

RECEIVED

CENTER FOR DISEASE CONTROL



Vol. 23, No. 6

WEEKLY REPORT

For Week Ending February 9, 1974

FEB 11 1974

CDC ATLANTA, GA. 30333

Morbidity and Mortality

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE PUBLIC HEALTH SERVICE
DATE OF RELEASE: FEBRUARY 15, 1974 - ATLANTA, GEORGIA 30333

EPIDEMIOLOGIC NOTES AND REPORTS
ANGIOSARCOMA OF THE LIVER AMONG
POLYVINYL CHLORIDE WORKERS - Kentucky

Between September 1967 and December 1973, 4 cases of angiosarcoma of the liver were diagnosed among men employed in the polyvinyl chloride polymerization section of a B.F. Goodrich plant near Louisville, Kentucky. This section of the plant began operations in 1938. It employs about 270 persons and produces polyvinyl chloride as well as a variety of copolymers by polymerization of vinyl chloride monomer. All 4 men had worked continuously in the section for at least 14 years prior to onset of illness (Table 1); all 4 had worked directly in various phases of the polymerization process.

Case 1 presented in August 1967 with an epigastric mass and thrombocytopenia. An exploratory laparotomy was per-

CONTENTS

Epidemiologic Notes and Reports
Angiosarcoma of the Liver Among Polyvinyl Chloride Workers - Kentucky 49
Wild Mushroom Poisoning - Pennsylvania 50
Current Trends
Influenza - United States 55

formed in September 1967; liver biopsy revealed angiosarcoma. Case 2 presented in January 1970 with gastrointestinal (GI) bleeding. Recurrent bleeding in May 1970 led to an exploratory laparotomy at which time a diagnosis of angiosarcoma was made on liver biopsy. Case 3 presented in January 1964 with GI bleeding which recurred in May 1965 with

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

DISEASE	6th WEEK ENDING		MEDIAN 1969-1973	CUMULATIVE, FIRST 6 WEEKS		
	February 9, 1974	February 10, 1973		1974	1973	MEDIAN 1969-1973
Aseptic meningitis	34	29	35	213	238	218
Brucellosis	1	3	1	9	11	11
Chickenpox	3,609	5,305	---	18,811	27,061	---
Diphtheria	1	2	2	7	12	17
Encephalitis:						
Primary: Arthropod-borne and unspecified	19	21	18	86	95	120
Post-Infectious	12	4	5	27	20	26
Hepatitis, Viral:						
Type B	135	120	128	934	805	805
Type A	871	1,027	1,067	4,914	5,775	6,407
Type unspecified	153					
Malaria	6	6	39	18	17	243
Measles (rubeola)	521	704	704	2,414	3,461	3,663
Meningococcal infections, total	34	34	50	156	174	331
Civilian	34	34	49	156	166	307
Military	---	---	2	---	8	15
Mumps	1,762	2,145	2,502	9,148	10,400	12,594
Pertussis	72	---	---	182	---	---
Rubella (German measles)	258	441	823	1,098	2,269	2,964
Tetanus	2	1	1	6	6	6
Tuberculosis, new active	529	562	---	3,040	3,027	---
Tularemia	2	2	2	10	10	10
Typhoid fever	6	4	4	35	22	26
Typhus, tick-borne (Rky. Mt. spotted fever)	---	1	---	12	6	3
Venereal Diseases:						
Gonorrhoea	16,810	14,259	---	97,831	85,951	---
Syphilis, primary and secondary	462	516	---	2,661	2,917	---
Rabies in animals	43	69	67	267	327	347

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax:	1	Poliomyelitis, total:	---
Botulism: Wash. 2	2	Paralytic:	---
Congenital rubella syndrome: Ida. 1, Tex. 1	7	Pittacosis: Tex. 1	2
Leprosy: Hawaii 1	4	Rabies in man:	---
Leptospirosis: Hawaii 1, Ida. 1	6	Trichinosis: N.Y.C. 1, Okla. 1	13
Wague:	---	Typhus, murine: Calif. 1, Va. 1	2

ANGIOSARCOMA*—Continued

signs of portal hypertension. A portacaval shunt was performed, and liver biopsy yielded a diagnosis of cirrhosis. Repeat biopsies in October 1970 and September 1972 confirmed this diagnosis. Autopsy in March 1973 revealed angiosarcoma. Case 4 presented in July 1973 with hepatosplenomegaly, weight loss, and jaundice. Two liver biopsies were interpreted as showing severe cirrhosis. Autopsy in December 1973 revealed angiosarcoma.

In each case, pathologic material revealed the presence of extensive cirrhosis of a non-alcoholic type in addition to angiosarcoma. In 2 cases, the diagnosis of angiosarcoma was made only at autopsy, cirrhosis having been diagnosed 7 years before in Case 3 and 5 months before in Case 4. None of the patients gave histories of prolonged alcohol use or exposure to hepatotoxins outside their work place. In particular, none had ever had exposure to thorium dioxide or to arsenic, 2 materials known specifically to induce hepatic angiosarcoma in man (1,2).

(Reported by John Creech, M.D., Plant Physician, B.F. Goodrich Chemical Company, Louisville, Kentucky; Maurice N. Johnson, M.D., Director of Environmental Health, B.F. Goodrich Chemical Company, Akron, Ohio; Bradford Block, M.D., Medical Consultant, Kentucky Occupational Safety and Health Administration, Kentucky State Department of Labor; National Institute for Occupational Safety and Health, and the Cancer and Birth Defects Division, Bureau of Epidemiology, CDC.)

Editorial Note

Angiosarcoma of the liver is an exceedingly rare tumor. It is estimated that only about 25 such cases occur each year in the United States. Four cases, therefore, among a small number of workers at a single plant is a most unusual event, and one which raises the possibility of some work-related carcinogen, conceivably vinyl chloride itself. Although no data are yet available concerning the occurrence of angiosarcoma among workers at other vinyl chloride plants in the United States, it seems distinctly possible that the problem may be industry-wide. Epidemiologic studies have started to

Table 1
Cases of Angiosarcoma of the Liver
among Polyvinyl Chloride Workers
B. F. Goodrich Plant
Louisville, Kentucky

Case	Age at illness onset	Date of			Years worked with PVC before illness
		Illness onset	Diagnosis	Death	
1	43	Aug. 1967	Sept. 1967	Jan. 7, 1968	17
2	36	Jan. 1970	May 1970	Sept. 27, 1971	14
3	41	Jan. 1964	Mar. 1973	Mar. 3, 1973	14
4	58	July 1973	Dec. 1973	Dec. 19, 1973	27

determine the extent of the problem in the United States, with respect both to angiosarcoma of the liver and to its possible relationship to post-toxic cirrhosis.

Published data concerning the potential hepato-toxicity and oncogenicity of vinyl chloride are limited. Studies in Germany have suggested a link between hepatic damage and occupational exposure to vinyl chloride (3), while Italian workers have suggested that vinyl chloride may cause a wide variety of tumors in animals (4). The chemical concentrations used in these latter experiments, however, far exceed levels likely to be encountered in industrial environments. Efforts to confirm such observations and to measure effects at lower dose levels are now in progress.

References

1. da Silva Horta J, Abbatt JD, Cayolla da Motta L, Roriz ML: Malignancy and other late effects following administration of thorotrast. *Lancet* 2:201-205, 1965
2. Regalson W, Kim U, Ospina J, Holland JF: Hemangioendothelial sarcoma of liver from chronic arsenic intoxication by Fowler's solution. *Cancer* 21:514-522, 1968
3. Marsteller HJ, Lelbach WK, Müller R, et al: Chronisch-toxische Leberschäden bei Arbeitern in der PVC-Produktion. *Dtsch Med Wochenschr* 98:2311-2314, 1973
4. Viola PL, Bigotti A, Caputo A: Oncogenic response of rat skin, lungs, and bone to vinyl chloride. *Cancer Research* 31:516-522, 1971

WILD MUSHROOM POISONING—Pennsylvania

On October 9, 1973, 37 nuns ate their evening meal at a convent in Berks County, Pennsylvania. Between $\frac{3}{4}$ and $4\frac{1}{4}$ hours later (median—approximately 2 hours), 17 nuns developed an illness characterized by profuse sweating (76%), watery diarrhea (76%), chills (58%), and abdominal pain (42%) (Table 2). Six of the nuns were hospitalized; none died.

Food-specific attack rates for foods ingested in the 24 hours before illness strongly implicated mushrooms as the intoxicating food (Table 3). Stool specimens from 4 of the ill nuns and bacteriologic cultures of the remaining mushrooms yielded no enteric pathogens. Remnants of the mushrooms were identified as *Clitocybe sp.* and *Lepiota sp.* Some species of the former genus are known to contain muscarine, which produces parasympathomimetic effects.

The mushrooms had been picked on the grounds of the convent on the afternoon of the outbreak. For several years, the nuns had eaten these mushrooms at meals, and no apparent illness had occurred. On October 9, however, the nun who

Table 2
Symptoms in 17 Ill Nuns
Berks County Convent—October 9, 1973

Symptom	Percent with Symptom
Diarrhea	76
Sweating	76
Chills	58
Abdominal pain	42
Nausea	35
Vomiting	23
Excessive salivation	23
Feverish feeling	18
Dry mouth	12
Blurred vision	12
Headache	6
Weakness	6
Faint feeling	6

(Continued on page 55)

Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES FOR WEEKS ENDING FEBRUARY 9, 1974 AND FEBRUARY 10, 1973 (6th WEEK)

AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS, VIRAL			MALARIA	
						Primary: Arthropod-borne and Unspecified		Post Infectious	Type B	Type A	Type Unspecified		
						1974	1973	1974	1974	1974	1974		
UNITED STATES	34	1	3,609	1	7	19	21	12	135	871	153	6	18
NEW ENGLAND	2	-	756	-	-	-	2	-	5	33	22	2	2
Maine *	-	-	6	-	-	-	-	-	-	-	-	-	-
New Hampshire *	-	-	45	-	-	-	-	-	-	4	-	-	-
Vermont	-	-	12	-	-	-	-	-	-	3	-	-	-
Massachusetts	1	-	390	-	-	-	1	-	3	12	20	-	-
Rhode Island	1	-	79	-	-	-	1	-	2	6	-	2	2
Connecticut	-	-	224	-	-	-	-	-	-	8	2	-	-
MIDDLE ATLANTIC	1	-	133	-	-	-	2	1	11	90	25	-	-
Upstate New York	1	-	60	-	-	-	1	1	1	41	3	-	-
New York City	-	-	59	-	-	-	-	-	4	13	-	-	-
New Jersey	-	-	NN	-	-	-	1	-	4	19	21	-	-
Pennsylvania *	-	-	14	-	-	-	-	-	2	17	1	-	-
EAST NORTH CENTRAL	7	-	1,541	-	-	6	7	1	23	167	4	1	1
Ohio	3	-	176	-	-	5	3	-	2	16	-	-	-
Indiana	2	-	223	-	-	-	-	-	1	20	-	-	-
Illinois	-	-	-	-	-	-	1	1	8	42	1	1	1
Michigan	2	-	593	-	-	1	3	-	6	62	3	-	-
Wisconsin	-	-	549	-	-	-	-	-	6	27	-	-	-
WEST NORTH CENTRAL	1	1	437	-	-	7	3	-	2	32	17	-	-
Minnesota *	-	-	63	-	-	-	-	-	1	3	5	-	-
Iowa	-	1	315	-	-	4	-	-	1	7	3	-	-
Missouri	1	-	4	-	-	2	3	-	-	-	9	-	-
North Dakota	-	-	17	-	-	-	-	-	-	-	-	-	-
South Dakota	-	-	-	-	-	1	-	-	-	8	-	-	-
Nebraska	-	-	2	-	-	-	-	-	-	2	-	-	-
Kansas *	-	-	36	-	-	-	-	-	-	12	-	-	-
SOUTH ATLANTIC	6	-	173	-	1	1	1	2	21	140	12	-	3
Delaware*	-	-	6	-	-	-	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	-	-	-	-	-	-	-
District of Columbia	-	-	3	-	-	-	-	-	1	-	-	-	2
Virginia	-	-	2	-	-	-	-	-	2	25	5	-	1
West Virginia	-	-	158	-	-	-	-	-	-	1	-	-	-
North Carolina	-	-	NN	-	-	-	-	-	3	15	2	-	-
South Carolina	-	-	4	-	-	1	1	-	2	7	-	-	-
Georgia	-	-	-	-	-	-	-	-	-	20	-	-	-
Florida	6	-	-	-	1	-	-	2	13	72	5	-	-
EAST SOUTH CENTRAL	1	-	122	-	-	1	-	-	10	89	19	-	-
Kentucky	1	-	100	-	-	-	-	-	3	10	17	-	-
Tennessee	-	-	-	-	-	1	-	-	6	65	1	-	-
Alabama	-	-	14	-	-	-	-	-	1	11	1	-	-
Mississippi	-	-	8	-	-	-	-	-	-	3	-	-	-
WEST SOUTH CENTRAL	6	-	266	1	1	3	-	7	14	131	4	1	2
Arkansas	-	-	2	-	-	-	-	-	2	7	-	-	-
Louisiana *	-	-	NN	-	-	-	-	-	-	-	-	-	1
Oklahoma	5	-	17	-	-	3	-	6	1	13	4	1	1
Texas	1	-	247	1	1	-	-	1	11	111	-	-	-
MOUNTAIN	-	-	97	-	-	-	1	-	2	42	16	-	-
Montana	-	-	37	-	-	-	-	-	-	4	-	-	-
Idaho	-	-	-	-	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	-
Colorado	-	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico	-	-	21	-	-	-	1	-	-	1	13	-	-
Arizona *	-	-	39	-	-	-	-	-	1	18	-	-	-
Utah	-	-	-	-	-	-	-	-	-	3	3	-	-
Nevada	-	-	-	-	-	-	-	-	1	16	-	-	-
PACIFIC	10	-	84	-	5	1	5	1	47	147	34	2	10
Washington	1	-	61	-	4	1	-	-	2	1	5	-	-
Oregon	-	-	1	-	-	-	-	-	2	13	2	-	-
California *	-	-	-	-	-	-	-	-	-	-	-	-	-
Alaska	9	-	-	-	1	-	5	1	40	108	25	2	10
Hawaii	-	-	10	-	-	-	-	-	3	24	-	-	-
	-	-	12	-	-	-	-	-	-	1	2	-	-
Guam *	-	-	-	-	-	-	-	-	-	-	-	-	-
Puerto Rico *	-	-	22	-	-	-	-	-	-	-	6	-	-
Virgin Islands	-	-	-	-	-	-	-	-	-	-	-	-	-

*Delayed report: Chickenpox: Kansas 133 (1973), Me. 24, N.H. 80, Calif. 49, Guam 3, Puerto Rico 29 (1974)
 Hepatitis B: Pa. 7, Minn. 3, Ariz. 1 (1973)
 Hepatitis A: Pa. 32, La. delete 3, Ariz. 6 (1973), Me. 3, Del. delete 1, Guam 3, Puerto Rico 1 (1974)
 Hepatitis Unspecified: N.H. 1, Puerto Rico 15 (1974)
 Malaria: Ariz. 1 (1973), Ariz. delete 1 (1972)

Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDING FEBRUARY 9, 1974 AND FEBRUARY 10, 1973 (6th WEEK) — Continued

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1974	Cumulative		1974	Cumulative		1974	Cum. 1974	1974	1974	Cum. 1974	Cum. 1974
		1974	1973		1974	1973						
UNITED STATES	521	2,414	3,461	34	156	174	1,762	9,148	72	258	1,098	6
NEW ENGLAND	14	197	1,421	—	7	11	225	1,353	1	16	71	—
Maine *	—	8	8	—	—	—	39	231	—	—	3	—
New Hampshire *	4	118	260	—	1	1	—	69	—	—	4	—
Vermont	—	—	26	—	—	—	1	5	—	—	4	—
Massachusetts	7	32	704	—	1	5	50	247	—	12	40	—
Rhode Island	—	30	118	—	3	—	42	423	—	1	6	—
Connecticut	3	9	305	—	2	5	93	378	1	3	14	—
MIDDLE ATLANTIC	194	722	261	6	18	23	128	685	4	30	82	1
Upstate New York	10	16	31	1	2	7	31	129	4	7	24	—
New York City	5	45	163	1	6	6	10	113	—	6	23	—
New Jersey *	161	515	46	2	7	5	49	209	—	16	29	1
Pennsylvania	18	146	21	2	3	5	38	234	—	1	6	—
EAST NORTH CENTRAL	233	972	977	4	13	15	653	2,821	7	94	419	—
Ohio *	75	431	49	—	4	10	110	699	—	1	45	—
Indiana	6	27	92	—	—	1	116	254	—	31	79	—
Illinois	61	206	345	1	2	1	47	289	—	16	58	—
Michigan *	70	237	303	1	5	1	264	1,184	1	38	184	—
Wisconsin	21	71	188	2	2	2	116	395	6	8	53	—
WEST NORTH CENTRAL	1	54	95	2	10	16	148	647	6	2	15	1
Minnesota	—	42	7	—	4	—	10	19	—	—	2	—
Iowa	—	2	71	—	2	3	108	491	1	1	5	—
Missouri	—	4	3	2	2	8	5	61	5	1	5	1
North Dakota	1	4	6	—	1	—	—	4	—	—	1	—
South Dakota	—	1	—	—	—	2	1	1	—	—	—	—
Nebraska	—	1	1	—	—	—	—	23	—	—	2	—
Kansas	—	—	7	—	1	3	24	48	—	—	—	—
SOUTH ATLANTIC	20	81	101	6	36	26	122	732	4	18	70	1
Delaware	—	2	1	—	3	—	4	17	—	1	3	—
Maryland *	—	2	—	—	4	9	—	13	—	—	—	—
District of Columbia	—	—	—	—	—	1	2	15	—	—	—	—
Virginia	—	4	5	1	7	3	5	67	—	—	2	—
West Virginia	5	25	25	—	2	—	61	369	2	1	29	—
North Carolina	—	—	3	1	11	7	NN	NN	—	—	1	—
South Carolina	2	7	11	—	1	2	2	7	—	1	1	—
Georgia	—	1	7	3	4	3	—	—	—	—	2	—
Florida	13	40	49	1	4	1	48	244	2	15	32	1
EAST SOUTH CENTRAL	5	12	94	5	12	12	225	991	5	18	74	1
Kentucky	4	11	20	—	2	4	82	330	—	4	14	—
Tennessee	—	—	55	5	9	5	123	547	3	14	48	1
Alabama	—	—	—	—	1	2	20	100	2	—	6	—
Mississippi	1	1	19	—	—	1	—	14	—	—	6	—
WEST SOUTH CENTRAL	15	36	147	9	38	23	87	597	36	7	51	1
Arkansas	1	1	4	—	4	2	2	65	—	—	6	—
Louisiana	—	3	13	—	7	2	22	43	—	—	1	—
Oklahoma	1	4	4	1	6	2	2	39	3	—	13	—
Texas *	13	28	126	8	21	17	61	450	33	7	31	1
MOUNTAIN	9	117	58	1	4	10	85	362	—	8	77	—
Montana	8	103	1	—	—	1	3	52	—	6	54	—
Idaho	—	3	9	—	—	—	51	108	—	1	4	—
Wyoming	—	—	1	—	—	—	—	1	—	—	—	—
Colorado *	—	4	12	—	—	2	15	113	—	1	8	—
New Mexico	1	6	30	—	1	1	16	86	—	—	9	—
Arizona	—	1	5	1	2	3	—	—	—	—	—	—
Utah	—	—	—	—	1	1	—	2	—	—	—	—
Nevada	—	—	—	—	—	2	—	—	—	—	2	—
PACIFIC	30	223	307	1	18	38	89	960	9	65	239	1
Washington	1	7	157	—	3	3	10	307	—	6	87	—
Oregon	—	—	63	—	3	2	25	238	1	18	31	—
California	29	216	84	1	12	32	52	372	8	39	117	1
Alaska	—	—	—	—	—	1	—	32	—	—	—	—
Hawaii	—	—	3	—	—	—	2	11	—	2	4	—
Guam *	—	—	2	—	—	—	—	19	—	—	—	—
Puerto Rico *	16	56	188	—	—	—	23	96	1	—	—	—
Virgin Islands	—	—	—	—	—	—	—	2	—	—	—	—

*Delayed Reports: Measles: Me. 2, N.H. 12, Ohio delete 1,
N.J. delete 1, Puerto Rico 21 (1974)
Meningococcal Infections: N.J. 1, Md. 1 (1973)
Mumps: Me. 7, N.H. 3, Guam 9, Puerto Rico 15 (1974)

Pertussis: Texas delete 1 (1974)
Rubella: Me. 2, N.H. 2 (1974)
Tetanus: Mich. 1, Colo. 1 (1973)

Morbidity and Mortality Weekly Report

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDING FEBRUARY 9, 1974 AND FEBRUARY 10, 1973 (6th WEEK) — Continued

AREA	TUBERCULOSIS (New Active)		TULA- REMI A	TYPHOID FEVER		TYPHUS-FEVER TICK-BORNE (Rky. Mt. spotted fever)		VENEREAL DISEASES					RABIES IN ANIMALS	
	1974	Cum. 1974	Cum. 1974	1974	Cum. 1974	1974	Cum. 1974	GONORRHEA		SYPHILIS (Pri. & Sec.)		Cum. 1974		
								1974	Cumulative		1974		Cumulative	
									1974	1973			1974	1973
UNITED STATES	529	3,040	10	6	35	—	12	16,810	97,831	85,951	462	2,661	2,917	267
NEW ENGLAND	23	144	—	2	2	—	—	460	2,712	2,355	17	57	70	3
Maine	5	18	—	—	—	—	—	16	208	139	—	3	2	1
New Hampshire*	3	8	—	—	—	—	—	19	90	68	—	2	2	—
Vermont	—	3	—	—	—	—	—	7	90	36	—	—	4	—
Massachusetts	13	85	—	—	—	—	—	253	1,211	1,079	8	24	27	—
Rhode Island	1	11	—	2	2	—	—	38	203	320	—	2	3	2
Connecticut	1	19	—	—	—	—	—	127	910	713	9	26	32	—
MIDDLE ATLANTIC	84	479	1	—	8	—	9	2,335	12,803	11,405	125	630	641	3
Upstate New York	18	39	1	—	—	—	—	475	2,237	2,558	8	60	40	1
New York City	35	242	—	—	8	—	—	774	5,398	4,656	77	380	419	—
New Jersey	10	105	—	—	—	—	—	432	2,028	1,461	18	91	103	—
Pennsylvania	21	93	—	—	—	—	9	654	3,140	2,730	22	99	79	2
EAST NORTH CENTRAL	97	456	—	—	1	—	—	2,494	12,507	10,476	37	142	159	13
Ohio*	38	164	—	—	—	—	—	866	4,645	3,337	6	32	26	—
Indiana	26	69	—	—	—	—	—	338	1,248	1,255	10	30	41	1
Illinois	17	99	—	—	—	—	—	333	1,387	1,536	6	24	21	2
Michigan	16	124	—	—	1	—	—	627	3,784	3,338	13	45	63	—
Wisconsin	—	—	—	—	—	—	—	330	1,443	1,010	2	11	8	10
WEST NORTH CENTRAL	16	96	1	—	1	—	—	867	4,887	5,249	6	44	35	73
Minnesota*	5	15	—	—	1	—	—	262	1,176	1,094	—	5	13	36
Iowa	1	11	—	—	—	—	—	71	608	663	—	7	2	12
Missouri*	9	52	1	—	—	—	—	237	1,487	2,186	2	22	14	1
North Dakota	1	2	—	—	—	—	—	16	88	82	—	—	—	19
South Dakota	—	5	—	—	—	—	—	37	250	282	—	—	1	—
Nebraska	—	1	—	—	—	—	—	41	390	440	1	1	1	—
Kansas*	—	10	—	—	—	—	—	203	888	502	3	9	4	5
SOUTH ATLANTIC	102	563	1	2	5	—	2	4,000	24,526	22,227	154	870	856	33
Delaware	—	8	—	—	—	—	—	48	296	268	—	18	9	—
Maryland*	—	56	—	—	1	—	1	—	2,046	2,021	—	75	112	—
District of Columbia	6	44	—	—	—	—	—	366	2,004	1,963	16	73	96	—
Virginia	17	81	1	—	—	—	—	380	2,366	2,145	19	128	81	17
West Virginia	8	36	—	—	1	—	—	63	291	325	—	3	3	4
North Carolina	31	112	—	—	—	—	—	558	3,142	3,191	31	78	56	—
South Carolina	4	72	—	—	—	—	—	583	3,002	2,723	24	146	107	—
Georgia*	16	35	—	—	—	—	1	801	4,997	3,760	28	98	185	9
Florida	20	119	—	2	3	—	—	1,201	6,382	5,831	36	251	207	3
EAST SOUTH CENTRAL	65	288	3	1	3	—	—	1,455	7,720	7,226	14	136	246	34
Kentucky	12	63	1	—	1	—	—	52	955	798	5	27	127	20
Tennessee	20	97	2	1	2	—	—	608	3,292	3,028	2	53	46	11
Alabama	23	80	—	—	—	—	—	390	1,784	1,647	3	26	16	3
Mississippi	10	48	—	—	—	—	—	405	1,689	1,753	4	30	57	—
WEST SOUTH CENTRAL	45	438	4	—	2	—	—	2,426	14,641	10,601	42	259	325	70
Arkansas	—	59	1	—	—	—	—	151	1,295	1,397	2	15	19	11
Louisiana*	8	70	1	—	—	—	—	581	2,767	1,926	13	73	92	2
Oklahoma	8	27	1	—	—	—	—	179	1,066	1,216	3	17	25	14
Texas	29	282	1	—	2	—	—	1,515	9,513	6,062	24	154	189	43
MOUNTAIN	20	82	—	—	2	—	1	599	3,698	3,115	6	60	81	7
Montana*	2	10	—	—	—	—	—	39	219	207	—	—	—	—
Idaho	4	4	—	—	—	—	—	28	295	176	1	1	2	—
Wyoming*	—	2	—	—	2	—	—	16	86	11	—	—	1	1
Colorado	7	7	—	—	—	—	1	155	1,056	842	2	13	33	—
New Mexico*	3	25	—	—	—	—	—	118	535	535	—	5	8	3
Arizona*	4	24	—	—	—	—	—	193	1,104	911	3	22	29	3
Utah	—	3	—	—	—	—	—	—	133	167	—	5	—	—
Nevada	—	7	—	—	—	—	—	50	270	266	—	14	8	—
PACIFIC	77	494	—	1	11	—	—	2,174	14,337	13,297	61	463	504	31
Washington	—	33	—	—	1	—	—	203	1,252	1,287	15	15	24	—
Oregon	4	14	—	—	—	—	—	226	1,117	1,211	2	11	15	—
California	67	410	—	1	10	—	—	1,630	11,258	10,161	44	432	434	31
Alaska	—	—	—	—	—	—	—	52	351	311	—	—	16	—
Hawaii	6	37	—	—	—	—	—	63	359	327	—	5	15	—
Guam*	—	—	—	—	—	—	—	—	59	50	—	—	—	—
Puerto Rico*	20	75	—	—	—	—	—	91	316	417	27	118	84	5
Virgin Islands	—	—	—	—	—	—	—	2	18	20	—	—	2	—

*Delayed reports: Tuberculosis: N.H. delete 3, Ohio delete 2, Minn. 9, Kansas 3, Ga. 14, La. delete 1, Ariz. 15 (1973), Minn. delete 7, Mo. 1, Puerto Rico 19 (1974) RMSF: Md. 1 (1973)

Gonorrhoea: Mont. 42, La. delete 46 (1973), N.H. 15, La. delete 1, N.M. delete 1, Guam 4, Puerto Rico 44 (1974)
Syphilis: Iowa 1, Wv. delete 1, Puerto Rico 49 (1974)
Rabies: Puerto Rico 1 (1974)

Morbidity and Mortality Weekly Report

Week No.

TABLE IV. DEATHS IN 121 UNITED STATES CITIES FOR WEEK ENDING FEBRUARY 9, 1974

6

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

Area	All Causes					Pneumonia and Influenza All Ages	Area	All Causes					Pneumonia and Influenza All Ages
	All Ages	65 years and over	45-64 years	25-44 years	Under 1 year			All Ages	65 years and over	45-64 years	25-44 years	Under 1 year	
NEW ENGLAND	726	453	191	39	25	43	SOUTH ATLANTIC	1,168	661	344	87	38	60
Boston, Mass.	226	133	58	21	6	11	Atlanta, Ga.	138	69	47	12	3	7
Bridgeport, Conn.	52	28	20	1	2	3	Baltimore, Md.	202	119	59	16	2	6
Cambridge, Mass.	29	21	5	2	1	5	Charlotte, N. C.	48	23	15	5	4	—
Fall River, Mass.	25	19	6	—	—	1	Jacksonville, Fla.	101	51	33	9	3	1
Hartford, Conn.	48	28	18	—	1	—	Miami, Fla.	90	57	20	7	3	5
Lowell, Mass.	28	17	9	1	1	1	Norfolk, Va.	67	31	22	7	6	10
Lynn, Mass.	20	15	4	1	—	1	Richmond, Va.	96	51	37	4	3	7
New Bedford, Mass.	27	22	3	—	—	5	Savannah, Ga.	33	21	9	1	1	2
New Haven, Conn.	60	30	16	2	9	1	St. Petersburg, Fla.	82	69	11	1	1	8
Providence, R. I.	59	33	18	5	2	6	Tampa, Fla.	63	34	17	4	4	6
Somerville, Mass.	8	5	3	—	—	—	Washington, D. C.	202	108	63	18	5	5
Springfield, Mass.	39	22	13	2	1	4	Wilmington, Del.	46	28	11	3	3	3
Waterbury, Conn.	36	29	6	1	—	—	EAST SOUTH CENTRAL	705	393	209	45	37	32
Worcester, Mass.	69	51	12	3	2	5	Birmingham, Ala.	106	66	26	5	6	1
MIDDLE ATLANTIC	2,606	1,688	642	127	84	104	Chattanooga, Tenn.	49	29	15	2	3	—
Albany, N. Y.	46	34	6	5	—	—	Knoxville, Tenn.	45	33	10	—	1	—
Allentown, Pa.	28	18	8	1	1	1	Louisville, Ky.	138	73	47	10	3	9
Buffalo, N. Y.	175	116	39	10	8	—	Memphis, Tenn.	180	96	46	14	17	2
Camden, N. J.	36	21	12	1	1	1	Mobile, Ala.	40	23	12	2	1	2
Elizabeth, N. J.	32	24	7	—	—	—	Montgomery, Ala.	32	17	11	1	2	3
Erie, Pa.	35	27	7	—	—	6	Nashville, Tenn.	115	56	42	11	4	10
Jersey City, N. J.	59	43	15	1	—	—	WEST SOUTH CENTRAL	1,175	661	314	88	48	33
Newark, N. J.	60	36	17	2	4	2	Austin, Tex.	46	29	12	2	2	2
New York City, N. Y. †	1,488	949	364	77	50	63	Baton Rouge, La.	19	8	4	5	—	—
Paterson, N. J.	53	34	15	2	2	3	Corpus Christi, Tex.	53	30	15	3	3	1
Philadelphia, Pa.	—	—	—	—	—	—	Dallas, Tex.	197	116	56	13	4	3
Pittsburgh, Pa.	183	100	63	13	5	7	El Paso, Tex.	44	23	7	3	6	—
Reading, Pa.	39	29	5	4	1	2	Fort Worth, Tex.	99	54	33	4	2	1
Rochester, N. Y.	112	80	21	3	4	5	Houston, Tex.	215	99	61	28	13	8
Schenectady, N. Y.	36	27	8	1	—	4	Little Rock, Ark.	47	28	10	4	3	1
Scranton, Pa.	41	27	11	2	1	1	New Orleans, La.	161	90	44	8	8	5
Syracuse, N. Y.	91	54	27	2	6	2	San Antonio, Tex.	167	100	43	12	4	3
Trenton, N. J.	30	23	5	—	1	—	Shreveport, La.	73	48	16	2	3	4
Utica, N. Y.	25	20	3	2	—	2	Tulsa, Okla.	54	36	13	4	—	5
Yonkers, N. Y.	37	26	9	1	—	5	MOUNTAIN	493	298	115	34	25	23
EAST NORTH CENTRAL	2,360	1,389	673	135	75	71	Albuquerque, N. Mex.	57	26	16	7	4	3
Akron, Ohio	57	27	19	4	4	—	Colorado Springs, Colo.	39	22	10	5	—	1
Canton, Ohio	40	26	7	3	—	—	Denver, Colo.	92	55	28	5	1	5
Chicago, Ill.	665	382	183	51	26	19	Las Vegas, Nev.	22	10	3	6	2	—
Cincinnati, Ohio	163	97	48	5	5	4	Ogden, Utah	17	10	4	1	1	2
Cleveland, Ohio	172	88	60	14	4	2	Phoenix, Ariz.	134	88	32	5	4	8
Columbus, Ohio	90	53	25	6	3	3	Pueblo, Colo.	13	9	3	1	—	1
Dayton, Ohio	96	55	30	4	3	2	Salt Lake City, Utah	53	31	11	1	8	3
Detroit, Mich.	335	199	96	19	8	11	Tucson, Ariz.	66	47	8	3	5	—
Evansville, Ind.	51	36	9	3	—	3	PACIFIC	1,461	911	369	76	45	49
Fort Wayne, Ind.	50	36	11	—	1	6	Berkeley, Calif.	16	13	1	2	—	—
Gary, Ind.	—	—	—	—	—	—	Fresno, Calif.	59	41	12	4	1	—
Grand Rapids, Mich.	58	41	11	1	4	4	Glendale, Calif.	32	21	5	4	—	1
Indianapolis, Ind.	142	75	46	9	5	2	Honolulu, Hawaii	52	24	11	4	10	2
Madison, Wis.	41	23	9	1	7	4	Long Beach, Calif.	87	68	16	2	1	3
Milwaukee, Wis.	102	70	26	3	—	4	Los Angeles, Calif.	457	288	118	20	7	15
Peoria, Ill.	55	30	15	5	2	—	Oakland, Calif.	84	54	21	4	2	3
Rockford, Ill.	38	23	12	2	—	1	Pasadena, Calif.	43	29	10	2	1	1
South Bend, Ind.	42	26	15	1	—	4	Portland, Oreg.	125	72	34	7	5	1
Toledo, Ohio	102	69	26	2	3	—	Sacramento, Calif.	69	37	23	3	3	1
Youngstown, Ohio	61	33	25	2	—	2	San Diego, Calif.	—	—	—	—	—	—
WEST NORTH CENTRAL	795	503	191	40	34	35	San Francisco, Calif.	154	87	45	12	5	3
Des Moines, Iowa	54	35	13	3	3	—	San Jose, Calif.	46	27	15	2	—	1
Duluth, Minn.	29	23	5	—	—	—	Seattle, Wash.	141	79	43	7	6	10
Kansas City, Kans.	42	21	15	4	2	3	Spokane, Wash.	54	39	10	2	3	4
Kansas City, Mo.	110	65	26	11	5	2	Tacoma, Wash.	42	32	5	1	1	4
Lincoln, Nebr.	26	19	4	2	1	2	Total	11,489	6,957	3,048	671	411	450
Minneapolis, Minn.	109	68	29	3	7	2	Expected Number	13,195	7,864	3,559	827	456	549
Omaha, Nebr.	73	43	10	4	7	5							
St. Louis, Mo.	209	137	51	7	6	8							
St. Paul, Minn.	66	46	17	1	—	6							
Wichita, Kans.	77	46	21	5	3	7							

† Delayed report for week ending February 2, 1974

Erratum, Vol. 23, No. 1, p. 3

The following changes should be made in the list of ZIG regional consultants.

Table 4
ZIG Regional Consultants

Region	Consultant	Region	Consultant
New England	Adolf W. Karchmer, M.D. Martin S. Hirsch, M.D. Mass. Gen. Hosp. Boston, Mass. 02114 Office: (617) 726-3812 Home: (617) 237-3646 (Dr. Karchmer) (617) 969-2587 (Dr. Hirsch)	Midwest	Richard Hong, M.D. Sheldon Horowitz, M.D. Univ. of Wis. Med. Ctr. Madison, Wis. 53706 Office: (608) 262-6954 Home: (608) 836-8189 (Dr. Hong) (608) 274-3991 (Dr. Horowitz)
Mid-Atlantic	Philip A. Brunell, M.D. Anne A. Gershon, M.D. N.Y. Univ. Med. Ctr. N.Y., N.Y. 10016 Office: (212) 561-5259 Home: (212) 369-5126 (Dr. Gershon)	Mountain	Kenneth McIntosh, M.D. C. Henry Kempe, M.D. Univ. of Colo. Sch. of Med. Denver, Colo. 80220 Office: (303) 394-8501 Home: (303) 388-0538 (Dr. McIntosh) (303) 377-6563 (Dr. Kempe)
Mideast	Richard G. Judelsohn, M.D. 857 Delaware Ave. Buffalo, N.Y. 14209 Office: (716) 884-8018 Home: (716) 688-5579	Pacific	Moses Grossman, M.D. Delmer Pascoe, M.D. Univ. of Calif. Service San Francisco Gen. Hosp. San Francisco, Calif. 94110 Office: (415) 648-8200, ext. 441 Home: (415) 681-0475 (Dr. Grossman) (415) 562-3242 (Dr. Pascoe)
Southeast & National	Robert L. Rosenberg, M.D. Joel D. Meyers, M.D. John F. Modlin, M.D. J. Lyle Conrad, M.D. CDC, Atlanta, Ga. 30333 Office: (404) 633-3311, ext. 3736, 3739 Home: (404) 378-0379 (Dr. Rosenberg) (404) 237-3204 (Dr. Meyers) (404) 325-4319 (Dr. Modlin) (404) 636-3902 (Dr. Conrad)		

The Morbidity and Mortality Weekly Report, circulation 36,000, is published by the Center for Disease Control, Atlanta, Ga.

Director, Center for Disease Control
Director, Bureau of Epidemiology, CDC
Editor, MMWR
Managing Editor, MMWR

David J. Sencer, M.D.
Philip S. Brachman, M.D.
Michael B. Gregg, M.D.
Deborah L. Jones, B.S.

The data in this report are provisional, based on weekly telegraphs to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

In addition to the established procedures for reporting morbidity and mortality, the editor welcomes accounts of interesting outbreaks or case investigations of current interest to health officials.

Address all correspondence to: Center for Disease Control
Attn: Editor
Morbidity and Mortality Weekly Report
Atlanta, Georgia 30333

DHEW Publication No. (CDC) 74-8017

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
CENTER FOR DISEASE CONTROL
ATLANTA, GEORGIA 30333

OFFICIAL BUSINESS

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF HEW
HEW 399



9/19/06
Mrs. Mary F Jackson, Library
Center for Disease Control