



Morbidity and Mortality

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE PUBLIC HEALTH SERVICE

DATE OF RELEASE: DECEMBER 29, 1975 - ATLANTA, GEORGIA 30333

CONTENTS

Epidemiologic Notes and Reports	
Fatal Mushroom Poisonings - New York City	429
Deaths at a Rendering Plant - Ohio	435
Current Trends	
Primary and Secondary Syphilis - United States, October 1975	430
Influenza - Trust Territory and Hawaii	435

EPIDEMIOLOGIC NOTES AND REPORTS FATAL MUSHROOM POISONINGS - New York City

In October, 2 persons died in New York City following an illness compatible with poisoning from amatoxin-containing mushrooms.

Case 1

On October 16, 1975, a 37-year-old resident of Martha's Vineyard, Massachusetts, ate raw wild mushrooms which he had collected from his backyard. Within hours he experienced diarrhea, cramps, nausea, and vomiting; these symptoms persisted for 2 days. He also noted peripheral paresthesias and decreased mental acuity. On October 19, he was admitted to a hospital in Brooklyn, New York, with marked hepatic dys-

function. The next day he lapsed into hepatic coma and did not respond to charcoal hemoperfusion. At this point he was treated with thioctic acid without apparent effect. The remainder of his hospital course was further complicated by

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

DISEASE	WEEK ENDING		MEDIAN 1970-1974	CUMULATIVE, FIRST 51 WEEKS		
	December 20, 1975	December 21, 1974		December 20, 1975	December 21, 1974	MEDIAN 1970-1974
Aseptic meningitis	57	47	58	4,008	3,128	4,625
Brucellosis	6	6	2	260	188	183
Chickenpox	3,478	2,793	---	139,821	119,689	---
Diphtheria	---	7	3	285	247	207
Encephalitis	Primary	15	20	2,543	1,061	1,488
	Post-Infectious	2	3	297	247	274
Hepatitis, Viral	Type B	303	137	11,670	9,782	8,650
	Type A	607	663	34,097	40,671	53,681
	Type unspecified	212	186	8,200	8,061	---
Malaria	13	2	5	415	258	806
Measles (rubeola)	359	235	380	23,635	21,977	31,059
Meningococcal infections, total	25	14	24	1,398	1,314	1,336
	Civilian	25	20	1,370	1,285	1,316
Military	---	---	---	28	29	48
Mumps	1,172	1,614	1,614	57,397	56,533	70,247
Pertussis	21	25	---	1,520	1,725	---
Rubella (German measles)	103	86	268	16,097	11,741	27,832
Tetanus	---	1	2	93	94	117
Tuberculosis	689	552	---	32,532	29,817	---
Tularemia	3	3	3	110	138	157
Typhoid fever	6	6	6	362	419	411
Typhus, tick-borne (Rky. Mt. spotted fever)	6	8	1	817	775	521
Venereal Diseases:						
Gonorrhea	Civilian	18,461	18,270	---	976,705	880,674
	Military	457	585	---	28,111	29,359
Syphilis, primary and secondary	Civilian	547	493	---	25,021	24,893
	Military	4	10	---	342	470
Rabies in animals	28	37	43	2,305	2,833	3,259

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax	1	Poliomyelitis, total:	7
Botulism	15	Paralytic:	7
Congenital rubella syndrome	27	Psittacosis:	48
Leprosy, Ore. 1	145	Rabies in man:	2
Leptospirosis, Tex. 1	63	Trichinosis: Mass. 11, Conn. 1, N.J. 2	143
Plague	16	Typhus, murine:	33

*Delayed Reports: Poliomyelitis, Paralytic: NY State delete 1. Psittacosis: Pa. delete 1. Trichinosis: Alaska 9. Typhus, Murine: Tex. 1

MUSHROOM POISONINGS — Continued

renal insufficiency and massive gastrointestinal hemorrhage. He died on October 31. Necropsy revealed massive hepatic necrosis and acute tubular necrosis. Mushrooms picked from the backyard of the patient were identified as *Amanita phalloides*.

Case 2

On October 21, 1975, a 70-year-old resident of the Bronx, New York, cooked and ate wild mushrooms which he had collected from a park near the Whitestone Bridge in the Bronx. Ten hours later he experienced severe diarrhea, abdominal cramps, nausea, and vomiting. The following morning he was diagnosed as having gastroenteritis by an emergency room physician. Intravenous fluids and antispasmodics were administered, and he was discharged. The next day he was admitted to another hospital with hepatic and renal failure. Despite aggressive supportive therapy, he died 2 days later. Limited necropsy revealed areas of hepatic necrosis.

On November 14, the park where the mushrooms had been picked was explored; only a few mushrooms were found. These were speciated at the Bronx Botanical Park and determined not to be of the *Amanita* genus or other known genera of poisonous mushrooms.

(Reported by CT Rogerson, PhD, Bronx Botanical Gardens;

P Rhodes, MD, A Sutton, MD, Kings County Hospital Center; S Friedman, MD, R Katz, MD, JS Marr, MD, New York City Epidemiologist, Bur of Infectious Disease Control, New York City; Enteric Diseases Branch, Bacterial Diseases Div, Bur of Epidemiology, CDC.)

Editorial Note

These 2 patients had a clinical illness consistent with poisoning by mushroom species containing amatoxins; *A. phalloides* was probably the species responsible for case 1.

In 1974, 6 outbreaks of mushroom poisoning affecting 9 patients were reported to CDC. Two of these outbreaks were caused by *Galerina autumnalis* and *G. marginata*; these are members of the amanita toxin group which cause a serious illness with a relatively delayed onset. Other members of this group, *A. phalloides* (the death cap), *A. virosa* (the destroying angel), and *A. verna*, account for more than 95% of fatal mushroom poisonings worldwide.

Thioctic acid, widely used in Europe for mushroom poisoning, is available in the United States as an experimental drug. It may be obtained from the National Institutes of Health, Bethesda, Maryland by contacting Dr. Frederick Bartter or Dr. Jerry Mitchell (301-496-1518 weekdays, 301-656-4000 or 202-244-5562 nights and weekends).

CURRENT TRENDS

PRIMARY AND SECONDARY SYPHILIS — United States, October 1975

The 2,342 primary and secondary syphilis cases reported in October 1975 were 2.5% more than the 2,285 cases reported in October 1974. During the first 10 months (January-October) of 1975, such cases totaled 21,581, rep-

resenting an increase of 1.3% over the number reported in the same time period of the previous year.

(Reported by the Venereal Disease Control Div, Bur of State Services, CDC.)

SUMMARY OF REPORTED PRIMARY AND SECONDARY SYPHILIS CASES
BY REPORTING AREA: OCTOBER 1975 AND OCTOBER 1974 — PROVISIONAL DATA

Reporting Area	October		Calendar Year Cumulative January-October		Reporting Area	October		Calendar Year Cumulative January-October	
	1975	1974	1975	1974		1975	1974	1975	1974
Connecticut	17	18	187	156	Arkansas	8	8	55	85
Maine	9	3	35	13	Louisiana	63	43	450	515
Massachusetts	52	60	475	531	New Mexico	18	14	132	78
New Hampshire	1	2	15	11	Oklahoma	15	12	76	111
Rhode Island	4	2	21	15	Texas	101	144	1258	1196
Vermont	1	1	8	2	DHEW REGION VI TOTAL	205	221	1971	1985
DHEW REGION I TOTAL	84	86	741	748	Iowa	1	2	27	34
New Jersey	75	53	673	714	Kansas	9	15	122	69
New York (Excluding NYC)	24	44	344	443	Missouri	19	27	238	353
New York City	271	239	2460	2572	Nebraska	1	0	18	10
DHEW REGION II TOTAL	374	336	3477	3729	DHEW REGION VII TOTAL	30	44	405	466
Delaware	7	7	76	72	Colorado	18	24	97	123
District of Columbia	55	50	573	534	Montana	2	2	6	4
Maryland (Excluding Baltimore)	23	26	185	208	North Dakota	0	1	4	7
Baltimore	24	34	309	414	South Dakota	0	0	4	2
Pennsylvania (Excluding Philadelphia)	36	27	323	198	Utah	2	0	14	10
Philadelphia	21	69	329	575	Wyoming	0	0	6	2
Virginia	44	48	487	636	DHEW REGION VIII TOTAL	22	27	131	148
West Virginia	2	6	33	20	Arizona	18	23	207	213
DHEW REGION III TOTAL	212	267	2315	2657	California (Excluding LA and SF)	160	117	1551	1030
Alabama	22	26	217	208	Los Angeles*	199	194	1606	1605
Florida	284	284	2751	2400	San Francisco*	81	95	819	757
Georgia (Excluding Atlanta)	81	47	570	563	Hawaii	3	3	47	25
Atlanta*	47	47	377	418	Nevada	2	4	44	51
Kentucky	18	23	148	243	DHEW REGION IX TOTAL	463	436	4274	3681
Mississippi	44	50	247	235	Alaska	0	4	6	8
North Carolina	128	73	925	774	Idaho	3	1	16	10
South Carolina	52	67	476	604	Oregon	14	22	116	94
Tennessee	40	32	363	391	Washington	12	12	177	107
DHEW REGION IV TOTAL	716	649	6074	5836	DHEW REGION X TOTAL	29	39	315	219
Illinois (Excluding Chicago)	21	16	231	217	UNITED STATES TOTAL	2342	2285	21581	21299
Chicago*	86	63	647	691	Puerto Rico	63	91	642	763
Indiana (Excluding Indianapolis)	4	7	92	101	Virgin Islands	6	2	27	25
Indianapolis*	2	6	39	43	U.S. Incl. Terr.	2411	2378	22250	22087
Michigan	39	35	289	357	Note: Cumulative totals include revised and delayed reports through previous months.				
Minnesota	4	4	93	64	Source: HSM 9.98 CDC, VD Control Division, Atlanta, Ga 30333				
Ohio	44	41	425	268					
Wisconsin	7	8	62	89					
DHEW REGION V TOTAL	207	180	1878	1830					

*County Data

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDING DECEMBER 20, 1975 AND DECEMBER 21, 1974 (51st WEEK)

AREA	ASEPTIC MENIN- GITIS	BRUCELL- LOSIS	CHICKEN- POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS, VIRAL			MALARIA	
						Primary: Arthropod- borne and Unspecified		Post In- fectious	Type B	Type A	Type Unspecified		
						1975	1974	1975	1975	1975	1975		
UNITED STATES	57	6	3,478	-	285	15	15	2	303	607	212	13	415
NEW ENGLAND	1	1	268	-	-	-	1	-	10	18	16	-	24
Maine	-	-	-	-	-	-	-	-	-	-	-	-	2
New Hampshire	-	-	10	-	-	-	-	-	-	1	-	-	1
Vermont	-	-	14	-	-	-	-	-	-	3	-	-	3
Massachusetts	1	-	140	-	-	-	1	-	3	2	15	-	9
Rhode Island	-	-	53	-	-	-	-	-	-	4	-	-	2
Connecticut	-	1	51	-	-	-	-	-	7	8	1	-	7
MIDDLE ATLANTIC	6	1	126	-	-	-	2	1	58	85	53	1	97
Upstate New York	3	-	104	-	-	-	-	-	9	19	3	-	11
New York City	3	-	21	-	-	-	-	-	8	14	-	-	29
New Jersey	-	-	NN	-	-	-	-	-	28	23	47	-	13
Pennsylvania	-	1	1	-	-	-	2	1	13	29	3	1	44
EAST NORTH CENTRAL	11	-	1,844	-	5	5	4	-	61	101	16	-	15
Ohio	-	-	77	-	-	2	1	-	11	34	-	-	4
Indiana	-	-	184	-	-	-	-	-	2	9	-	-	-
Illinois	3	-	285	-	4	-	1	-	19	15	11	-	5
Michigan	6	-	765	-	1	3	1	-	22	38	5	-	6
Wisconsin	2	-	533	-	-	-	1	-	7	5	-	-	-
WEST NORTH CENTRAL	2	1	424	-	7	4	2	-	17	46	10	-	16
Minnesota	1	-	6	-	-	3	-	-	13	15	-	-	6
Iowa	-	1	351	-	-	1	1	-	-	7	1	-	-
Missouri	-	-	5	-	-	-	1	-	3	-	5	-	7
North Dakota	1	-	-	-	6	-	-	-	-	15	-	-	1
South Dakota	-	-	-	-	-	-	-	-	-	-	-	-	-
Nebraska	-	-	14	-	1	-	-	-	1	3	-	-	2
Kansas	-	-	48	-	-	-	-	-	-	6	4	-	-
SOUTH ATLANTIC	12	1	271	-	-	4	1	-	40	85	34	11	67
Delaware	-	-	1	-	-	-	-	-	-	-	-	-	-
Maryland	1	-	7	-	-	2	-	-	4	9	2	-	10
District of Columbia	-	-	7	-	-	-	-	-	4	2	-	5	15
Virginia	1	-	11	-	-	1	-	-	4	6	5	-	8
West Virginia	-	-	177	-	-	-	-	-	1	8	-	1	3
North Carolina	3	-	NN	-	-	1	1	-	4	4	8	1	7
South Carolina	1	-	-	-	-	-	-	-	-	-	1	-	2
Georgia	-	-	-	-	-	-	-	-	-	5	-	-	10
Florida	6	1	68	-	-	-	-	-	23	51	18	4	12
EAST SOUTH CENTRAL	1	-	38	-	-	1	1	1	16	32	2	-	11
Kentucky	-	-	36	-	-	-	-	-	-	1	-	-	3
Tennessee	-	-	NN	-	-	-	-	-	8	15	1	-	-
Alabama	1	-	1	-	-	-	-	1	6	9	1	-	6
Mississippi	-	-	1	-	-	1	1	-	2	7	-	-	2
WEST SOUTH CENTRAL	7	1	126	-	6	-	3	-	30	79	41	-	22
Arkansas	-	-	-	-	-	-	-	-	1	10	4	-	1
Louisiana	1	-	NN	-	-	-	-	-	4	9	4	-	-
Oklahoma	5	1	55	-	-	-	3	-	7	13	2	-	2
Texas	1	-	71	-	6	-	-	-	18	47	31	-	19
MOUNTAIN	2	1	115	-	30	-	-	-	9	51	20	-	15
Montana	-	-	24	-	6	-	-	-	1	1	-	-	1
Idaho	-	-	6	-	-	-	-	-	-	4	1	-	-
Wyoming	-	-	-	-	-	-	-	-	-	1	-	-	-
Colorado	1	-	51	-	1	-	-	-	5	8	-	-	8
New Mexico	-	-	-	-	8	-	-	-	-	5	1	-	-
Arizona	-	-	-	-	15	-	-	-	1	9	3	-	4
Utah	1	1	33	-	-	-	-	-	2	17	15	-	2
Nevada	-	-	1	-	-	-	-	-	-	6	-	-	-
PACIFIC	15	-	266	-	237	1	1	-	62	110	20	1	148
Washington	-	-	242	-	213	-	-	-	7	11	5	-	6
Oregon	-	-	1	-	-	-	-	-	10	13	1	-	10
California	14	-	-	-	6	1	1	-	43	76	14	1	127
Alaska	1	-	15	-	18	-	-	-	1	9	-	-	2
Hawaii	-	-	8	-	-	-	-	-	1	1	-	-	3
Guam*	-	-	-	-	-	-	-	-	-	-	-	-	-
Puerto Rico	-	-	9	-	-	-	-	-	-	12	-	-	1
Virgin Islands	-	-	-	-	-	-	-	-	-	-	3	-	-

*Delayed Reports: Asep. Meng.: Mo delete 2. Chickenpox: Calif. 22, Guam 1. Hep A: Me. 1, N. H. 1. Hep. Unspec: Me. 1, Mo. delete 1

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDING DECEMBER 20, 1975 AND DECEMBER 21, 1974 (51st WEEK) - Continued

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1975	Cumulative		1975	Cumulative		1975	Cum. 1975	1975	1975	Cum. 1975	Cum. 1975
		1975	1974		1975	1974						
UNITED STATES	359	23,835	21,977	25	1,398	1,314	1,172	57,397	21	103	16,097	93
NEW ENGLAND	4	358	960	-	80	79	95	2,175	-	6	2,095	3
Maine	-	15	45	-	7	4	-	83	-	-	43	-
New Hampshire	-	22	212	-	4	11	3	133	-	-	307	-
Vermont *	-	75	56	-	2	13	-	19	-	1	72	-
Massachusetts	-	114	403	-	28	18	9	297	-	2	1,223	1
Rhode Island	-	3	61	-	7	11	21	852	-	-	28	-
Connecticut	4	129	183	-	32	22	62	791	-	3	422	2
MIDDLE ATLANTIC	31	2,319	8,324	3	145	194	80	3,269	3	25	1,846	13
Upstate New York	24	1,052	1,000	2	46	70	14	1,156	2	23	347	2
New York City	1	167	644	-	36	42	20	942	1	1	191	2
New Jersey	1	477	5,710	1	23	53	21	442	-	-	1,027	3
Pennsylvania	5	623	970	-	40	29	25	729	-	1	284	6
EAST NORTH CENTRAL	134	7,176	8,571	2	203	177	517	23,323	8	46	4,726	6
Ohio	2	112	3,075	-	68	67	59	2,737	1	-	649	2
Indiana	46	546	284	-	10	21	23	2,294	-	8	1,044	-
Illinois	1	1,863	2,191	2	27	13	89	2,795	5	5	368	3
Michigan *	38	3,218	2,334	-	75	54	229	9,533	-	24	1,675	-
Wisconsin	47	1,437	687	-	23	22	117	5,964	2	9	990	1
WEST NORTH CENTRAL	11	5,148	819	1	93	103	84	4,325	1	3	1,485	11
Minnesota	-	231	85	-	20	33	12	217	-	-	37	2
Iowa	10	684	134	1	9	15	15	1,506	-	1	31	3
Missouri *	-	273	273	-	47	32	1	941	1	2	747	2
North Dakota	-	1,061	37	-	2	3	2	513	-	-	71	-
South Dakota	-	356	28	-	1	3	-	6	-	-	18	-
Nebraska *	1	356	94	-	3	3	-	86	-	-	21	-
Kansas	-	2,147	168	-	11	14	54	1,056	-	-	560	4
SOUTH ATLANTIC	19	486	605	6	278	253	106	4,071	-	2	1,630	17
Delaware	-	35	16	-	8	5	-	13	-	-	21	-
Maryland	-	62	24	2	34	25	31	449	-	-	38	1
District of Columbia	-	2	3	-	5	1	3	158	-	-	-	-
Virginia	-	40	38	-	21	42	35	850	-	-	325	2
West Virginia	8	222	230	-	5	9	32	1,455	-	2	238	1
North Carolina	-	2	5	2	53	52	1	126	-	-	44	6
South Carolina	1	1	57	1	40	22	-	74	-	-	780	2
Georgia	-	40	4	-	18	8	-	17	-	-	4	-
Florida	10	82	228	1	94	89	4	929	-	-	180	5
EAST SOUTH CENTRAL	11	377	291	1	185	130	57	5,057	-	1	1,002	9
Kentucky	3	158	198	-	77	50	19	1,862	-	-	245	3
Tennessee	-	178	57	-	61	56	34	2,380	-	1	724	2
Alabama	-	5	21	1	33	14	4	443	-	-	23	1
Mississippi	8	36	15	-	14	10	-	372	-	-	10	3
WEST SOUTH CENTRAL	61	551	257	4	213	206	58	4,906	5	8	774	21
Arkansas *	-	-	7	-	13	14	-	186	-	-	20	1
Louisiana *	-	2	14	-	39	50	-	343	-	-	283	5
Oklahoma *	59	271	30	1	16	21	25	333	-	3	101	-
Texas	2	278	206	3	145	121	33	4,044	5	5	370	15
MOUNTAIN	80	1,655	875	2	42	42	32	1,124	4	2	531	-
Montana	-	50	373	1	9	1	1	44	-	-	253	-
Idaho	2	18	54	-	5	3	7	70	-	-	74	-
Wyoming	-	3	6	-	1	3	-	2	4	-	-	-
Colorado	1	1,164	144	-	11	9	3	670	-	1	137	-
New Mexico	-	16	62	-	4	3	19	59	-	1	20	-
Arizona	-	83	21	-	3	10	-	-	-	-	2	-
Utah	77	293	15	1	8	9	-	176	-	-	37	-
Nevada	-	28	200	-	1	4	2	103	-	-	8	-
PACIFIC	8	5,765	1,275	6	159	130	143	9,147	-	10	2,005	13
Washington	-	300	78	1	23	18	77	4,637	-	3	359	1
Oregon	-	159	7	2	11	17	16	757	-	3	193	-
California	8	5,201	1,124	1	114	88	47	3,647	-	3	1,432	11
Alaska	-	-	-	2	9	4	3	52	-	-	-	-
Hawaii	-	65	66	-	2	3	-	54	-	1	21	1
Guam *	-	26	20	-	2	2	-	32	-	-	8	-
Puerto Rico	-	733	674	-	1	6	39	1,162	-	-	30	17
Virgin Islands	-	8	35	-	-	-	-	250	-	-	3	3

*Delayed Reports: TB: Mich. delete 1, Mo. delete 1, Nebr. delete 1, La. delete 1. Tularemia: Ark. 2, RMSF: Okla. delete 2. GC: Vt. 32, La. delete 1, Mont. delete 1, Guam 8

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDING DECEMBER 20, 1975 AND DECEMBER 21, 1974 (51st WEEK) - Continued

AREA	TUBERCULOSIS		TULA- REMIA	TYPHOID FEVER		TYPHUS-FEVER TICK-BORNE (RMSF)		VENEREAL DISEASES (Civilian Cases Only)						RABIES IN ANIMALS
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1975	Cum. 1975	Cum. 1975	1975	Cum. 975	1975	Cum. 1975	1975	Cumulative		1975	Cumulative		
									1975	1974		1975	1974	
UNITED STATES	689	32,532	110	6	362	6	817	18,461	976,705	680,674	547	25,021	24,893	2,305
NEW ENGLAND	26	1,226	-	1	17	-	6	565	27,327	23,976	9	827	886	70
Maine	-	75	-	-	-	-	-	40	2,117	2,033	-	35	46	43
New Hampshire	1	31	-	-	-	-	-	7	695	790	-	16	13	2
Vermont	1	29	-	-	-	-	-	14	632	623	-	7	3	-
Massachusetts	19	706	-	1	11	-	2	263	12,892	11,019	5	541	625	12
Rhode Island	2	135	-	-	-	-	3	82	2,126	2,055	-	23	16	4
Connecticut	3	250	-	-	6	-	1	159	8,865	7,456	4	205	183	9
MIDDLE ATLANTIC	132	5,850	4	2	67	2	88	1,641	111,113	106,851	92	4,537	5,331	90
Upstate New York	34	911	3	-	10	2	36	272	20,272	20,217	9	400	521	70
New York City	19	2,241	-	2	30	-	2	900	46,466	47,240	58	2,683	3,085	-
New Jersey	22	1,187	1	-	13	-	10	117	16,621	15,091	11	711	823	-
Pennsylvania	57	1,511	-	-	14	-	40	352	27,754	26,303	14	743	902	20
EAST NORTH CENTRAL	70	4,495	5	-	40	-	19	3,097	162,434	142,306	48	2,045	2,134	119
Ohio *	26	1,227	-	-	14	-	16	848	45,495	37,111	11	508	321	5
Indiana	4	562	-	-	-	-	1	121	13,513	13,701	3	149	193	11
Illinois	22	1,326	-	-	16	-	1	1,166	56,901	47,388	28	976	1,094	24
Michigan	18	1,217	1	-	9	-	1	759	31,128	31,425	4	332	426	9
Wisconsin *	-	163	4	-	1	-	-	203	15,397	12,681	2	80	100	70
WEST NORTH CENTRAL	22	1,162	21	1	17	-	32	1,008	49,590	46,222	11	622	639	495
Minnesota	3	179	-	1	4	-	-	269	9,875	9,237	-	110	86	138
Iowa *	4	128	1	-	1	-	-	57	7,133	6,064	4	84	38	97
Missouri	10	530	16	-	7	-	19	435	18,158	15,813	6	276	410	50
North Dakota	1	18	-	-	-	-	-	10	786	739	-	5	7	99
South Dakota	-	70	-	-	-	-	-	26	1,840	2,088	-	5	3	48
Nebraska	1	41	1	-	3	-	2	87	4,378	3,974	-	18	10	4
Kansas	3	196	3	-	2	-	11	124	7,420	8,207	1	124	85	59
SOUTH ATLANTIC	127	7,175	18	-	49	-	405	3,500	237,273	225,085	170	7,597	7,740	341
Delaware	2	132	-	-	-	-	4	37	3,373	3,153	5	88	80	5
Maryland	20	1,161	1	-	11	-	30	585	29,102	24,053	7	559	753	7
District of Columbia*	20	369	1	-	4	-	-	235	13,830	18,642	12	674	649	-
Virginia	26	855	7	-	7	-	111	419	23,282	20,941	12	597	696	101
West Virginia	6	263	-	-	4	-	4	72	3,122	2,626	1	57	20	3
North Carolina	22	1,151	-	-	2	-	129	375	33,915	30,965	21	1,034	883	12
South Carolina	18	463	3	-	7	-	84	147	22,218	20,836	6	541	678	11
Georgia	13	1,025	5	-	3	-	37	549	44,396	43,564	35	1,052	1,128	165
Florida	-	1,756	1	-	11	-	6	1,081	64,035	60,305	71	2,995	2,853	37
EAST SOUTH CENTRAL	83	2,867	13	-	32	2	111	1,641	82,346	73,830	8	1,138	1,227	148
Kentucky	24	568	1	-	7	-	12	132	10,643	9,262	2	168	263	93
Tennessee	37	1,095	12	-	17	-	72	665	32,581	29,349	2	420	451	21
Alabama	13	784	-	-	3	2	10	516	22,980	20,516	4	264	251	34
Mississippi *	9	416	-	-	5	-	17	328	16,142	14,703	-	286	262	-
WEST SOUTH CENTRAL	87	3,744	44	-	29	2	147	2,115	120,609	114,148	62	2,292	2,169	478
Arkansas	6	479	16	-	1	1	21	288	13,006	11,731	2	73	95	81
Louisiana	10	482	2	-	10	-	1	318	20,795	23,115	21	533	555	8
Oklahoma*	4	302	9	-	1	-	93	255	11,557	10,061	4	91	140	103
Texas *	67	2,481	17	-	17	1	32	1,254	75,251	69,241	35	1,595	1,379	286
MOUNTAIN	23	1,008	3	1	10	-	8	942	39,714	34,320	10	570	585	269
Montana	3	75	1	-	-	-	5	41	2,051	1,919	1	7	4	165
Idaho	-	32	-	-	-	-	2	50	2,053	1,730	-	16	12	1
Wyoming	-	30	1	-	1	-	-	20	960	807	-	10	2	5
Colorado	4	220	-	-	1	-	1	278	10,762	9,354	5	102	147	32
New Mexico	5	137	-	-	2	-	-	171	7,007	4,991	1	156	94	37
Arizona	7	413	-	1	6	-	-	250	10,424	9,653	1	205	253	26
Utah	4	53	1	-	-	-	-	58	2,472	2,140	2	18	12	3
Nevada	-	48	-	-	-	-	-	74	3,985	3,726	-	56	61	-
PACIFIC	119	5,005	2	1	101	-	1	3,952	146,295	111,936	137	5,393	4,182	255
Washington	18	443	1	-	6	-	1	178	13,073	12,157	-	194	135	4
Oregon	9	198	-	-	-	-	-	182	11,047	11,445	6	147	114	7
California	69	3,743	1	1	92	-	-	3,405	116,237	82,140	130	4,990	3,891	277
Alaska	-	62	-	-	1	-	-	129	3,580	2,906	1	7	10	7
Hawaii	3	559	-	-	2	-	-	58	2,362	2,288	-	55	32	-
Guam *	-	61	-	-	-	-	-	-	360	-	-	13	-	-
Puerto Rico	10	500	-	-	8	-	-	73	2,870	2,995	18	697	901	42
Virgin Islands	-	3	-	-	2	-	-	5	224	754	4	45	53	-

*Delayed Reports: Measles: Wisc. delete 1, Iowa delete 1, D.C. delete 1, Okla. delete 2, Texas delete 1, Guam 1. Pertussis: Ohio delete 1, Iowa 19, Miss. 3

Week No.
51

TABLE IV. DEATHS IN 121 UNITED STATES CITIES FOR WEEK ENDING DECEMBER 20, 1975

(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	673	441	173	22	20	33	SOUTH ATLANTIC	1,178	662	345	86	47	45
Boston, Mass.	203	119	62	9	6	8	Atlanta, Ga.	130	75	33	12	6	4
Bridgeport, Conn.	44	35	7	-	1	2	Baltimore, Md.	225	124	74	13	6	3
Cambridge, Mass.	29	22	6	-	-	1	Charlotte, N. C.	61	25	20	6	5	1
Fall River, Mass.	35	22	11	-	-	-	Jacksonville, Fla.	82	48	21	10	3	1
Hartford, Conn.	48	32	10	3	1	4	Miami, Fla.	126	74	39	8	2	14
Lowell, Mass.	28	18	7	2	-	2	Norfolk, Va.	65	31	23	1	7	8
Lynn, Mass.	19	17	1	-	1	2	Richmond, Va.	63	32	23	5	2	3
New Bedford, Mass.	20	16	4	-	-	1	Savannah, Ga.	43	28	12	2	-	2
New Haven, Conn.	43	31	10	2	-	3	St. Petersburg, Fla.	63	56	3	3	1	1
Providence, R. I.	61	33	21	2	3	4	Tampa, Fla.	72	45	13	6	3	3
Somerville, Mass.	10	6	3	1	-	-	Washington, D. C.	201	98	66	19	11	5
Springfield, Mass.	56	35	13	2	5	3	Wilmington, Del.	47	26	18	1	1	-
Waterbury, Conn.	21	17	2	1	1	-							
Worcester, Mass.	56	38	16	-	2	3							
MIDDLE ATLANTIC	2,994	1,868	768	179	90	117	EAST SOUTH CENTRAL	636	375	169	46	26	42
Albany, N. Y.	62	31	19	3	4	-	Birmingham, Ala.	88	51	17	10	5	3
Allentown, Pa.	24	18	6	-	-	-	Chattanooga, Tenn.	51	34	16	-	-	7
Buffalo, N. Y.	141	94	39	4	2	15	Knoxville, Tenn.	44	33	9	2	-	2
Camden, N. J.	35	17	13	3	-	1	Louisville, Ky.	90	45	27	6	9	11
Elizabeth, N. J.	24	18	4	1	1	-	Memphis, Tenn.	184	110	56	10	4	5
Erie, Pa.	32	20	10	1	-	4	Mobile, Ala.	58	35	13	5	2	3
Jersey City, N. J.	41	33	6	-	-	-	Montgomery, Ala.	29	19	8	1	1	2
Newark, N. J.	76	39	20	9	6	1	Nashville, Tenn.	92	48	23	12	5	9
New York City, N. Y. †	1,519	947	359	108	48	54	WEST SOUTH CENTRAL	1,193	654	325	87	81	52
Paterson, N. J.	38	23	12	1	2	5	Austin, Tex.	50	37	8	3	1	6
Philadelphia, Pa.	402	250	110	21	14	4	Baton Rouge, La.	58	33	12	2	8	8
Pittsburgh, Pa.	195	102	67	13	8	17	Corpus Christi, Tex.	29	21	7	-	1	2
Reading, Pa.	46	38	6	2	-	2	Dallas, Tex.	172	90	52	17	7	2
Rochester, N. Y.	125	77	39	6	-	6	El Paso, Tex.	48	24	13	4	2	5
Schenectady, N. Y.	33	23	7	2	-	1	Fort Worth, Tex.	89	46	25	7	9	1
Scranton, Pa.	33	25	8	-	-	-	Houston, Tex.	217	93	72	16	25	8
Syracuse, N. Y.	76	52	15	3	4	2	Little Rock, Ark.	61	32	17	7	3	2
Trenton, N. J.	38	19	17	1	1	3	New Orleans, La.	167	96	41	11	15	3
Utica, N. Y.	24	20	4	-	-	-	San Antonio, Tex.	158	94	39	10	10	3
Yonkers, N. Y.	30	22	7	1	-	2	Shreveport, La.	63	34	24	4	-	4
							Tulsa, Okla.	81	54	15	6	-	8
EAST NORTH CENTRAL	2,402	1,401	641	165	105	62	MOUNTAIN	530	313	122	47	33	24
Akron, Ohio	71	47	16	2	4	-	Albuquerque, N. Mex.	53	27	11	8	5	3
Canton, Ohio	49	33	11	2	-	-	Colorado Springs, Colo.	31	21	7	2	1	5
Chicago, Ill.	591	332	165	51	24	14	Denver, Colo.	120	67	28	11	12	5
Cincinnati, Ohio	126	78	32	8	3	2	Las Vegas, Nev.	19	8	5	3	-	2
Cleveland, Ohio	182	94	65	8	9	4	Ogden, Utah	16	13	2	1	-	2
Columbus, Ohio	126	73	30	10	9	2	Phoenix, Ariz.	126	75	32	13	3	-
Dayton, Ohio	117	67	29	10	3	2	Pueblo, Colo.	27	15	8	2	1	5
Detroit, Mich.	335	180	93	33	19	15	Salt Lake City, Utah	54	31	12	3	8	2
Evansville, Ind.	61	35	20	4	1	3	Tucson, Ariz.	84	56	17	4	3	-
Fort Wayne, Ind.	53	35	14	1	2	3							
Gary, Ind.	28	10	6	2	5	-	PACIFIC	1,726	1,085	401	128	53	38
Grand Rapids, Mich.	48	33	10	3	1	2	Berkeley, Calif.	15	11	2	2	-	-
Indianapolis, Ind.	151	82	36	15	9	3	Fresno, Calif.	55	32	12	8	1	1
Madison, Wis.	31	17	8	2	2	4	Glendale, Calif.	26	23	-	1	-	1
Milwaukee, Wis.	153	108	32	4	5	2	Honolulu, Hawaii	58	30	13	4	7	2
Peoria, Ill.	39	26	9	2	2	1	Long Beach, Calif.	119	69	41	5	3	3
Rockford, Ill.	41	29	9	1	1	5	Los Angeles, Calif.	565	331	135	55	19	11
South Bend, Ind.	51	32	10	2	3	-	Oakland, Calif.	74	44	17	5	6	3
Toledo, Ohio	94	52	32	3	2	-	Pasadena, Calif.	28	19	8	1	-	-
Youngstown, Ohio	55	38	14	2	1	-	Portland, Oreg.	116	84	26	4	1	2
WEST NORTH CENTRAL	679	437	151	41	26	32	Sacramento, Calif.	62	37	19	3	3	-
Des Moines, Iowa	62	44	10	3	1	3	San Diego, Calif.	119	74	28	7	1	2
Duluth, Minn.	25	16	7	1	-	3	San Francisco, Calif.	193	126	41	18	3	4
Kansas City, Kans.	24	13	7	-	-	3	San Jose, Calif.	73	51	8	9	2	2
Kansas City, Mo.	110	72	24	3	8	7	Seattle, Wash.	137	94	32	4	4	1
Lincoln, Nebr.	32	27	4	-	-	2	Spokane, Wash.	50	33	11	2	3	3
Minneapolis, Minn.	106	62	27	8	5	3	Tacoma, Wash.	36	27	8	-	-	3
Omaha, Nebr.	64	41	11	9	1	-							
St. Louis, Mo.	160	95	42	15	4	4	Total	12,011	7,236	3,095	801	481	445
St. Paul, Minn.	45	34	9	1	1	2	Expected Number	12,626	7,706	3,292	784	404	456
Wichita, Kans.	51	33	10	1	6	5							

†Delayed Report for Week Ending December 20, 1975

INFLUENZA – Trust Territory and Hawaii

A/Victoria/3/75(H3N2)-like strains of influenza virus have been reported in association with outbreaks of influenza in the Trust Territory of the Pacific Islands and in Hawaii.

Kwajalein Atoll-Kwajalein Missile Range, Trust Territory of the Pacific Islands

Between October 11-November 1, an outbreak of acute febrile upper respiratory disease occurred among the residents on Kwajalein Missile Range in the Trust Territory of the Pacific Islands. A similar outbreak had recently occurred among the Marshallese population on the neighboring island of Ebeye.

Investigation revealed a clinical attack rate of 30% among the population of 3,400 with cases clustered in families and evenly distributed among adults and children. Serologic studies indicated that an influenza A virus was the cause of the outbreak.

A/Victoria-like strains were isolated from 2 asymptomatic individuals from Kwajalein passing through Hawaii during the time of the outbreak.

Hawaii

During October, 5 isolates of influenza B were reported from Hawaii. The specimens were submitted by private practitioners and were obtained from sporadic cases. Isolates

have been characterized as similar to the B/Hong Kong/5/72 strain.

In November, an outbreak of influenza occurred in a private elementary/secondary school in Honolulu. During the outbreak approximately 200 students out of 2,600 enrolled were seen in the dispensary for influenza-like illness. A total of 41 of the 611 boarding students were hospitalized in the infirmary during the course of the outbreak. Primary findings in those ill were fever, sore throat, and cough. Of 12 throat swabs taken from November 14-21, 1 isolate of an A/Victoria-like strain was obtained from a 9th grade boy and 4 isolates of influenza B were obtained from other students.

Another isolation of an A/Victoria-like strain of influenza A was obtained from a 4th grade boy attending a public elementary school on the outskirts of Honolulu. He was cultured in mid-November during a small outbreak of febrile upper respiratory illness in that school.

(Reported by G Kobayashi, A Oda, and NH Wiebenga, MD, State Epidemiologist, State Dept of Health, Honolulu, Hawaii; J Beal, MD, O Currid, and R Sullivan, Kwajalein Missile Range; FT Palacios, MD, Territorial Epidemiologist, Saipan, Trust Territory of the Pacific Islands; Respiratory Virology Branch, Virology Div, Bur of Laboratories, and Field Services Div, Bur of Epidemiology, CDC.)

EPIDEMIOLOGIC NOTES AND REPORTS

DEATHS AT A RENDERING PLANT – Ohio

On June 30, 1975, 6 men died of asphyxiation at an animal waste products rendering plant in Franklin County (Columbus), Ohio. In response to a request from the Occupational Safety and Health Administration (OSHA), the National Institute of Occupational Safety and Health began an investigation of the operations of the plant.

The animal waste products at this plant are delivered by truck, weighed, and dumped into a subterranean holding pit. After the trucks are unloaded, they are washed out with the drainage entering a pit below the scales (pit 1). This pit normally drains into an adjoining pit (pit 2) by gravity through a 6-inch drain pipe. Before this accident, however, the drain pipe had been clogged for between 2-7 days.

On June 30, a maintenance man descended into pit 2 to open the clogged drain and spent approximately 20 minutes in the pit with no apparent ill effects. After unclogging the drain, he immediately returned to the surface. Later he reentered the pit to shut off a sump pump, but collapsed while attempting to climb out of the pit. Assuming that the man had slipped and fallen, 3 men went to aid him; they, too, collapsed unconscious.

A 2-man rescue squad then arrived; believing the problem to be an electrical one, they entered pit 2 to attempt rescue. Almost immediately, they also fell to the pit floor unconscious. Additional help was sought from fire department rescuers, who removed the 6 men from the pit using self-contained air packs. Many of these and subsequent rescuers became symptomatic during the rescue operations; 6 were hospitalized with dizziness, faintness, shortness of breath, chest heaviness, coughing, choking, nausea, and vomiting. Four of the 6 fallen men were dead when removed from the pit; 1 was dead on arrival at the hospital; and 1 died at the hospital 4 days later, without having regained consciousness.

Postmortem findings showed cause of death in all of the men to be general anoxia with acute edema of the brain and lungs. Four had evidence of severe respiratory irritation; 1 showed greenish discoloration of the viscera – a finding associated with hydrogen sulfide poisoning. Blood from the deceased workers was negative for cyanomethemoglobin, and carboxyhemoglobin did not exceed normal ranges. Methane was found in the blood of 5 patients and sulfmethemoglobin levels were negative, consistent with sulfide poisoning. Coins and keys carried by the patients were deeply darkened, indicating the formation of metallic sulfides.

Present medical and environmental evidence suggests that hydrogen sulfide alone or in combination with methane and carbon dioxide was the most likely cause of the accident. The clogging of the drainpipe may have permitted organic material to accumulate in the scale pit where it underwent anaerobic and aerobic decomposition, producing gases such as hydrogen sulfide, carbon dioxide, or vapors of organic acids (1). Investigations are continuing in an attempt to determine which of these gases or what combination was primarily responsible for the illnesses and deaths.

(Reported by W Adrion, MD, Franklin County Coroner; J Bernans, ME Olney, RC Temple, Lt, Franklin Township Fire Dept; M Fulmer, R Kimmerer, JH Oliver, Columbus area office, OSHA; D Selchar, E Tyler, Ohio State Div of Safety and Hygiene; G Shadle, MD, TJ Halpin, MD, State Epidemiologist, Ohio State Dept of Health; M Gohar, Ohio State Arson Laboratory; and Div of Technical Services NIOSH, CDC.)

Editorial Note

Toxic gases can accumulate where organic substances have the opportunity to decay in a confined space. Hydrogen sulfide (H₂S), the most powerful of these gases, can evolve whenever the decaying organic materials contain sulfur.

DEATHS AT A RENDERING PLANT — Continued

Deaths from such exposure have been reported among gypsum, sulfur, and lead miners, drillers, and refiners of high-sulfur petroleum; sewer cleaners; and, as apparently happened here, among tanners and animal rendering plant workers (2). Testing for a "rotten egg" smell is not sufficient safeguard against such exposure, as H_2S can rapidly induce olfactory nerve paralysis. Adequate ventilation should be provided, but if ventilation is not possible, the space to be entered should be vented, and proper air sampling undertaken before entry. If this cannot be done, the entering worker should be provided with an air-supplied respirator and a safety harness and line to make rapid removal possible.

In addition, another person similarly equipped should stand by outside the confined space.

References

1. Imhoff K, Fair GM: Sewage Treatment. New York, John Wiley & Sons, Inc., 1947
2. Hamilton A, Hardy HL: Industrial Toxicology, 3rd ed., Acton, Massachusetts, Publishing Sciences Group Inc., 1973, p 229

Erratum, Vol. 24, No. 50, p 421

In Table II, Notifiable Diseases of Low Frequency, under Trichinosis, delete N.S. 2, and insert N.J. 2.

The Morbidity and Mortality Weekly Report, circulation 49,000, is published by the Center for Disease Control, Atlanta, Ga.

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

David J. Sencer, M.D.
Philip S. Brachman, M.D.
Michael B. Gregg, M.D.
Anne D. Mather, M.A.

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 cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials.

Send reports to:

Center for Disease Control
Attn.: Editor, Morbidity and Mortality Weekly Report
Atlanta, Georgia 30333

Send mailing list additions, deletions, and address changes to:

Center for Disease Control
Attn.: Distribution Services, GSO, 1-SB-36
Atlanta, Georgia 30333

When requesting changes, be sure to give your former address, including zip code and mailing list code number, or send an old address label.

DHEW Publication No. (CDC) 76-8017

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

OFFICIAL BUSINESS

FIRST CLASS



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