

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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Epidemiologic Notes and Reports

Follow-up on Respiratory Disease — Pennsylvania

Pennsylvania Report: In experiments conducted by the Bureau of Laboratories of the Pennsylvania Department of Health, a bacterium-like organism has been isolated from lung suspensions of 1 of 5 fatal cases of Legionnaires' disease. The organism appears to be similar or identical to that found by the Center for Disease Control (MMWR 26[2,6], 1977). The lung suspensions were inoculated intraperitoneally into guinea pigs. From guinea pigs that died, the spleen was removed, ground in Bovarnick's sucrose potassium glutamate diluent, and inoculated into 7-day-old embryonated hens' eggs. Eggs inoculated with tissue of 1 animal died in 5 days. Yolk sacs harvested from these eggs showed small pleomorphic, gram-variable bacilli that were not acid-fast. The organism has not grown on several artificial media tested but could be passed in embryonated eggs. Bacteriologic culture of the original lung tissue yielded *Escherichia coli*, *Pseudomonas* organisms, and 2 other non-fermentative bacilli. Suspensions of infected yolk sacs were used to prepare antigens for indirect fluorescent antibody (IFA) tests. With this antigen, convalescent sera from 9 cases of Legionnaires' disease were positive, and sera from 5 controls were negative at 1:64 dilutions in IFA testing. The 9 cases also had elevated IFA titers to the 2 organisms isolated from yolk sacs at CDC.

Reported by L Sideman, P Nash, PhD, V Pidcoe, DrPH, W Parkin, DVM, State Epidemiologist, L Bachman, MD, Pennsylvania Dept of Health.

CDC Report: Tests of the antimicrobial sensitivity of the agent of Legionnaires' disease are in process in yolk sacs of hens' embryonated eggs. Erythromycin has been the most effective of the drugs tested so far.

The organism has apparently been cultured now on a bacteriologic medium. The medium used was that of Mueller and Hinton supplemented with 1% hemoglobin and 1% of a supplement of bacterial nutrients (IsoVitaleX, BBL). Colonies may be discerned in 3 to 5 days after inoculation with infected yolk sacs or transfers from bacterial medium. Gram stain reveals that these gram-negative rods are of variable length. The growth on bacteriologic medium gave the same staining titers as did infected yolk sacs with acute and convalescent sera of a patient with Legionnaires' disease. Bacteria grown on the medium produced the typical disease in guinea pigs. The medium has not yet been compared to yolk sacs and guinea pigs for ability to detect small numbers of bacilli.

Reported by Special Bacteriology Section, Clinical Bacteriology Br, Bacteriology Div, Viral Zoonoses Br, and Leprosy and Rickettsia Br, Virology Div, Bur of Laboratories, CDC.

Follow-up on Malaria Alert for Travelers Returning from Lagos, Nigeria

Four additional confirmed cases of imported malaria in the United States and 2 suspect cases in Nigeria have been reported among a group of Americans who traveled to the Second World Black African Festival for Arts and Culture held in Lagos, Nigeria, from January 15 to February 12, 1977 (MMWR 26[9], 1977). This brings to 10 the number of reported cases of malaria in the group of approximately 900 persons who went to the festival, for an attack rate of 1.1%. The species of *Plasmodium* was reported for 7 of the cases; 5 were due to *P. falciparum*, 1 to *P. ovale*, and 1 to a mixed infection of *P. falciparum* and *P. ovale*. Of 6 patients for whom information is available, 5 took either inadequate or no prophylaxis, and the other reportedly took adequate doses of hydroxychloroquine prophylaxis; this patient's *P. falciparum* infection responded well to a standard course of chloroquine therapy.

New York State Dept of Health; RR Roberto, MD, DTPH, California Dept of Health; and Parasitic Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: Although no deaths were reported in this outbreak, malaria is a potentially fatal disease, particularly when due to *P. falciparum*, the predominant species in West Africa. It can readily be prevented when appropriate anti-malarial drugs are taken. The majority of cases in this outbreak failed to take adequate chemoprophylaxis. There is no evidence that *P. falciparum* in Africa is resistant to chloroquine or its analogues (4-aminoquinolines) (1).

All travelers to Nigeria should have taken chloroquine phosphate 500 mg (300 mg of base) every week starting the week before departure, during their stay in the endemic country, and for 6 weeks after returning to the United States. The pediatric dosage of chloroquine (base) for malaria prophylaxis is 5 mg/kg/wk.

Reference

1. World Health Organization: Weekly Epidemiological Record 52(7):70, 1977

Reported by J Reich, MD, Portland, Oregon; JA Googins, MD, State Epidemiologist, Oregon Health Division; JS Marr, MD, Director, Bur of Infectious Disease Control, HB Shookhoff, MD, New York City Dept of Health; D Lyman, MD, State Epidemiologist,

International Notes

Human Rabies — Switzerland

A 35-year-old man died of rabies in Switzerland on February 7, 1977. This was the first case of human rabies in the country since 1949. A detailed epidemiologic study is being made.

The disease has been present in animals in Switzerland since 1967, but an effective surveillance system, which enables the examination of both domestic and wild animals suspected of being infected, has been established. Post-

exposure treatment, linked to laboratory diagnosis, follows that proposed by the World Health Organization Expert Committee on Rabies (1).

Reference

1. World Health Organization: WHO Expert Committee on Rabies, Sixth Report (WHO Tech Rep No. 523). Geneva, 1973

Reported by the World Health Organization in the Weekly Epidemiological Record 52(8):80, 1977.

Poliomyelitis — Nicaragua

An outbreak of paralytic poliomyelitis has been reported in Nicaragua. It began on January 17, 1977; as of February 8, 16 cases had been reported. Nine of these cases occurred in Managua, 1 in Granada, 3 in Chinandega, 2 in Diriamba, and 1 in Matagalpa.

Nicaraguan health authorities have taken the proper measures to control the outbreak.

Reported by the World Health Organization in the Weekly Epidemiological Record 52(9):91, 1977.

Epidemiologic Notes and Reports

Salmonellosis Associated with Homemade Ice Cream — Michigan

An outbreak of intestinal illness in which homemade ice cream was the presumed vehicle of infection occurred July 5, 1976, in 3 neighboring counties in Michigan.

The outbreak involved 7 individuals, ranging in ages from 2 to 63 years, who became ill with symptoms of nausea, vomiting, diarrhea, abdominal cramps, chills, fever, and myalgia. The onset of symptoms began 12 to 24 hours after consumption of the suspect food. Four persons were hospi-

talized, and 2 others sought medical treatment. The mean duration of hospitalization was 5 days; no deaths occurred. Stool cultures from 3 ill individuals were positive for *Salmonella typhimurium*.

The 7 ill individuals were members of a family who assembled on July 3 for an Independence Day celebration. The food item common to all ill individuals was homemade ice cream; 2 persons at the gathering ate only this item.

(Continued on Page 99)

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 1972-1976	CUMULATIVE, FIRST 11 WEEKS		
	March 19, 1977	March 20, 1976		March 19, 1977	March 20, 1976	MEDIAN 1972-1976
Aseptic meningitis	41	35	33	395	405	380
Brucellosis	3	3	3	36	55	20
Chickenpox	7,687	6,317	---	63,926	59,273	---
Diphtheria	2	3	4	10	79	54
Encephalitis	Primary	9	15	127	167	167
	Post-Infectious	4	7	22	50	44
Hepatitis, Viral	Type B	323	296	3,261	2,942	2,072
	Type A	632	653	7,104	7,581	9,414
	Type unspecified	170	165	2,008	1,895	---
Malaria	8	9	9	65	65	61
Measles (rubeola)	1,685	1,553	782	14,338	8,498	7,272
Meningococcal infections, total	79	49	43	497	405	393
Civilian	79	49	42	494	402	378
Military	—	—	1	3	3	11
Mumps	634	1,299	1,935	6,352	13,889	18,476
Pertussis	12	13	---	134	244	---
Rubella (German measles)	1,230	655	655	5,390	3,445	3,445
Tetanus	—	1	1	6	7	10
Tuberculosis	589	703	---	6,000	6,482	---
Tularemia	—	1	1	15	24	22
Typhoid fever	11	5	5	69	71	54
Typhus, tick-borne (Rky. Mt. spotted fever)	1	—	—	19	5	11
Veneral Diseases:						
Gonorrhea	(Civilian) 17,916	16,807	---	197,725	204,522	---
Syphilis, primary and secondary	(Civilian) 518	477	---	5,698	6,311	---
Syphilis, primary and secondary	(Military) 355	472	---	4,711	5,545	---
Rabies in animals	4	4	---	66	77	---
	40	70	70	470	426	560

Table II. Notifiable Diseases of Low Frequency: United States

	CUM.		CUM.
Anthrax	—	Poliomyelitis, total:	2
Botulism: Calif. 1	9	Paralytic:	2
Congenital rubella syndrome:*	2	Psittacosis: Ups. N.Y. 1, Ala. 1	10
Leprosy: *N.J. 1, Tex. 1	27	Rabies in man:	—
Leptospirosis: Ups. N.Y. 1	10	Trichinosis:	24
Plague:	1	Typhus, murine: N.C. 1, Tex. 2	9

Delayed reports: Cong. Rubella syndrome: Tex. 1 (1976); Leprosy: Tex. delete 1 (1977)

Table III
Cases of Specified Notifiable Diseases: United States
Weeks Ending March 19, 1977 and March 20, 1976 - 11th Week

AREA REPORTING	ASEPTIC MENIN- GITIS	BRUCEL- LOSIS	CHICKEN- POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS, VIRAL			MALARIA	
						Primary: Arthropod- borne and Unspecified		Post In- fectious	Type B	Type A	Type Unspecified		
						1977	1976	1977	1977	1977	1977		
UNITED STATES	41	3	7,687	2	10	9	19	4	323	632	170	8	65
NEW ENGLAND	1	1	770	-	-	-	1	-	7	25	10	-	3
Maine	-	-	7	-	-	-	-	-	-	-	-	-	-
New Hampshire*	-	-	1	-	-	-	-	-	-	-	-	-	-
Vermont	-	-	11	-	-	-	-	-	-	-	1	-	-
Massachusetts	-	-	367	-	-	-	-	-	2	6	7	-	2
Rhode Island	1	-	154	-	-	-	-	-	4	1	-	-	1
Connecticut	-	1	230	-	-	-	1	-	1	13	2	-	-
MIDDLE ATLANTIC	10	1	1,337	-	1	1	1	1	80	63	25	4	15
Upstate New York	2	-	1,140	-	-	-	1	-	31	25	6	1	5
New York City	2	1	113	-	1	-	-	-	10	9	11	3	8
New Jersey	5	-	NV	-	-	1	-	-	24	13	8	-	1
Pennsylvania	1	-	84	-	-	-	-	1	15	16	-	-	1
EAST NORTH CENTRAL	4	-	3,219	-	-	-	2	-	57	128	15	-	5
Ohio	1	-	353	-	-	-	1	-	18	47	-	-	3
Indiana	1	-	175	-	-	-	-	-	1	7	12	-	-
Illinois	1	-	505	-	-	-	1	-	3	9	1	-	1
Michigan	1	-	1,454	-	-	-	-	-	28	57	1	-	1
Wisconsin*	-	-	732	-	-	-	-	-	7	8	1	-	-
WEST NORTH CENTRAL	2	1	773	-	-	1	4	-	16	43	8	1	5
Minnesota	-	-	1	-	-	-	3	-	5	12	-	1	2
Iowa	-	-	351	-	-	-	-	-	6	-	-	-	-
Missouri*	2	-	57	-	-	1	1	-	4	24	7	-	2
North Dakota	-	-	43	-	-	-	-	-	-	-	-	-	-
South Dakota	-	-	51	-	-	-	-	-	-	1	-	-	-
Nebraska	-	-	146	-	-	-	-	-	-	1	-	-	-
Kansas	-	1	124	-	-	-	-	-	1	5	1	-	1
SOUTH ATLANTIC	3	-	270	-	-	3	2	-	31	109	16	2	12
Delaware*	-	-	5	-	-	-	-	-	-	1	-	-	-
Maryland	-	-	16	-	-	-	-	-	8	13	4	-	5
District of Columbia	-	-	2	-	-	-	-	-	1	1	-	-	1
Virginia	1	-	13	-	-	1	1	-	7	12	1	-	3
West Virginia*	-	-	90	-	-	-	-	-	1	11	-	-	-
North Carolina	-	-	NV	-	-	-	-	-	8	9	4	-	-
South Carolina	-	-	27	-	-	-	-	-	3	4	3	-	-
Georgia*	-	-	1	-	-	-	-	-	2	46	-	-	1
Florida*	2	-	116	-	-	2	1	-	1	12	4	2	2
EAST SOUTH CENTRAL	7	-	70	-	-	2	1	-	9	40	4	-	3
Kentucky	1	-	36	-	-	-	1	-	-	-	1	-	3
Tennessee	2	-	NV	-	-	-	-	-	5	20	1	-	-
Alabama	2	-	26	-	-	-	-	-	3	14	2	-	-
Mississippi	2	-	8	-	-	2	-	-	1	5	-	-	-
WEST SOUTH CENTRAL	2	-	499	1	1	-	2	-	23	52	23	-	4
Arkansas	-	-	-	-	-	-	-	1	2	5	4	-	-
Louisiana	-	-	NV	-	-	-	-	-	5	5	2	-	-
Oklahoma	1	-	35	-	-	-	1	1	2	6	3	-	-
Texas*	1	-	464	1	1	-	1	-	14	36	14	-	4
MOUNTAIN	-	-	226	-	-	-	-	-	21	39	8	-	4
Montana	-	-	10	-	-	-	-	-	1	2	2	-	-
Idaho	-	-	26	-	-	-	-	-	-	7	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-	2	-	-	-
Colorado*	-	-	115	-	-	-	-	-	9	5	5	-	3
New Mexico	-	-	2	-	-	-	-	-	5	10	-	-	-
Arizona	-	-	NV	-	-	-	-	-	6	12	1	-	1
Utah	-	-	57	-	-	-	-	-	-	1	-	-	-
Nevada*	-	-	16	-	-	-	-	-	-	-	-	-	-
PACIFIC	12	-	523	1	8	2	6	1	79	138	61	1	14
Washington	1	-	489	1	7	-	4	-	6	5	2	-	-
Oregon	2	-	1	-	-	-	1	-	3	13	1	1	1
California*	8	-	-	-	-	2	-	1	68	101	57	-	9
Alaska	-	-	13	-	1	-	1	-	-	15	-	-	-
Hawaii	1	-	20	-	-	-	-	-	2	2	1	-	4
Guam*	NA	NA	NA	NA	-	NA	-	-	-	NA	NA	NA	-
Puerto Rico	-	-	12	-	-	-	-	-	1	8	-	-	-
Virgin Islands*	-	-	-	-	-	-	-	-	-	-	-	-	-

NN: Not notifiable
 NA: Not available
 *Delayed reports: Aseptic meningitis: W. Va. delete 1 (1977); Chickenpox: N. Hamp. add 10, Mo. add 17, Fla. add 1, Calif. add 48, Guam add 13, V.I. add 1 (1977); Enceph. post.: Wisc. add 1 (1977); Hep. B: Mo. delete 3, Ga. add 18, Colo. delete 2, Nev. add 4 (1977); Hep. A: Mo. delete 2, Ga. delete 18, Tex. delete 1 (1977); Hep. unsp.: Dela. delete 2, Nev. add 2, Guam add 1, V.I. add 1 (1977).

Table III-Continued
 Cases of Specified Notifiable Diseases: United States
 Weeks Ending March 19, 1977 and March 20, 1976 — 11th Week

REPORTING AREA	MEASLES (Rubella)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1977	CUMULATIVE		1977	CUMULATIVE		1977	CUM. 1977	1977	1977	CUM. 1977	CUM. 1977
		1977	1976		1977	1976						
UNITED STATES	1,685	14,338	8,498	79	497	405	634	6,352	12	1,230	5,390	6
NEW ENGLAND	76	595	106	4	30	24	23	302	-	31	208	-
Maine	-	3	3	-	2	-	5	20	-	-	11	-
New Hampshire*	1	155	-	1	5	2	-	31	-	3	25	-
Vermont	6	160	-	1	2	1	-	5	-	21	27	-
Massachusetts*	13	123	2	-	5	6	4	52	-	4	84	-
Rhode Island	4	5	12	-	-	4	3	23	-	-	13	-
Connecticut	52	149	89	2	16	11	11	171	-	3	48	-
MIDDLE ATLANTIC	231	1,617	1,603	11	69	37	50	411	3	472	1,399	-
Upstate New York	84	412	567	7	22	10	11	62	2	371	667	-
New York City	7	80	63	-	12	11	20	174	1	8	85	-
New Jersey	3	31	97	1	17	8	7	98	-	81	581	-
Pennsylvania	137	1,094	876	3	18	8	12	77	-	12	66	-
EAST NORTH CENTRAL ..	354	3,685	3,303	10	47	44	264	2,263	3	244	1,424	-
Ohio	7	162	4	3	24	13	41	387	1	78	367	-
Indiana	164	1,889	671	2	2	3	16	123	-	81	483	-
Illinois	2	333	300	1	6	5	25	217	-	9	106	-
Michigan	90	359	1,080	3	12	19	88	736	2	45	323	-
Wisconsin	91	942	1,248	1	3	4	94	800	-	31	145	-
WEST NORTH CENTRAL ..	251	2,874	159	18	32	37	117	1,513	-	10	159	1
Minnesota	28	391	37	13	14	5	-	3	-	-	5	-
Iowa*	199	1,770	8	1	2	7	94	870	-	2	79	-
Missouri	6	169	4	1	11	10	9	275	-	4	14	1
North Dakota	-	2	1	1	1	-	-	4	-	-	-	-
South Dakota	-	9	-	2	3	2	1	13	-	-	-	-
Nebraska	-	67	36	-	-	2	3	14	-	-	1	-
Kansas	18	466	73	-	1	11	10	334	-	4	60	-
SOUTH ATLANTIC	147	685	601	15	105	88	19	244	-	101	424	1
Delaware	-	17	71	-	1	-	2	43	-	3	7	-
Maryland	-	30	272	1	8	6	2	17	-	-	-	-
District of Columbia ..	1	1	1	-	-	-	-	2	-	-	-	-
Virginia	125	415	11	2	6	10	-	38	-	22	98	1
West Virginia*	2	38	77	-	6	3	4	65	-	2	29	-
North Carolina	1	16	-	8	27	17	1	11	-	73	174	-
South Carolina	4	71	-	3	10	12	-	5	-	-	89	-
Georgia*	14	91	-	1	20	6	1	6	-	-	14	-
Florida	-	6	169	-	27	34	9	57	-	1	13	-
EAST SOUTH CENTRAL ..	27	211	231	6	51	28	29	348	1	219	738	1
Kentucky	1	83	221	-	17	3	7	28	1	-	18	1
Tennessee	26	119	5	-	11	13	16	208	-	219	716	-
Alabama	-	-	-	5	17	9	3	104	-	-	3	-
Mississippi	-	9	5	1	6	3	3	8	-	-	1	-
WEST SOUTH CENTRAL ..	133	751	294	8	89	68	36	577	-	53	299	2
Arkansas	-	1	-	-	4	2	1	5	-	-	-	-
Louisiana	6	49	5	6	37	8	4	26	-	1	7	1
Oklahoma	1	35	189	1	2	11	8	212	-	1	14	-
Texas*	132	666	100	1	46	47	23	334	-	51	278	1
MOUNTAIN	147	969	1,775	3	13	19	35	242	-	23	163	-
Montana	110	595	49	-	-	2	-	2	-	-	5	-
Idaho	-	25	650	-	1	1	3	58	-	-	-	-
Wyoming	-	1	-	-	-	-	-	-	-	-	1	-
Colorado*	22	246	34	-	1	8	24	80	-	21	117	-
New Mexico	-	5	3	3	5	1	4	62	-	-	1	-
Arizona	6	73	171	-	5	3	-	-	-	-	-	-
Utah	-	2	855	-	-	4	4	39	-	-	36	-
Nevada	9	22	13	-	1	-	-	1	-	2	3	-
PACIFIC	313	2,951	426	4	61	60	61	452	5	77	576	1
Washington	8	190	34	-	8	14	14	101	1	29	179	-
Oregon	-	68	5	2	5	5	7	91	-	9	34	-
California	305	2,645	385	1	38	37	37	236	4	38	358	1
Alaska	-	48	-	1	9	3	2	17	-	-	-	-
Hawaii	-	-	2	-	1	1	1	7	-	1	5	-
Guam*	NA	2	4	-	-	1	NA	-	NA	NA	-	-
Puerto Rico	44	169	45	-	-	1	27	159	-	1	4	2
Virgin Islands*	-	5	-	-	-	-	25	61	-	-	-	-

NA: Not available

*Delayed reports: Measles: N. Hamp. add 11, Mass. delete 1, Iowa delete 5, W. Va. delete 2, Guam add 1, V. I. add 1 (1977); Men. Inf.: Ga. delete 1 (1977); Mumps: N. Hamp. add 1, V. I. add 3 (1977); Rubella: N. Hamp. add 3, W. Va. add 2, Tex. delete 1, Colo. delete 11, Guam add 2 (1977).

Table III-Continued
 Cases of Specified Notifiable Diseases: United States
 Weeks Ending March 19, 1977 and March 20, 1976 - 11th Week

REPORTING AREA	TUBERCULOSIS		TULA- REMIA	TYPHOID FEVER		TYPHUS-FEVER TICK-BORNE (RMSF)		VENEREAL DISEASES (Civilian Cases Only)					RABIES IN ANIMALS	
	1977	CUM. 1977	CUM. 1977	1977	CUM. 1977	1977	CUM. 1977	GONORRHEA		SYPHILIS (Pri. & Sec.)		CUM. 1977		
								1977	CUMULATIVE	1977	CUMULATIVE			
								1977	1976	1977	1976			
UNITED STATES	589	6,300	15	11	69	1	19	17,916	197,725	204,521	355	4,711	5,545	470
NEW ENGLAND	20	207	1	-	2	-	-	385	5,073	5,689	10	165	159	7
Maine	1	16	-	-	-	-	-	40	433	498	-	7	6	7
New Hampshire	-	6	-	-	-	-	-	13	192	125	-	-	1	-
Vermont*	-	8	-	-	-	-	-	18	125	118	-	2	2	-
Massachusetts	11	108	1	-	1	-	-	136	2,179	2,754	8	118	110	-
Rhode Island	1	12	-	-	-	-	-	40	368	367	-	2	8	-
Connecticut	7	57	-	-	1	-	-	138	1,776	1,827	2	36	32	-
MIDDLE ATLANTIC	55	875	-	3	13	-	1	1,818	22,328	21,232	63	680	962	5
Upstate New York	12	136	-	-	1	-	1	342	2,923	2,915	-	52	53	5
New York City	28	275	-	1	7	-	-	688	10,632	9,027	42	436	646	-
New Jersey	15	230	-	-	3	-	-	191	3,102	3,638	12	91	134	-
Pennsylvania	-	234	-	2	2	-	-	597	5,671	5,652	9	101	129	-
EAST NORTH CENTRAL	116	1,015	2	1	8	-	-	2,192	29,383	33,806	33	526	531	17
Ohio	11	162	1	-	2	-	-	410	7,372	8,716	10	145	122	-
Indiana	10	101	-	-	-	-	-	157	2,462	3,027	4	35	27	1
Illinois	63	378	-	-	1	-	-	938	10,321	12,070	14	273	294	2
Michigan	29	324	-	1	5	-	-	552	6,535	6,868	2	51	69	1
Wisconsin	3	50	1	-	-	-	-	135	2,693	3,125	3	22	19	13
WEST NORTH CENTRAL	20	186	3	1	5	-	3	868	10,158	10,108	6	102	106	111
Minnesota*	1	38	-	-	1	-	-	202	1,769	1,945	3	34	26	45
Iowa*	3	21	-	-	-	-	-	156	1,300	1,351	1	8	15	15
Missouri*	9	77	2	1	2	-	3	387	4,348	3,937	1	30	46	9
North Dakota*	2	4	-	-	-	-	-	15	161	149	-	-	-	14
South Dakota	3	7	1	-	-	-	-	33	275	321	-	1	2	20
Nebraska	-	6	-	-	-	-	-	24	771	840	1	14	7	-
Kansas	2	33	-	-	2	-	-	51	1,534	1,565	-	15	10	8
SOUTH ATLANTIC	125	1,425	5	-	13	1	9	5,384	47,134	48,536	100	1,358	1,651	54
Delaware	3	15	-	-	-	-	-	60	615	693	-	11	14	-
Maryland	17	208	-	-	-	-	-	600	5,808	6,863	11	94	139	-
District of Columbia	5	62	-	-	-	-	-	231	2,513	2,896	11	141	150	-
Virginia	15	158	-	-	5	-	1	534	4,964	5,478	11	128	146	2
West Virginia	9	61	-	-	2	-	-	48	610	626	-	1	11	1
North Carolina	26	255	2	-	1	1	6	1,011	7,608	7,258	14	191	319	-
South Carolina	8	133	2	-	-	-	-	499	4,415	4,442	6	62	90	-
Georgia	16	161	3	-	-	-	2	1,197	9,313	9,261	25	248	204	44
Florida	26	372	-	-	5	-	-	1,204	11,288	11,019	22	482	578	7
EAST SOUTH CENTRAL	68	505	-	-	1	-	4	1,410	16,790	18,283	20	165	244	11
Kentucky	10	103	-	-	-	-	1	227	2,348	2,366	5	19	39	6
Tennessee	25	179	-	-	-	-	2	554	6,855	7,036	2	43	99	3
Alabama	20	138	-	-	1	-	1	358	4,428	5,135	5	31	45	2
Mississippi	13	85	-	-	-	-	-	271	3,159	3,746	8	72	61	-
WEST SOUTH CENTRAL	70	661	1	-	-	-	2	2,163	25,937	29,009	42	602	620	180
Arkansas	7	61	-	-	-	-	-	168	1,967	2,583	-	14	23	13
Louisiana	20	149	-	-	-	-	-	167	3,611	4,067	12	132	125	1
Oklahoma	11	65	-	-	-	-	1	212	2,281	2,649	-	17	33	71
Texas*	32	386	1	-	-	-	1	1,616	18,078	19,710	30	439	439	95
MOUNTAIN	30	171	3	-	6	-	-	722	7,988	8,209	8	104	151	7
Montana	-	5	1	-	-	-	-	43	431	428	-	-	2	7
Idaho	2	11	-	-	-	-	-	10	363	412	-	2	5	-
Wyoming	1	4	-	-	-	-	-	20	219	170	2	7	4	-
Colorado	2	29	2	-	4	-	-	151	2,029	2,145	2	29	45	-
New Mexico	5	27	-	-	-	-	-	136	1,179	1,638	-	15	42	-
Arizona	17	80	-	-	1	-	-	198	2,241	2,290	3	44	40	-
Utah	2	6	-	-	1	-	-	33	454	488	1	5	1	-
Nevada	1	9	-	-	-	-	-	131	1,072	638	-	2	12	-
PACIFIC	85	955	-	6	21	-	-	2,974	32,934	29,649	73	1,009	1,121	78
Washington	NA	32	-	-	-	-	-	233	2,422	2,529	NA	21	27	-
Oregon	5	40	-	-	2	-	-	248	2,374	2,225	2	38	35	-
California	66	733	-	6	19	-	-	2,288	26,434	23,397	71	935	1,039	69
Alaska	-	8	-	-	-	-	-	155	1,029	897	-	4	1	9
Hawaii	14	142	-	-	-	-	-	50	675	601	-	11	19	-
Guam*	NA	10	-	NA	-	NA	-	NA	53	94	NA	-	-	-
Puerto Rico	7	73	-	-	1	-	-	42	610	582	5	119	119	8
Virgin Islands*	-	-	-	-	-	-	-	4	27	57	1	1	24	-

NA: Not available

*Delayed reports: TB: Mo. delete 1 (1976); Iowa delete 1, Mo. delete 1, N. Dak. add 1, Guam add 1, V.I. add 1 (1977); Typhoid fever: Tex. add 5 (1976); GC: Guam add 9, V.I. add 2 (1977); Syphilis: Vt. add 1, Guam add 1 (1977); An. rabies: Minn. add 1 (1977).

Table IV
Deaths in 121 United States Cities*
Week Ending March 19, 1977 - 11th Week

REPORTING AREA	ALL CAUSES					Pneumonia and Influenza ALL AGES	REPORTING 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	611	396	143	40	14	33	SOUTH ATLANTIC	1,349	783	381	89	50	68
Boston, Mass.	161	94	42	10	8	7	Atlanta, Ga.	163	85	50	18	7	6
Bridgeport, Conn.	43	29	9	2	2	3	Baltimore, Md.	218	136	53	14	4	5
Cambridge, Mass.	29	19	7	2	-	1	Charlotte, N. C.	68	41	22	3	1	6
Fall River, Mass.	28	19	7	2	-	2	Jacksonville, Fla.	93	54	29	1	3	8
Hartford, Conn.	53	39	7	4	1	2	Miami, Fla.	137	78	47	7	2	9
Lowell, Mass.	30	19	9	2	-	2	Norfolk, Va.	63	37	14	2	7	5
Lynn, Mass.	23	15	6	1	-	3	Richmond, Va.	96	49	27	3	13	9
New Bedford, Mass.	19	11	5	-	1	2	Savannah, Ga.	51	35	11	4	1	2
New Haven, Conn.	36	25	8	3	-	4	St. Petersburg, Fla.	91	77	13	-	-	3
Providence, R.I.	49	31	11	4	1	4	Tampa, Fla.	83	48	18	8	3	9
Somerville, Mass.	13	10	3	-	-	1	Washington, D. C.	223	110	80	25	2	4
Springfield, Mass.	31	22	7	1	1	-	Wilmington, Del.	63	33	17	4	7	2
Waterbury, Conn.	40	24	14	2	-	3							
Worcester, Mass.	56	39	8	7	-	5	EAST SOUTH CENTRAL	807	471	212	40	38	49
MIDDLE ATLANTIC	2,923	1,813	743	150	127	145	Birmingham, Ala.	154	90	45	9	7	4
Albany, N. Y.	52	27	17	2	3	1	Chattanooga, Tenn.	59	34	12	6	2	4
Allentown, Pa.	22	15	5	2	-	1	Knoxville, Tenn.	54	45	9	-	-	-
Buffalo, N. Y.	121	70	27	7	7	7	Louisville, Ky.	122	63	40	8	3	20
Camden, N. J.	46	29	12	2	2	-	Memphis, Tenn.	150	83	44	5	5	5
Elizabeth, N. J.	25	21	3	-	1	-	Mobile, Ala.	68	44	10	1	12	3
Erie, Pa.	27	18	8	1	-	5	Montgomery, Ala.	41	21	14	1	2	4
Jersey City, N. J.	53	33	9	1	-	1	Nashville, Tenn.	159	91	38	10	7	9
Newark, N. J.	99	53	34	3	3	4	WEST SOUTH CENTRAL	1,268	714	365	85	49	41
New York City, N. Y.	1,404	871	352	90	59	56	Austin, Tex.	36	20	7	6	-	2
Paterson, N. J.	37	25	11	-	1	-	Baton Rouge, La.	56	31	18	2	-	5
Philadelphia, Pa.	408	237	112	19	31	26	Corpus Christi, Tex.	32	21	7	3	1	-
Pittsburgh, Pa.	193	112	54	8	12	20	Dallas, Tex.	164	102	37	14	5	6
Reading, Pa.	35	23	11	1	-	1	El Paso, Tex.	52	27	18	5	2	3
Rochester, N. Y.	140	89	35	4	3	10	Fort Worth, Tex.	70	40	18	5	3	3
Schenectady, N. Y.	23	16	6	-	1	1	Houston, Tex.	277	126	107	19	4	6
Scranton, Pa.	42	29	11	2	-	2	Little Rock, Ark.	56	34	16	3	1	-
Syracuse, N. Y.	87	61	18	3	3	2	New Orleans, La.	161	84	61	6	9	-
Trenton, N. J.	44	34	7	2	1	2	San Antonio, Tex.	216	137	47	13	12	8
Utica, N. Y.	31	24	5	1	-	4	Shreveport, La.	48	29	10	3	3	1
Yonkers, N. Y.	34	26	6	2	-	2	Tulsa, Okla.	100	63	19	6	9	7
EAST NORTH CENTRAL	2,351	1,403	607	151	103	79	MOUNTAIN	597	366	147	34	22	20
Akron, Ohio	75	49	19	4	2	-	Albuquerque, N. Mex.	53	25	16	6	1	4
Canton, Ohio	46	30	13	1	-	4	Colorado Springs, Colo.	38	26	3	2	2	4
Chicago, Ill.	559	289	158	55	31	11	Denver, Colo.	139	85	41	4	5	5
Cincinnati, Ohio	172	115	39	10	6	5	Las Vegas, Nev.	35	17	13	3	-	-
Cleveland, Ohio	204	122	57	10	10	3	Ogden, Utah	27	21	5	-	1	2
Columbus, Ohio	134	79	34	7	6	2	Phoenix, Ariz.	144	90	31	9	9	2
Dayton, Ohio	95	56	26	3	6	1	Pueblo, Colo.	15	8	6	1	-	2
Detroit, Mich.	286	166	75	24	12	9	Salt Lake City, Utah	58	40	11	1	4	-
Evansville, Ind.	44	31	11	1	-	3	Tucson, Ariz.	88	54	21	8	-	1
Fort Wayne, Ind.	39	28	8	2	-	4	PACIFIC	1,421	864	340	109	61	42
Gary, Ind.	32	12	9	5	4	1	Berkeley, Calif.	15	12	2	-	1	1
Grand Rapids, Mich.	58	46	7	1	3	9	Fresno, Calif.	70	42	18	4	3	1
Indianapolis, Ind.	139	79	37	9	6	5	Glendale, Calif.	15	10	2	1	1	-
Madison, Wis.	32	20	9	1	2	5	Honolulu, Hawaii	61	35	18	3	3	2
Milwaukee, Wis.	128	75	40	6	4	2	Long Beach, Calif.	95	58	25	6	3	4
Peoria, Ill.	33	21	6	1	3	1	Los Angeles, Calif.	283	151	65	35	14	7
Rockford, Ill.	43	29	7	2	-	7	Oakland, Calif.	72	49	16	6	-	2
South Bend, Ind.	54	35	13	3	3	4	Pasadena, Calif.	24	18	2	3	1	-
Toledo, Ohio	106	72	22	5	2	1	Portland, Oreg.	118	74	28	5	7	3
Youngstown, Ohio	75	49	17	1	3	2	Sacramento, Calif.	58	36	14	5	-	5
WEST NORTH CENTRAL	796	507	197	48	25	24	San Diego, Calif.	136	80	32	13	5	2
Des Moines, Iowa	73	51	14	5	1	2	San Francisco, Calif.	150	92	39	10	8	-
Duluth, Minn.	28	20	5	1	1	3	San Jose, Calif.	72	42	18	9	1	5
Kansas City, Kans.	34	24	8	2	-	1	Seattle, Wash.	147	86	43	7	9	6
Kansas City, Mo.	121	69	36	10	5	1	Spokane, Wash.	66	54	6	2	3	2
Lincoln, Nebr.	31	22	6	1	-	1	Tacoma, Wash.	39	25	12	-	2	2
Minneapolis, Minn.	106	64	30	5	5	2	TOTAL	12,123	7,317	3,135	746	489	501
Omaha, Nebr.	88	51	29	6	1	1	Expected Number	12,387	7,639	3,188	760	389	540
St. Louis, Mo.	192	129	36	14	9	7							
St. Paul, Minn.	63	41	16	3	1	2							
Wichita, Kans.	60	36	17	1	2	4							

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

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.

Send mailing list additions, deletions, and address changes to: Center for Disease Control, Attn.: Distribution Services, GSD, 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.

Salmonellosis — Continued

Two other family members who did not eat the ice cream remained well.

The ice cream had been prepared by mixing raw fresh eggs obtained from the family farm, evaporated milk, pasteurized milk, sugar, and vanilla flavoring. The mixture (custard) was not cooked, but was frozen immediately after it was mixed. When samples of the ice cream and the ingredients used to prepare it were cultured, *S. typhimurium* was isolated both from the ice cream and from a pool of 2 remaining unbroken eggs, but not from other ingredients.

Eggs used in this preparation had been collected from feces-encrusted metal nests. The eggs may have been in the nests for as long as 7 to 10 hours before being collected. The eggs had been washed just after collection and then stored under refrigeration for approximately 24 hours before being mixed with the ice cream custard. All eggs in the batch were reported to have had intact shells; however, 2 eggs from the same batch that were submitted for culture were cracked when received at the laboratory. One week after the outbreak, 12 eggs from the same farm were cultured for *Salmonella* organisms. Cultures of the outer shell and internal contents failed to grow the organism.

Reported by R Locey, MD, P Owens, RN, Oakland City Health

Current Trends**Preliminary Report on American Hospital Association's Survey of Hospital-Based Patient Education Programs**

The American Hospital Association (AHA), as part of a contract with the Bureau of Health Education (BHE), CDC, recently reported the preliminary results of a survey conducted in 1975 of inpatient education programs in AHA's member hospitals. A total of 5,770 questionnaires were mailed to community hospitals, and 4,669 responses were completed (80.9% return).

Of the responding hospitals, 2,680 reported 1 or more adult patient education programs which had written goals and objectives. A total of 1,278 hospitals reported a specific department responsible for coordinating inpatient education activities. The 10 most frequently reported specific programs for adults are listed in Table 1. The 5 most often reported programs for children are listed in Table 2. Regis-

TABLE 1. Most frequently reported specific, adult patient education programs in hospitals.

Type of Program	No. of Hospitals Reporting
Diabetes	2,097
Nutrition	1,453
Prenatal	1,426
Ostomy	1,337
Mastectomy	1,275
Heart Attack	1,263
Postnatal	1,200
Preoperative	1,186
Respiratory	906
Postoperative	894

TABLE 2. Most frequently reported specific, pediatric patient education programs in hospitals.

Type of Program	No. of Hospitals Reporting
Diabetes	960
Nutrition	537
Orientation to Hospital	485
Preoperative	484
Postoperative	348

Dept; G Markakis, MS, RP Daniels, MS, DF Fuller Jr, D Muentener, MS, Michigan Dept of Agriculture; NS Hayner, MD, State Epidemiologist, KS Read, PhD, Michigan Dept of Public Health; and Enteric Diseases Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: *Salmonella* organisms that are pathogenic to man may be present in the intestinal tract of domestic egg-laying hens. Such organisms may contaminate eggs by penetration through the egg shell and, more rarely, by direct ovarian transmission (1,2). Cracks (checks) in the egg shell may permit *Salmonella* organisms to enter the egg rapidly; however, less frequently penetration through pores in the intact shell may occur (1,2).

As in this outbreak, ungraded eggs rather than commercially graded eggs are the usual cause of such outbreaks. Eleven outbreaks of *Salmonella enteritidis* due to homemade ice cream have been reported to CDC from 1973 to 1975; the source was farm or home-produced chicken eggs in 6 (55%), duck eggs (presumably farm or home-produced) in 2 (18%), and unknown in 3 (27%).

References

- Williams JE, Dillard LH, Hall GO: The penetration patterns of *Salmonella typhimurium* through the outer structures of chicken eggs. *Avian Dis* 7:445-466, 1968
- Adler HE: *Salmonella* in eggs — an appraisal. *Food Technology* 19:191-192, 1965

tered nurses and dietitians/nutritionists were the professional groups reportedly most involved in planning and teaching (Table 3).

Materials used by patient education programs were also identified in the survey. Both externally and internally produced materials were used, the most frequent being printed materials, such as brochures, booklets, and pamphlets (in 2,487 hospitals), followed by filmstrips (in 1,464), and films (1,412). Video programs (in 611 hospitals) and telephone dial access programs (in 282 hospitals) are also being used in patient education.

Based on this information, the AHA and BHE are developing ways to assist hospital staff in becoming more effective providers of patient education.

TABLE 3. Professional groups involved in planning and teaching in patient education programs in hospitals.

Professional Group	Planning (No. of Hospitals Reporting)	Teaching (No. of Hospitals Reporting)
Registered nurses	2,181	2,503
on inpatient units		
Dietitians/Nutritionists	2,002	2,260
Licensed practical nurses	899	1,569
on unit		
Nursing inservice	1,830	1,558
[education] staff		
Physical therapists	1,284	1,507
Respiratory therapists	1,065	1,269
Physicians	1,557	1,150
Community support groups	858	1,151
(Alcoholics Anonymous, Ostomy Clubs, etc.)		

Reported by the American Hospital Association; and the Community Program Development Div, Bur of Health Education, CDC.

▲ Individual copies of the preliminary survey report may be obtained from the AHA, 840 North Lake Shore Drive, Chicago, Illinois, 60611, or BHE.

Influenza — United States

Pneumonia and influenza mortality has been slightly above epidemic threshold in the South Atlantic region for the past 2 weeks but has remained within the expected range for all other regions. Influenza illness has decreased throughout the eastern United States, while increasing in the western part of the country. The predominant cause of influenza illness continues to be influenza B, but the number of reported isolates decreased during the past week. Sporadic isolations of A/Victoria/3/75-like virus have been recently reported for the first time this year from New York, Oklahoma, Tennessee, Vermont, Virginia, Wisconsin, and the District of Columbia.

Influenza A virus isolates received by the World Health Organization (WHO) Collaborating Center for Influenza, CDC, from Alabama, Florida, Georgia, North Carolina, South Carolina, and Vermont resemble A/Victoria/3/75. However, several isolates recently submitted for antigenic analysis from Texas and Colorado have been found in HI tests to differ from A/Victoria/3/75. The variant virus (prototype A/Texas/1/77) may be similar to a virus A/Victoria/112/76(H3N2), isolated in Australia during July 1976 from 2 cases of influenza, and also isolated from a single case of influenza in Manila, Philippines, during August 1976. However, in both Australia and the Philippines, most isolates made last year were like A/Victoria/3/75.

International Notes

The following change should be made in the *Supplement — Health Information for International Travel*, MMWR, Vol. 25, October 1976:

Vol. 25, No. 52

p429 In the table entitled "Results of Gonorrhea Culture Tests on Females — United States," the number of women tested by private family planning groups should read 959,206 — not 459,206, as printed.

Vol. 26, No. 5

p32 In the article, "Human Rabies — Texas," the first name in the credits should read "PC Craven, MD."

The first U. S. isolate of the variant virus was from a 28-year-old man who lives in San Antonio, Texas, and was ill during the first week of December 1976. Immediately before his illness the man had contact with Air Force personnel at a nearby base. Isolates of A/Texas/1/77-like virus were made from military personnel in February and March during outbreaks of influenza at Air Force bases in San Antonio, Texas, and Denver, Colorado. Influenza activity at both bases has now subsided. A single isolate of A/Texas/1/77-like virus was also made in February from a 49-year-old Houston, Texas, woman who became ill shortly after visiting San Antonio. Most isolates of influenza A from Houston have been found to resemble A/Victoria/3/75, however, and no influenza A isolates have been recovered from the civilian population in Colorado. Further epidemiologic and laboratory investigations of A/Texas/1/77 influenza are continuing.

Reported by GS Irving, TG Ksiazek, JG Olson, Naval Medical Research Unit No. 2, Taipei, Taiwan, Republic of China; R Bell, MD, R Hernandez, MD, C Rothe, MD, San Antonio, Texas; G Lathrop, MD, Brooks Air Force Base, Texas; P Glezen, MD, Houston, Texas; G Meiklejohn, MD, Denver, Colorado; State Epidemiologists from Texas, Colorado, New York, Oklahoma, Tennessee, Virginia, Vermont, Wisconsin, and the District of Columbia; the National Institute of Allergy and Infectious Diseases, Bethesda, Maryland; Virology Div, Bur of Laboratories, and the National Influenza Immunization Program, CDC.

Quarantine Measures

YEMEN, DEMOCRATIC

Smallpox — Change code to II. Insert: A Certificate is ALSO required from travelers who within the preceding 14 days have been in a country any part of which is infected.

Errata

Also, substitute "R Smyth, MD," for "R Smythe, MD." The following names were inadvertently excluded: FL Grover, MD, Dept of Surgery, HW Huntington, MD, Dept of Pathology, University of Texas Health Science Center, San Antonio; PA Woods, NB Gagliano, Bexar County Hospital, San Antonio; LC DeHoyos, MD, Maverick County Hospital, Eagle Pass, Texas; and DC Blenden, DVM, University of Missouri-Columbia College of Veterinary Medicine.

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