughout the country reported regional outbreaks. Deaths due to pneumonia and influenza reported in 121 cities were elevated for the 10th consecutive week since December 13, 1980 (Figure 1).

Influenza A(H1N1) virus has been isolated from sporadic cases in Maine, South Carolina, and West Virginia, raising the total number of states with H1N1 isolates to 19, plus the District of Columbia (*1*). Georgia is the only state that has reported outbreaks due to this subtype (*1*).

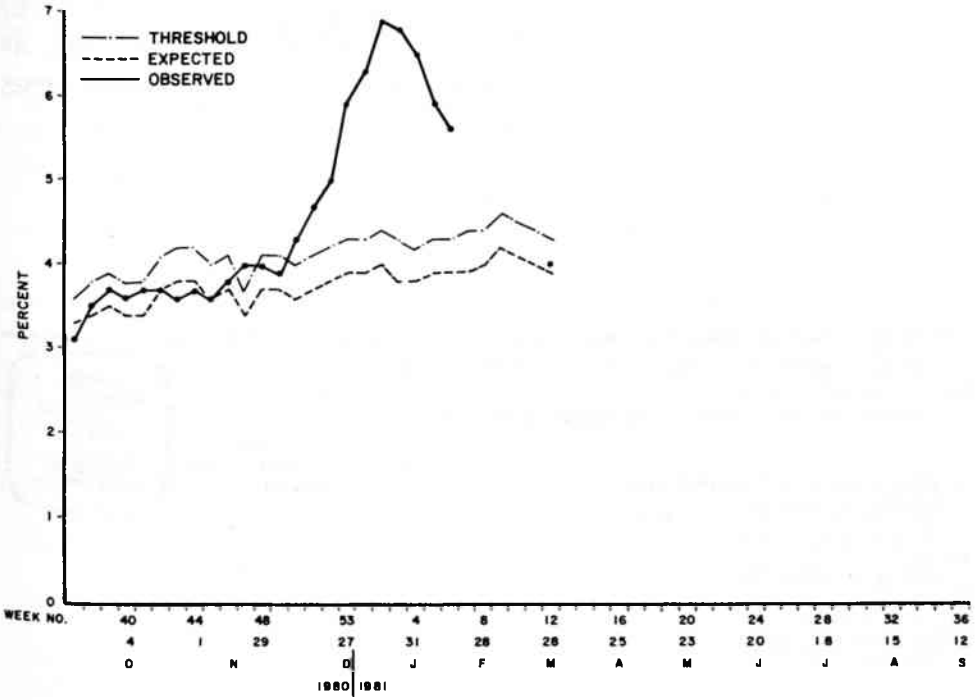
Reported by participating State Epidemiologists and Laboratory Directors; Immunization Div, Center for Prevention Services, Virology Div, Center for Infectious Diseases, Consolidated Surveillance and Communications Activity, Epidemiology Program Office, CDC.

Reference

1. CDC. Influenza — United States. MMWR 1981;30:62.

Influenza – Continued

FIGURE 1. Observed and expected ratio of deaths attributed to pneumonia and influenza in 121 U.S. cities, 1980-81



*Forecasts are made at 4-week intervals except during epidemic periods.

Erratum, Vol. 30, No. 5

p62. In the article "Influenza – United States," the 5th line should read: "Since last reported (*1*), 3 states—Mississippi, Oklahoma, and Vermont . . . ." The last sentence of the 2nd paragraph should read: "With the addition of 6 other states—Colorado, Louisiana, North Carolina, Utah, Vermont, and Washington—a total of 16 states have reported such isolates (*1*)."

The Morbidity and Mortality Weekly Report, circulation 106,874, is published by the Centers 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: Attn: Editor, Morbidity and Mortality Weekly Report, Centers for Disease Control, Atlanta, Georgia 30333.

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