CENTER FOR DISEASE CONTROL

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MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Epidemiologic Notes and Reports

Lead Poisoning — Tennessee

In November 1975, symptoms and signs of lead toxicity were seen in workers in a secondary lead smelter in Memphis, Tennessee. Evidence of excessive lead absorption was also found in 50 of 102 workers' children, the parent's contaminated clothing apparently being the source of exposure. Seven children required hospitalization and chelation therapy. In January 1976, the plant was temporarily closed and efforts begun to reduce exposure to workers and their families.

Fifty-three (68%) of 78 workers tested had blood lead levels ≥60μg/100ml, the range considered by the National Institute for Occupational Safety and Health (NIOSH) to represent unacceptable lead absorption posing a risk to health (*1*). Thirty workers (36%) had 2 or more symptoms of lead poisoning, including abdominal pain, gastrointestinal dysfunction, muscular weakness, tremor, anorexia, joint pains, and fatigue. Peripheral neuropathy, indicated by weakness of wrist extensors, was seen in 10 workers. Anemia, defined as a hemoglobin level below 14gm/100ml, was seen in 11 workers. Anemic workers had significantly higher blood lead and erythrocyte protoporphyrin (EP) levels than nonanemic workers, thus identifying the anemia as lead-related (*2*). Elevations in blood urea nitrogen (BUN) above 20mg/100ml were seen in 6 employees (range, 22-40mg/100ml).

Arsenic levels in urine were elevated (≥100μg/liter when corrected to a specific gravity of 1.024) in 10 of 72 workers. Highest levels were seen in workers in the casting area where arsenic is added to molten lead

Fifty of 102 (49%) smelter workers' children had lead levels ≥30μg/100ml.* Seven of these 50 were hospitalized for chelation therapy because of lead levels ≥80μg/100ml and/or EP levels ≥190μg/100ml. Two infant children of smelter employees, both 4-month-old boys, had blood lead levels of 50 and 52μg/100ml, with EP values of 92 and 185μg/100ml, respectively.

This frequency of elevated blood lead levels differs strikingly from levels in children elsewhere in the Memphis area, as determined by the Memphis-Shelby County Health Department's Childhood Lead Screening Program. In the census tract adjacent to the smelter, 13 (6%) of 228 children 1-5 years old had blood lead levels ≥30μg/100ml. In another socioeconomically similar industrial area of Memphis having no lead production facility, 38 (12%) of 307 children had lead levels ≥30μg/100ml.

Reported by G Lovejoy, MD, TA Taylor, Memphis-Shelby County Health Dept; M Frank, RH Hutcheson, Jr, MD, State Epidemiologist, Div of Communicable Disease Control, and R Wolle, Occupational and Radiological Div, Tennessee Dept of Public Health; Div of Technical Services and Div of Surveillance, Hazard Evaluation and Field Studies, NIOSH; Field Services Div, and Cancer and Birth Defects Div, Bur of Epidemiology, CDC.

Editorial Note: Members of workers' families associated with industries other than those dealing with lead have been known to become ill following exposure to toxic materials transported from factory to home on work clothing. Asbestosis (*4*), berylliosis (*5*), and chloracne (*6*) are examples of other occupational diseases transmitted in this fashion.

Such reports emphasize the importance of improved work practices and engineering controls not only in safeguarding worker health, but also in shielding families of workers from contact with toxic industrial materials.

*A lead level ≥30μg/100ml in children is indicative of excessive absorption; a lead level ≥80μg/100ml or an EP level ≥190μg/100ml blood represents excessive absorption which necessitates immediate medical attention (*3*).

References

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6. Jensen NE, Sneddon IB, Walter AE: Chloracne: Three cases. Proc R Soc Med 65:687-688, 1972

Current Trends

Zoster Immune Globulin Available

Zoster Immune Globulin (ZIG), prepared from the plasma of healthy donors convalescing from herpes zoster, is again available for release. ZIG is an investigational drug (IND) and is only released when patients meet 5 criteria (Table 1).

A doctor who desires ZIG for his patient must contact one of the ZIG Consultants – physicians located in different areas of the country cooperating with CDC on ZIG distribution – or the immunization division, CDC. If the patient meets the established criteria, and the physician and patient agree to comply with the conditions of the IND protocol, ZIG is released.

ZIG is currently in short supply and donors of Zoster Immune Plasma are needed. Anyone with knowledge of potential donors should contact:

Center for Disease Control
Attention: Dr. Robert Ellis
Building 1, Room B-237
Atlanta, Georgia 30333
(404) 633-3311, ext 3356

TABLE 1. Five Criteria Necessary for Release of Zoster Immune Globulin (ZIG) for the Prophylaxis of Varicella

I.	**One of the following underlying illnesses or conditions**
	A. Leukemia or lymphoma
	B. Congenital or acquired immunodeficiency
	C. Under immunosuppressive medication
	D. Newly born of mother with varicella
II.	**One of the following types of exposure to varicella or zoster patient**
	A. Household contact
	B. Playmate contact (>1 hour play indoors)
	C. Hospital contact (in same bedroom or adjacent beds in a large ward)
	D. School contact (same carpool or adjacent desks in classroom)
	E. Newborn contact (newborn whose mother contacted varicella within the 4 days before delivery)
III.	**Negative or unknown prior disease history**
IV.	**Age of less than 15 years**
V.	**Treatment must be initiated within 72 hours of exposure**

Reported by Immunization Div, Bur of State Services and Immunobiologics, Biological Products Div, Bur of Laboratories, CDC.

Table I. Summary—Cases of Specified Notifiable Diseases: United States

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

DISEASE	11th WEEK ENDING		MEDIAN 1971–1975	CUMULATIVE, FIRST 11 WEEKS		MEDIAN 1971–1975
	March 20, 1976	March 15, 1975		March 20, 1976	March 15, 1975	
Aseptic meningitis	34	35	33	407	380	380
Brucellosis	3	2	2	50	29	20
Chickenpox	6,293	4,522	---	58,964	43,231	---
Diphtheria	3	6	6	79	93	47
Encephalitis: Primary	19	8	15	165	130	174
Encephalitis: Post-Infectious	6	3	6	48	40	44
Hepatitis, Viral: Type B	295	218	176	2,933	2,230	1,814
Hepatitis, Viral: Type A	652	761	1,030	7,578	7,674	10,610
Hepatitis, Viral: Type unspecified	165	170		1,876	1,620	
Malaria	9	10	10	64	61	61
Measles (rubeola)	1,543	760	782	8,225	4,606	7,272
Meningococcal infections, total	48	43	43	422	393	393
Civilian	48	42	42	419	382	378
Military	–	1	2	3	11	12
Mumps	1,300	1,935	2,249	13,862	16,198	20,722
Pertussis	13	13	---	240	249	---
Rubella (German measles)	654	470	1,088	3,278	3,141	6,774
Tetanus	1	1	2	7	12	12
Tuberculosis	705	660	---	6,595	5,996	---
Tularemia	1	–	1	25	9	22
Typhoid fever	5	5	5	71	48	54
Typhus, tick-borne (Rky. Mt. spotted fever)	–	1	1	5	11	11
Venereal Diseases:						
Gonorrhea: Civilian	16,857	18,901	---	204,485	194,684	---
Gonorrhea: Military	477	434	---	6,311	6,425	---
Syphilis, primary and secondary: Civilian	477	598	---	5,609	5,515	---
Syphilis, primary and secondary: Military	4	3	---	78	71	---
Rabies in animals	66	38	70	409	403	637

Table II. Notifiable Diseases of Low Frequency: United States

	CUM.		CUM.
Anthrax:	2	Poliomyelitis, total:	2
Botulism:	4	Paralytic:	2
Congenital rubella syndrome: Va. 1	6	Psittacosis:	20
Leprosy: Ariz. 1, Calif. 2, Hawaii 1	25	Rabies in man:	–
Leptospirosis:	9	Trichinosis: Conn. 1	41
Plague:	1	Typhus, murine:	3

Table III
Cases of Specified Notifiable Diseases: United States
Weeks Ending March 20, 1976 and March 15, 1975 — 11th Week

AREA REPORTING	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKENPOX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS, VIRAL			MALARIA	
						Primary: Arthropod-borne and Unspecified		Post Infectious	Type B	Type A	Type Unspecified		
	1976	1976	1976	1976	CUM. 1976	1976	1975	1976	1976	1976	1976	1976	CUM. 1976
UNITED STATES	34	3	6,293	3	79	19	8	6	295	652	165	9	64
NEW ENGLAND	1	–	440	–	–	1	–	–	6	19	4	–	4
Maine	–	–	9	–	–	–	–	–	–	–	–	–	–
New Hampshire*	–	–	7	–	–	–	–	–	–	–	–	–	–
Vermont	–	–	10	–	–	–	–	–	–	1	–	–	–
Massachusetts	–	–	193	–	–	–	–	–	1	4	3	–	3
Rhode Island	–	–	39	–	–	–	–	–	–	5	–	–	–
Connecticut	1	–	182	–	–	1	–	–	5	9	1	–	1
MIDDLE ATLANTIC	1	–	453	–	–	1	–	–	80	86	29	3	15
Upstate New York	–	–	137	–	–	1	–	–	–	18	–	–	3
New York City	–	–	110	–	–	–	–	–	16	22	–	1	9
New Jersey	–	–	NN	–	–	–	–	–	53	39	28	–	–
Pennsylvania*	1	–	206	–	–	–	–	–	11	7	1	2	3
EAST NORTH CENTRAL	3	–	2,774	–	–	2	1	4	53	123	13	–	2
Ohio*	1	–	380	–	–	1	–	–	12	33	–	–	1
Indiana	–	–	171	–	–	–	–	–	1	9	–	–	–
Illinois	–	–	590	–	–	1	–	3	18	43	8	–	–
Michigan	1	–	950	–	–	–	1	1	14	25	5	–	1
Wisconsin*	1	–	683	–	–	–	–	–	8	13	–	–	–
WEST NORTH CENTRAL	1	–	866	–	3	4	1	–	17	79	12	–	–
Minnesota	–	–	3	–	–	3	1	–	7	12	–	–	–
Iowa	–	–	569	–	–	–	–	–	2	2	–	–	–
Missouri *	1	–	136	–	1	1	–	–	2	28	7	–	–
North Dakota	–	–	2	–	–	–	–	–	–	3	–	–	–
South Dakota	–	–	–	–	2	–	–	–	–	7	–	–	–
Nebraska	–	–	49	–	–	–	–	–	–	4	1	–	–
Kansas	–	–	107	–	–	–	–	–	6	23	4	–	–
SOUTH ATLANTIC	3	–	683	–	–	2	3	–	26	93	19	1	9
Delaware	–	–	7	–	–	–	–	–	–	3	–	–	–
Maryland	–	–	20	–	–	–	–	–	4	4	4	–	–
District of Columbia	–	–	20	–	–	–	–	–	–	–	–	–	2
Virginia	–	–	48	–	–	1	1	–	5	3	3	–	3
West Virginia	1	–	326	–	–	–	–	–	–	7	–	–	–
North Carolina	1	–	NN	–	–	–	–	–	8	8	2	–	1
South Carolina	–	–	44	–	–	–	1	–	2	6	6	–	–
Georgia	–	–	–	–	–	–	–	–	–	23	–	–	–
Florida	1	–	218	–	–	1	1	–	7	39	4	1	3
EAST SOUTH CENTRAL	4	–	89	–	–	1	–	1	16	74	6	–	1
Kentucky	2	–	80	–	–	1	–	–	6	43	3	–	–
Tennessee	2	–	NN	–	–	–	–	–	9	24	2	–	–
Alabama	–	–	5	–	–	–	–	1	1	2	1	–	–
Mississippi	–	–	4	–	–	–	–	–	–	5	–	–	1
WEST SOUTH CENTRAL	4	2	381	–	–	2	–	–	27	48	49	–	2
Arkansas	–	1	36	–	–	–	–	–	1	5	6	–	–
Louisiana	–	–	NN	–	–	–	–	–	9	10	3	–	–
Oklahoma	–	–	110	–	–	1	–	–	4	11	5	–	–
Texas	4	1	235	–	–	1	–	–	13	22	35	–	2
MOUNTAIN	1	1	232	–	3	–	–	1	7	29	11	–	1
Montana	–	–	33	–	–	–	–	–	–	–	2	–	–
Idaho *	–	–	16	–	–	–	–	–	–	–	1	–	–
Wyoming	–	–	–	–	–	–	–	–	–	–	–	–	–
Colorado	–	1	129	–	3	–	–	–	6	5	–	–	–
New Mexico*	–	–	1	–	–	–	–	–	1	2	4	–	–
Arizona*	–	–	–	–	–	–	–	–	–	9	–	–	–
Utah	1	–	53	–	–	–	–	1	–	13	4	–	–
Nevada*	–	–	–	–	–	–	–	–	–	–	–	–	1
PACIFIC	16	–	375	3	73	6	3	–	63	101	22	5	30
Washington	–	–	344	3	72	4	–	–	4	8	2	–	1
Oregon	–	–	3	–	–	1	–	–	3	10	2	–	2
California*	16	–	–	–	–	–	3	–	50	81	18	5	27
Alaska	–	–	9	–	1	1	–	–	–	–	–	–	–
Hawaii	–	–	19	–	–	–	–	–	6	2	–	–	–
Guam *	–	–	–	–	–	–	–	–	–	–	–	–	–
Puerto Rico	–	–	19	–	–	–	–	–	1	15	–	–	1
Virgin Islands	–	–	–	–	–	–	–	–	–	–	–	–	–

NN: Not Notifiable
*Delayed Reports: Aseptic Meng.: Guam 1; Brucellosis: Idaho 1 (1975); Chickenpox: Calif. 285, Guam 7; Enceph.: Pa. delete 1, (1975), delete 1 (1976), Wisc. 2; Hep. B: N. Hamp. 1, Pa. 3 (1975); Hep. A: Ohio delete 1, Mo. delete 2, N. Mex. 1, Ariz. 13, Nev. 3, Guam 3; Hep. Unsp: Pa. 2 (1975), Mo. delete 1, Ariz. 2

Table III-Continued
Cases of Specified Notifiable Diseases: United States
Weeks Ending March 20, 1976 and March 15, 1975 – 11th Week

REPORTING AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1976	CUMULATIVE		1976	CUMULATIVE		1976	CUM. 1976	1976	1976	CUM. 1976	CUM. 1976
		1976	1975		1976	1975						
UNITED STATES	1,543	8,225	4,606	48	422	393	1,300	13,862	13	654	3,278	7
NEW ENGLAND	4	106	43	3	23	24	30	570	–	12	64	–
Maine	–	3	4	–	–	4	–	38	–	–	1	–
New Hampshire	–	–	15	–	2	1	–	20	–	–	7	–
Vermont	–	–	–	–	–	–	–	2	–	–	–	–
Massachusetts	–	2	12	1	6	6	3	92	–	9	28	–
Rhode Island	–	12	1	1	4	2	9	213	–	–	3	–
Connecticut	4	89	11	1	11	11	18	205	–	3	25	–
MIDDLE ATLANTIC	501	1,603	261	4	39	32	81	963	3	43	491	–
Upstate New York	80	567	62	1	10	11	16	163	2	4	44	–
New York City	13	63	36	1	11	6	48	404	1	4	28	–
New Jersey	19	97	116	2	8	5	–	218	–	28	380	–
Pennsylvania	389	876	47	–	10	10	17	178	–	7	39	–
EAST NORTH CENTRAL	542	3,183	1,787	6	54	52	545	5,641	7	177	1,082	–
Ohio	–	4	30	1	23	8	72	817	6	14	77	–
Indiana	107	671	114	–	3	1	42	496	–	13	157	–
Illinois	133	300	379	1	5	10	108	706	1	77	265	–
Michigan	154	1,025	889	4	19	27	183	2,256	–	54	432	–
Wisconsin	148	1,183	375	–	4	6	140	1,366	–	19	151	–
WEST NORTH CENTRAL	12	159	1,260	1	39	28	123	1,575	–	1	128	1
Minnesota	8	37	–	–	5	5	17	352	–	–	6	–
Iowa	–	8	131	1	7	4	74	569	–	–	9	–
Missouri *	–	4	55	–	7	15	9	121	–	–	14	–
North Dakota	–	1	229	–	–	–	–	77	–	–	1	1
South Dakota	–	–	204	–	1	–	–	1	–	–	1	–
Nebraska *	1	36	180	–	2	1	3	46	–	–	1	–
Kansas	3	73	461	–	17	3	20	409	–	1	96	–
SOUTH ATLANTIC	43	616	55	8	88	77	122	1,188	–	310	768	3
Delaware	12	71	–	–	–	1	–	12	–	–	4	–
Maryland	13	272	–	–	6	4	16	305	–	–	–	1
District of Columbia	–	1	–	–	–	3	22	58	–	–	45	–
Virginia	5	12	7	3	10	8	2	119	–	3	48	–
West Virginia	6	77	36	–	3	2	24	293	–	9	164	–
North Carolina *	–	–	–	1	17	12	47	257	–	–	9	–
South Carolina	–	–	–	2	12	8	4	19	–	292	477	–
Georgia	–	–	–	1	6	7	–	–	–	–	–	–
Florida	7	183	12	1	34	32	7	125	–	6	21	2
EAST SOUTH CENTRAL	61	231	42	5	29	53	140	1,063	1	5	62	1
Kentucky	61	221	32	1	3	19	107	494	1	1	16	1
Tennessee	–	5	7	1	13	18	30	487	–	4	46	–
Alabama	–	–	–	2	9	10	3	65	–	–	–	–
Mississippi	–	5	3	1	4	6	–	17	–	–	–	–
WEST SOUTH CENTRAL	7	281	70	9	71	73	136	909	–	9	162	1
Arkansas	–	–	–	–	2	4	–	12	–	–	36	–
Louisiana	–	5	–	3	10	14	–	6	–	–	31	1
Oklahoma	–	185	12	–	11	7	48	288	–	2	30	–
Texas	7	91	58	6	48	48	88	603	–	7	65	–
MOUNTAIN	324	1,620	321	–	19	10	32	517	2	56	163	–
Montana	3	49	–	–	2	2	–	7	–	11	49	–
Idaho	113	650	3	–	1	–	4	255	–	3	17	–
Wyoming	–	–	–	–	–	–	–	–	–	–	2	–
Colorado	3	34	313	–	8	5	3	86	–	2	6	–
New Mexico	–	3	–	–	1	2	4	72	2	–	5	–
Arizona	34	52	4	–	3	1	–	–	–	–	–	–
Utah	163	819	–	–	4	–	17	85	–	37	79	–
Nevada *	8	13	1	–	–	–	4	12	–	3	5	–
PACIFIC	49	426	767	12	60	44	91	1,436	–	41	358	1
Washington	–	34	29	1	14	6	34	601	–	6	65	–
Oregon	–	5	50	–	5	–	15	148	–	7	34	1
California	49	385	688	9	37	38	38	666	–	28	254	–
Alaska	–	–	–	2	3	–	3	14	–	–	–	–
Hawaii	–	2	–	–	1	–	1	7	–	–	5	–
Guam *	–	4	4	–	1	–	–	2	–	–	–	–
Puerto Rico	12	45	120	–	1	1	29	244	–	–	4	1
Virgin Islands	–	–	2	–	–	–	–	18	–	–	1	–

*Delayed Reports: TB: Mo. 6 (1975), delete 2 (1976); N. Car. delete 1; GC: Nebr. delete 8, Nev. 24, Guam 8; Syphilis: Nev. 1.

Table III-Continued
Cases of Specified Notifiable Diseases: United States
Weeks Ending March 20, 1976 and March 15, 1975 — 11th Week

REPORTING AREA	TUBERCULOSIS		TULAREMIA	TYPHOID FEVER		TYPHUS-FEVER TICK-BORNE (RMSF)		VENEREAL DISEASES (Civilian Cases Only)						RABIES IN ANIMALS
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1976	CUM. 1976	CUM. 1976	1976	CUM. 1976	1976	CUM. 1976	1976	CUMULATIVE 1976	CUMULATIVE 1975	1976	CUMULATIVE 1976	CUMULATIVE 1975	CUM. 1976
UNITED STATES	705	6,595	25	5	71	–	5	16,857	204,485	194,684	477	5,609	5,515	409
NEW ENGLAND	20	251	–	1	11	–	–	532	5,755	5,310	23	159	195	8
Maine	2	16	–	–	–	–	–	41	498	324	–	6	4	8
New Hampshire	–	10	–	–	2	–	–	12	125	160	1	1	8	–
Vermont*	–	9	–	–	–	–	–	76	184	99	–	2	2	–
Massachusetts	12	153	–	1	8	–	–	236	2,754	2,702	19	110	131	–
Rhode Island	1	18	–	–	–	–	–	34	367	404	–	8	2	–
Connecticut	5	45	–	–	1	–	–	133	1,827	1,621	3	32	48	–
MIDDLE ATLANTIC	200	1,159	–	1	14	–	–	2,106	21,232	23,795	88	962	1,073	2
Upstate New York	13	156	–	–	2	–	–	257	2,915	4,537	3	53	120	1
New York City	117	455	–	–	8	–	–	900	9,027	10,458	58	646	619	–
New Jersey	32	229	–	–	2	–	–	405	3,638	2,949	12	134	158	1
Pennsylvania*	38	319	–	1	2	–	–	544	5,652	5,851	15	129	176	–
EAST NORTH CENTRAL	91	790	–	–	1	–	–	2,458	33,735	32,834	87	531	440	17
Ohio	14	150	–	–	1	–	–	509	8,716	9,090	16	122	94	–
Indiana	8	130	–	–	–	–	–	152	3,027	2,693	2	27	29	2
Illinois	22	203	–	–	–	–	–	824	12,070	11,207	60	294	217	3
Michigan	31	264	–	–	–	–	–	682	6,868	6,653	7	69	75	–
Wisconsin*	16	43	–	–	–	–	–	291	3,054	3,191	2	19	25	12
WEST NORTH CENTRAL	20	275	9	–	2	–	–	667	10,116	9,458	10	173	123	76
Minnesota	9	52	3	–	1	–	–	154	1,945	1,964	2	26	13	23
Iowa	2	25	–	–	–	–	–	98	1,351	1,053	3	82	5	18
Missouri*	6	131	5	–	1	–	–	178	3,937	3,532	3	46	73	10
North Dakota	–	9	–	–	–	–	–	17	149	164	–	–	3	17
South Dakota	–	17	–	–	–	–	–	41	321	405	–	2	2	1
Nebraska	1	12	–	–	–	–	–	89	848	833	2	7	3	–
Kansas	2	29	1	–	–	–	–	90	1,565	1,507	–	10	24	7
SOUTH ATLANTIC	131	1,434	3	2	11	–	2	4,119	48,536	48,263	124	1,651	1,723	71
Delaware	1	13	–	–	–	–	–	22	693	669	–	14	17	–
Maryland	13	202	1	–	–	–	–	749	6,863	5,421	12	139	129	–
District of Columbia	7	58	–	–	–	–	–	161	2,896	3,216	9	150	145	–
Virginia	18	254	–	1	2	–	–	407	5,478	4,887	10	146	139	14
West Virginia	4	72	–	–	–	–	–	39	626	588	2	11	4	4
North Carolina	29	268	2	1	1	–	1	475	7,258	7,305	44	319	225	–
South Carolina	14	90	–	–	–	–	–	292	4,442	4,569	9	90	140	2
Georgia	27	189	–	–	2	–	1	1,013	9,261	8,522	8	204	248	41
Florida*	18	288	–	–	6	–	–	961	11,019	13,086	30	578	676	10
EAST SOUTH CENTRAL	81	619	5	–	3	–	1	1,559	18,253	15,591	18	244	244	32
Kentucky	18	130	1	–	2	–	–	182	2,366	2,003	2	39	36	23
Tennessee	37	190	4	–	1	–	–	504	7,006	6,385	9	99	92	6
Alabama	17	186	–	–	–	–	1	552	5,135	4,124	4	45	67	3
Mississippi*	9	113	–	–	–	–	–	321	3,746	3,079	3	61	49	–
WEST SOUTH CENTRAL	62	768	2	–	2	–	2	2,221	29,015	24,622	50	622	508	84
Arkansas	12	128	1	–	–	–	1	298	2,583	2,282	2	23	11	22
Louisiana	14	123	–	–	–	–	–	256	4,073	4,644	3	127	109	–
Oklahoma*	6	69	–	–	–	–	1	188	2,649	2,180	2	33	28	23
Texas	30	448	1	–	2	–	–	1,479	19,710	15,516	43	439	360	39
MOUNTAIN	14	166	1	–	5	–	–	723	8,185	7,359	13	146	139	26
Montana	–	10	1	–	2	–	–	37	428	442	–	2	3	20
Idaho	–	4	–	–	–	–	–	43	412	379	3	11	2	–
Wyoming	–	3	–	–	–	–	–	2	170	177	–	4	1	1
Colorado	3	27	–	–	–	–	–	218	2,145	2,032	5	45	31	–
New Mexico*	1	28	–	–	1	–	–	105	1,638	1,196	–	38	37	–
Arizona*	9	82	–	–	2	–	–	222	2,290	1,945	4	34	49	5
Utah*	–	4	–	–	–	–	–	49	488	418	–	1	1	–
Nevada	1	8	–	–	–	–	–	47	614	770	1	11	15	–
PACIFIC	86	1,133	5	1	22	–	–	2,472	29,658	27,452	64	1,121	1,070	93
Washington	11	126	2	1	2	–	–	250	2,538	2,520	–	27	56	–
Oregon	6	43	1	–	–	–	–	197	2,225	2,305	2	35	26	–
California	64	834	2	–	20	–	–	1,911	23,397	21,429	62	1,039	977	69
Alaska	–	15	–	–	–	–	–	90	897	715	–	1	–	24
Hawaii	5	115	–	–	–	–	–	24	601	483	–	19	11	–
Guam	–	8	–	–	–	–	–	–	66	98	–	–	1	–
Puerto Rico	12	82	–	–	–	–	–	72	582	662	13	119	142	7
Virgin Islands	–	–	–	–	–	–	–	3	57	41	–	24	9	–

*Delayed Reports: Measles: Wisc. 66, Fla. delete 14, Ariz. 6, Utah 36; Mening. Inf.: Vt. 1, Pa. delete 1 (1975) delete 1 (1976), Mo. 1, Miss. delete 1, Okla. delete 4; Mumps: M. Mex. 37; Pertussis: Vt. 1; Rubella: Okla. 4

Table IV
Deaths in 121 United States Cities*
Week Ending March 20, 1976 – 11th Week

REPORTING AREA	ALL CAUSES					Pneumonia and Influenza
	ALL AGES	65 Years and Over	45–64 Years	25–44 Years	Under 1 Year	ALL AGES
NEW ENGLAND	713	460	185	37	15	66
Boston, Mass.	201	112	59	13	5	18
Bridgeport, Conn.	34	27	5	1	1	3
Cambridge, Mass.	30	19	9	1	1	8
Fall River, Mass.	38	31	6	1	–	3
Hartford, Conn.	50	24	17	5	3	3
Lowell, Mass.	20	14	5	1	–	3
Lynn, Mass.	21	17	2	1	–	2
New Bedford, Mass.	27	20	6	1	–	4
New Haven, Conn.	51	36	11	3	–	2
Providence, R.I.	78	48	20	6	3	6
Somerville, Mass.	7	7	–	–	–	–
Springfield, Mass.	52	36	13	2	1	7
Waterbury, Conn.	36	24	11	1	–	2
Worcester, Mass.	68	45	21	1	1	5
MIDDLE ATLANTIC	3,192	2,026	801	192	88	195
Albany, N. Y.	54	39	9	–	2	2
Allentown, Pa.	28	21	4	2	1	8
Buffalo, N. Y.	138	93	31	5	3	17
Camden, N. J.	31	20	8	1	2	3
Elizabeth, N. J.	45	28	14	2	1	2
Erie, Pa.	37	28	6	3	–	2
Jersey City, N. J.	53	35	17	–	–	1
Newark, N. J. †	71	32	19	13	4	9
New York City, N. Y.	1,506	942	379	98	40	82
Paterson, N. J.	39	21	11	4	3	2
Philadelphia, Pa.	502	302	135	35	15	5
Pittsburgh, Pa.	202	132	50	12	7	22
Reading, Pa.	53	37	12	2	1	–
Rochester, N. Y.	143	104	30	5	2	21
Schenectady, N. Y.	30	17	11	1	1	–
Scranton, Pa.	55	34	19	1	1	4
Syracuse, N. Y.	95	61	19	7	5	6
Trenton, N. J.	53	40	11	1	–	1
Utica, N. Y.	33	24	9	–	–	3
Yonkers, N. Y.	24	16	7	–	–	5
EAST NORTH CENTRAL	2,684	1,668	688	173	83	164
Akron, Ohio	64	42	16	3	3	–
Canton, Ohio	43	36	5	1	1	9
Chicago, Ill.	658	370	177	71	18	26
Cincinnati, Ohio	174	107	44	14	3	6
Cleveland, Ohio	208	120	59	17	4	9
Columbus, Ohio	139	82	48	2	5	8
Dayton, Ohio	109	75	22	6	4	4
Detroit, Mich.	401	246	105	27	10	32
Evansville, Ind.	34	19	10	2	1	2
Fort Wayne, Ind.	64	43	14	4	1	4
Gary, Ind.	18	10	7	–	–	1
Grand Rapids, Mich.	61	43	14	1	2	7
Indianapolis, Ind.	154	92	40	8	11	7
Madison, Wis.	55	39	12	2	1	11
Milwaukee, Wis.	177	123	39	5	7	14
Peoria, Ill.	40	24	9	1	5	3
Rockford, Ill.	47	31	9	3	4	10
South Bend, Ind.	42	24	14	2	1	3
Toledo, Ohio	120	87	28	2	1	8
Youngstown, Ohio	76	55	16	2	1	–
WEST NORTH CENTRAL	956	639	197	59	31	81
Des Moines, Iowa	71	55	11	2	3	7
Duluth, Minn.	31	23	6	2	–	6
Kansas City, Kans.	43	24	10	7	1	2
Kansas City, Mo.	154	108	31	7	3	14
Lincoln, Nebr.	43	32	4	4	2	7
Minneapolis, Minn.	138	91	28	10	5	8
Omaha, Nebr.	106	70	21	7	5	9
St. Louis, Mo.	237	142	60	16	5	15
St. Paul, Minn.	69	50	14	2	3	4
Wichita, Kans.	64	44	12	2	4	9
SOUTH ATLANTIC	1,327	751	373	108	48	92
Atlanta, Ga.	143	79	41	19	–	3
Baltimore, Md.	251	139	72	25	4	14
Charlotte, N. C.	48	25	11	7	2	3
Jacksonville, Fla.	66	35	13	10	4	3
Miami, Fla.	143	80	52	2	4	7
Norfolk, Va.	68	34	21	2	5	7
Richmond, Va.	91	52	21	8	5	12
Savannah, Ga.	38	18	16	1	3	2
St. Petersburg, Fla.	74	69	4	1	–	12
Tampa, Fla.	88	53	24	7	2	13
Washington, D. C.	278	148	84	22	18	14
Wilmington, Del.	39	19	14	4	1	2
EAST SOUTH CENTRAL	738	436	188	50	22	51
Birmingham, Ala.	128	66	35	14	3	2
Chattanooga, Tenn.	50	26	15	7	–	2
Knoxville, Tenn.	47	31	10	–	3	1
Louisville, Ky.	109	65	30	5	3	11
Memphis, Tenn.	169	108	44	11	1	12
Mobile, Ala.	68	34	16	5	4	3
Montgomery, Ala.	46	31	10	1	2	8
Nashville, Tenn.	121	75	28	7	6	12
WEST SOUTH CENTRAL	1,442	858	386	78	55	110
Austin, Tex.	44	27	13	1	–	6
Baton Rouge, La.	59	37	16	1	1	5
Corpus Christi, Tex.	41	27	12	–	2	3
Dallas, Tex.	197	119	53	11	5	13
El Paso, Tex.	66	41	10	2	10	10
Fort Worth, Tex.	116	77	26	6	6	8
Houston, Tex.	342	173	112	22	10	17
Little Rock, Ark.	59	33	18	2	3	4
New Orleans, La.	170	105	50	5	6	7
San Antonio, Tex.	200	127	41	16	9	17
Shreveport, La.	53	29	16	5	2	6
Tulsa, Okla.	95	63	19	7	1	14
MOUNTAIN	706	455	156	42	22	87
Albuquerque, N. Mex.	74	44	12	11	1	14
Colorado Springs, Colo.	44	31	7	3	1	9
Denver, Colo.	166	99	44	14	6	27
Las Vegas, Nev.	24	7	10	2	3	1
Ogden, Utah	31	20	7	3	–	6
Phoenix, Ariz.	147	101	35	1	7	8
Pueblo, Colo.	37	31	3	2	–	12
Salt Lake City, Utah	86	59	19	2	1	7
Tucson, Ariz.	97	63	19	4	3	3
PACIFIC	1,846	1,252	413	94	45	162
Berkeley, Calif.	20	18	2	–	–	1
Fresno, Calif.	49	34	10	4	–	4
Glendale, Calif.	28	21	6	1	–	1
Honolulu, Hawaii	47	30	10	–	5	–
Long Beach, Calif.	116	76	26	9	4	7
Los Angeles, Calif.	555	378	112	42	14	46
Oakland, Calif.	89	49	26	7	1	5
Pasadena, Calif.	35	29	4	–	2	2
Portland, Oreg.	158	117	32	2	2	12
Sacramento, Calif.	85	56	25	3	–	6
San Diego, Calif.	121	73	32	6	6	2
San Francisco, Calif.	185	116	45	13	3	9
San Jose, Calif.	54	41	10	1	1	8
Seattle, Wash.	191	140	40	5	2	32
Spokane, Wash.	71	47	19	1	4	19
Tacoma, Wash.	42	27	14	–	1	8
TOTAL	13,604	8,545	3,387	833	409	1,008
Expected Number	12,718	7,781	3,314	786	388	517

*By place of occurrence and week of filing certificate. Excludes fetal deaths.
†Delayed Report for Week Ending 3/13/76 (For NYC)

The Morbidity and Mortality Weekly Report, circulation 52,000, is published by the Center for Disease Control, Atlanta, Georgia. The data in this report are provisional, based on weekly telegraphs to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Send reports to: Center for Disease Control, Attn.: Editor, Morbidity and Mortality Weekly Report, Atlanta, Georgia 30333.

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Epidemiologic Notes and Reports

Follow-up on Lassa Fever — Washington, D.C.

The patient in Washington, D.C. with Lassa fever (MMWR 25 [8,9,10]) remains hospitalized and is experiencing vertigo and some visual problems. Neurologic studies are in progress.

One viral isolate was obtained from a urine specimen collected on March 3 (MMWR 25 [10]). Subsequent specimens have been negative for virus.

No secondary cases developed in the 392 contacts placed under surveillance. On March 22, surveillance was discontinued.

Reported by M Wolfe, MD, Washington, D. C.; VO Oner, MD, JR Pate, MD, Acting State Epidemiologist, District of Columbia Community Health and Hospital Admin; Virology Div, Bur of Laboratories, and Viral Diseases Div, Bur of Epidemiology, CDC.

International Notes

Smallpox Surveillance

Except for 4 cases of smallpox imported into Somalia, 2 in January and 2 in February, all cases of smallpox reported during the past 4½ months have occurred in Ethiopia. In Asia, the last known cases of smallpox occurred on October 16 in Bangladesh. Subsequently, thorough searches throughout Bangladesh, as well as in India, have failed to detect additional cases.

The global program of smallpox eradication has reached the point that progress is now monitored in terms of the number of "infected villages" in each area. A village is considered infected until 6 weeks have elapsed since onset of rash of the last case *and* until a special search is made to confirm that no further cases have occurred. As of March 12, there were 51 infected villages in Ethiopia.

All possible efforts are being made by the Ethiopian government and by WHO to eliminate the last remaining foci in Ethiopia at the earliest possible time. Progress is good but complicated by the unexpected discovery of long persistent outbreaks in the Blue Nile gorge of Begemdir and the persistence of infection among Ogaden desert nomads.

Reported by the World Health Organization in the Weekly Epidemiological Record *51(8,11):61-62,86, February 20 and March 12, 1976*

Current Trends

Results of Screening for Gonorrhea — United States, 3-Month Period Ending September 1975

In the 3-month period ending September 30, 1975, a total of 2,260,860 specimens were taken from women as a part of gonorrhea screening programs; 105,677 (4.7%) were found to be positive.

Table 1 reflects the results of such screening by the types of health care facilities securing the specimen. Although the positivity rates were highest (19.7%) in venereal disease clinics, 90% of all tests were performed in other settings. In these settings culture positivity rates in women ranged from 1.8% among private family planning groups to 5.7% for women in detention centers. Some 608,353 women were tested by private physicians and 12,801 (2.1%) were positive.

Provisional data indicate that an additional 2,306,488 women were tested at all types of facilities in October, November, and December 1975, or about 769,000 per month. For this period the overall positivity rate of cultures from all sources was 4.5%.

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

Results of Gonorrhea Culture Tests on Females — United States*

*July 1975–September 1975***

REPORTING SOURCE	NUMBER TESTED	NUMBER POSITIVE	PERCENT POSITIVE
Health Care Providers (Excluding VD Clinics)	2,039,283	62,034	3.0
Health Department Non-VD Clinic	468,044	15,687	3.4
Family Planning	329,693	10,905	3.3
Prenatal, Ob-Gyn	51,122	1,469	2.9
Cancer Detection	7,852	121	1.5
Combinations or Other	79,377	3,192	4.0
Public/Private Hospital—Outpatient	387,950	18,837	4.9
Family Planning	38,723	943	2.4
Prenatal, Ob-Gyn	86,888	2,862	3.3
Cancer Detection	2,472	50	2.0
Combinations or Other	259,867	14,982	5.8
Public/Private Hospital—Inpatient	17,641	423	2.4
Obstetric	1,809	49	2.7
Gynecologic	237	6	2.5
Combinations or Other	15,595	368	2.4
Community Health Centers	190,565	6,466	3.4
Family Planning	72,983	1,507	2.1
Prenatal, Ob-Gyn	11,217	261	2.3
Cancer Detection	2,755	23	0.8
Combinations or Other	103,610	4,675	4.5
Health Care Providers (Excluding VD Clinics—Con't.)			
Private Physicians	608,353	12,801	2.1
Private Family Planning Groups	231,467	4,081	1.8
Group Health Clinics	30,470	719	2.4
Student Health Centers	33,103	637	1.9
Manpower Training Agencies	7,162	242	3.4
Industrial Screening	1,332	32	2.4
Military/Dependents	27,041	613	2.3
Correctional or Detention Centers	11,472	658	5.7
Not Specified	24,683	838	3.4
Venereal Disease Clinics	221,577	43,643	19.7
TOTAL (All Clinics)	2,260,860	105,677	4.7

*Includes reports from Guam and Outlying Areas (January-March 1975, April-June 1975, and July-September 1975). **Excludes reports from Vermont and Iowa.

Source: Form CDC 9.124, HEW-CDC-BSS-VD Control Division, Evaluation and Statistical Services Section.

Influenza — United States

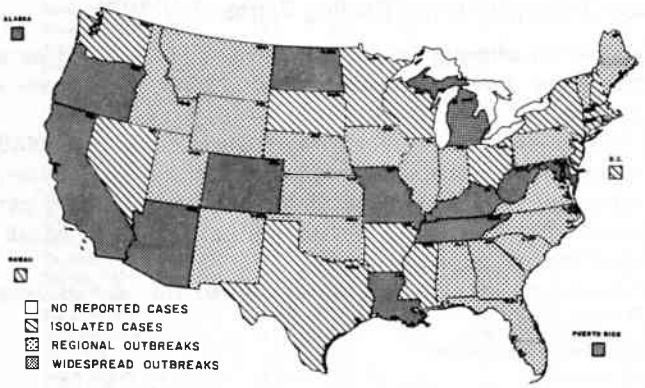
Influenza activity has continued to decline nationwide according to a CDC telephone survey conducted March 18. Thirteen states and Puerto Rico reported widespread outbreaks of influenza, 20 states reported regional outbreaks, and the remaining 17 states and the District of Columbia reported only isolated cases (Figure 1).

Pneumonia and influenza deaths in 121 cities decreased slightly but remained above epidemic threshold for the seventh consecutive week. The most significant declines were noted in the New England and Middle Atlantic regions, while the greatest increase was seen in the Pacific region (Figure 2).

A/Swine-like Influenza, Pennsylvania

As a result of the intensive investigation of the outbreak of A/swine-like influenza at Ft. Dix, New Jersey (MMWR 25[6]), 22 recruits who had antibodies to A/swine virus and a history of contact with swine were identified. Investigations of family members and close contacts of these recruits were undertaken by the respective state and local health departments. In Pennsylvania 4 of 11 household contacts ages 11-25 of 1 recruit were found to have hemagglutination inhibition (HI) titers to A/swine virus of ≥1:20, and none had a history of contact with swine.

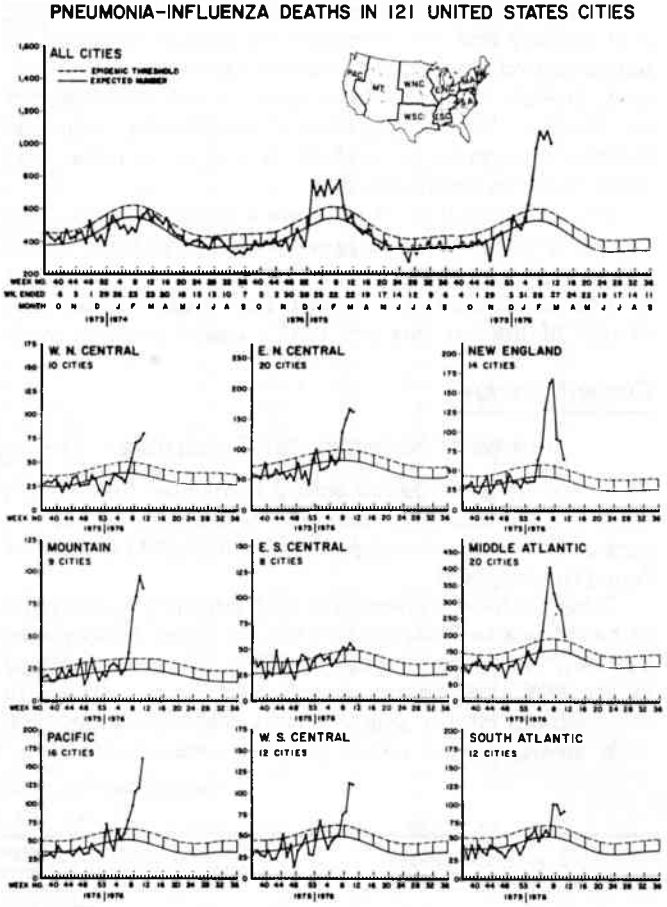
FIGURE 1. Reported influenza activity, March 18, 1976, CDC telephone survey



Further investigation of approximately 200 classmates and close contacts of these individuals and other community members did not indicate prevalence of antibodies to A/swine virus in excess of that expected. These results suggest that person-to-person spread of A/swine-like influenza occurred in the family of the recruit but not in the community.

Reported by WD Schrack, Jr, MD, State Epidemiologist, Pennsylvania Dept of Health; Venereal Disease Control Div, Bur of State Services, Field Services Div and Viral Diseases Div, Bur of Epidemiology and Virology Div, Bur of Laboratories.

FIGURE 2. Pneumonia-influenza deaths in 121 United States cities



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