

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

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Epidemiologic Notes and Reports

Salmonella infantis — California, Colorado

California: Investigation by the San Diego Health Department of 6 cases of nosocomial *Salmonella infantis* infection that occurred in late December and early January among infants at 3 local hospitals revealed that 4 of the 6 patients had been fed a common isotonic diet. On January 26, *Salmonella* organisms (Group C1) were isolated from 2 production lots of this food at the FDA laboratory in Los Angeles.

The product was identified as "Precision Isotonic Diet" formula for oral or tube feedings often used in hospitalized individuals of all ages. The ingredients include egg albumin, sucrose, glucose, vitamins, and minerals. It is produced by Doyle Pharmaceutical Company in Minneapolis, Minnesota, and packaged as a powder in 2.06 oz. envelopes. The contaminated lots are 117A1286Ub and 478A2806U, which were produced on May 7 and October 6, 1976, respectively. The product is distributed in the United States and Canada.

The manufacturer suggests that the egg albumin may have been the source of contamination and has initiated a voluntary recall of all lots of the 2 products that contain this egg albumin, Precision Isotonic Diet and Precision Moderate Nitrogen Diet.

New production lots of these products — which contain egg albumin from a different source — will be identified by a code ending in the letter "Z" embossed on the edge of the envelope and printed in red ink on the case.

Colorado: Following report of the California outbreak, investigation by the Colorado State Health Department identified an additional case of nosocomial *S. infantis* infection in an 11-year-old girl who had received Precision Isotonic Diet during May and June 1976.

Reported by S Emerson, M Ginsberg, MD, S Naset, TR Philp, MD, V Taylor, M Thompson, DrPH, San Diego County Health Dept; CF Bryson, TF Midura, PhD, H Ratzay, SB Werner, MD, California State Dept of Health; TM Vernon, MD, State Epidemiologist, Colorado State Dept of Health; Food and Drug Administration; Enteric Diseases Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: *S. infantis* is 1 of the 10 most commonly isolated *Salmonella* serotypes. National surveillance data do not reveal an increase in isolations of this serotype during 1976 except for a slight increase in California. Any cases of *S. infantis* associated with the administration of this or other products should be reported to local and state health officials.

Current Trends

Carbon Monoxide and Liquefied Petroleum Gas Leakage Hazards in Recreational Vehicles — New Mexico

Preliminary findings of the Carbon Monoxide Hazard Reduction in Recreational Vehicles Program in New Mexico indicate a potentially serious health problem. Of 410 recreational vehicles (RV's) — including small trailers and pickup campers — surveyed from July through November, 1976, 60 (15%) units had overall inside carbon monoxide (CO) concentrations in excess of 34 ppm. In 58 units the source was an appliance; ovens, gas lamps, and stoves were the major sources. In 2 vehicles the vehicle's engine exhaust fumes were leaking into the RV.

Liquefied Petroleum Gas (LPG) leaks were detected in 173 (42%) units. The causes of the leaks found included loose or faulty connections, pilot lights inadvertently left on but not lit, and faulty burner control valves.

All owners were notified of the hazards. In general, the operators were unaware of the leaks and CO hazards. Major contributing factors were inadequate maintenance, carelessness, and the operators' lack of awareness concerning the

operation and maintenance of their appliances. Faulty design of some venting systems was also found.

Editorial Note: Carbon monoxide is a deadly gas (odorless, colorless, tasteless, non-irritating) produced when fuel is incompletely burned. Any device that uses fuel (cooking stove, lamp, space heater, hot water heater, engine, for example) has an air inlet to supply oxygen for combustion. If the inlet is improperly adjusted or if the air flow is restricted by debris or dirt, the amount of CO produced increases sharply. Low levels of CO in an enclosed area cause headache, dizziness, and sleepiness. Continued exposure causes nausea, vomiting, and irregular heartbeat. If one is exposed to high levels of CO for a prolonged time unconsciousness and death may ensue. Also, effects on the brain and nervous system may indirectly cause an accident resulting in injury or death. Carbon monoxide is particularly hazardous at altitudes when the oxygen tension of the ambient air is low.

Carbon Monoxide — Continued

Misuse of LPG or gas leaks create a hazardous condition which may result in fire or explosion. LPG vapors are heavier than air. Leaking gas will settle to the floor of the vehicle or compartments. It may be present in a high

enough concentration to ignite should it come in contact with a source of ignition.

Reported by WC Bennet, JW Edwards, Environmental Chemicals Section, New Mexico Environmental Improvement Agency; and the Environmental Health Services Div, Bur of State Services, CDC.

Epidemiologic Notes and Reports**Isolation of Mycobacteria Species from Porcine Heart Valve Prostheses — United States**

Since October 1976, CDC has received reports from 6 medical centers that 14 isolates of mycobacteria species have been obtained from preimplantation cultures of porcine heterograft heart valves manufactured by Hancock Laboratories Incorporated, Anaheim, California. The cultures usually have become positive after approximately 2-week incubations in thioglycollate media. The isolates have not grown well on the media routinely used for isolation of mycobacteria. Two isolates have been identified at CDC as being *Mycobacterium chelonae*; the other isolates thus far are not identified. All 14 culture-positive valves were used for cardiac valve replacement before the cultures became positive. In patients receiving these prostheses, there has been no documented mycobacterial disease associated with the valves.

Pig hearts are shipped to the manufacturer from abattoirs throughout the country. Aortic valves are excised and treated with a 0.2% buffered glutaraldehyde solution; they

are trimmed and attached to a polypropylene sewing ring. During processing, valves and excised aortic wall remnants are treated with 1% buffered glutaraldehyde. Cultures of aortic wall remnants are obtained 2 times during processing. Valves with culture-negative remnants are distributed in 0.2% buffered glutaraldehyde.

Before implantation, valves are removed from the glutaraldehyde solution and rinsed in sterile saline. Attached to each valve are 2 aortic wall remnants that may be cultured. Some hospitals do not routinely culture remnants at the time of implantation.

A cooperative investigation of the plant by the manufacturer, the U.S. Food and Drug Administration, and CDC revealed that for several years presumed mycobacteria have been intermittently cultured from tissue remnants in the plant. (Isolates were not definitely identified as mycobacteria until June 1976, when a consulting microbiologist identified some isolates as *M. avium-intracellulare*.) The

Table I. Summary—Cases of Specified Notifiable Diseases: United States*[Cumulative totals include revised and delayed reports through previous weeks]*

DISEASE	5th WEEK ENDING		MEDIAN 1972-1976	CUMULATIVE, FIRST 5 WEEKS		
	February 5, 1977	February 7, 1976		February 5, 1977	February 7, 1976	MEDIAN 1972-1976
Aseptic meningitis	26	20	30	181	189	189
Brucellosis	3	2	2	13	20	9
Chickenpox	5,548	5,226	—	24,577	22,669	—
Diphtheria	—	4	2	1	43	10
Encephalitis						
Primary	11	12	14	62	84	72
Post-Infectious	2	4	4	6	20	16
Hepatitis, Viral						
Type B	303	263	182	1,366	1,241	902
Type A	678	714	929	2,980	3,419	4,058
Type unspecified	180	180	—	828	865	—
Malaria	5	5	4	21	31	16
Measles (rubeola)	1,099	651	651	4,533	2,275	2,275
Meningococcal infections, total	32	34	27	188	144	144
Civilian	31	33	27	186	142	142
Military	1	1	—	2	2	4
Mumps	640	1,156	1,559	2,664	5,499	7,408
Pertussis	8	25	—	69	132	—
Rubella (German measles)	203	251	251	944	970	970
Tetanus	1	—	1	5	3	5
Tuberculosis	621	607	—	2,404	2,735	—
Tularemia	1	3	1	9	14	8
Typhoid fever	6	16	5	28	46	21
Typhus, tick-borne (Rky. Mt. spotted fever)	—	1	1	7	2	9
Venereal Diseases:						
Gonorrhea						
Civilian	17,840	19,093	—	93,657	97,844	—
Military	733	577	—	2,813	3,074	—
Syphilis, primary and secondary						
Civilian	395	504	—	2,207	2,580	—
Military	5	3	—	32	37	—
Rabies in animals	34	47	47	213	156	238

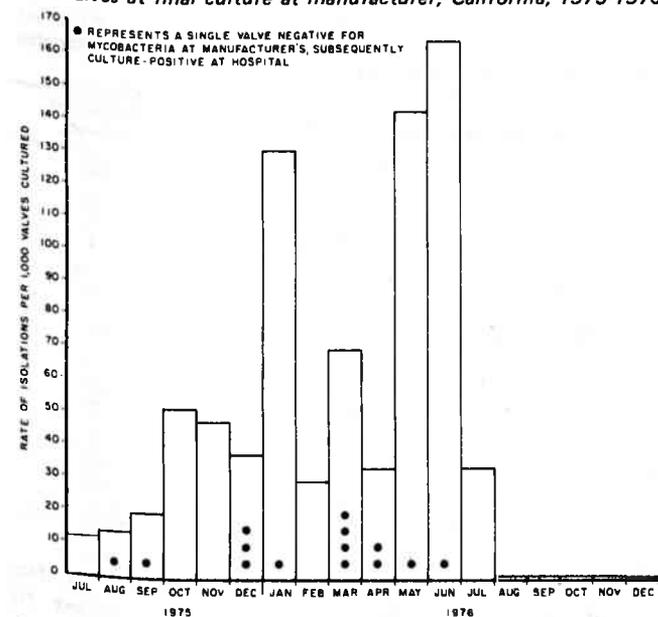
Table II. Notifiable Diseases of Low Frequency: United States

	CUM.		CUM.
Anthrax:	—	Poliomyelitis, total:	1
Botulism: Tox. 1	2	Paralytic:	1
Congenital rubella syndrome: N.C. 1	1	Psittacosis:	3
Leprosy: Calif. 1	9	Rabies in man:	—
Leptospirosis:	5	Trichinosis: N.J. 1	13
Plague:	—	Typhus, murine:	1

Mycobacteria - Continued

frequency of positive cultures increased substantially in late 1975 to mid-1976 (Figure 1). Since July 1976, the incidence of mycobacterial isolates has significantly decreased. The manufacturer now holds valves until cultures have been negative for 6 weeks (previously 2-4 weeks). No culture-positive valve is distributed. Investigation is continuing to determine the source of valve contamination with mycobacteria. Hancock Laboratories has voluntarily sent letters to cardiac surgeons and hospital personnel describing the problem and asking that valves processed from October 1975 through July 1976 be returned for exchange.

FIGURE 1. Rates of presumed mycobacteria isolates from porcine heart valves at final culture at manufacturer, California, 1975-1976



Reported by Hancock Laboratories Incorporated, Anaheim, California; JJ Marr, MD, St. Louis (Missouri) University School of Medicine; HD Donnell Jr, MD, State Epidemiologist, Missouri Dept of Health and Welfare; LL Maynes, RN, El Camino Hospital, Mountain View, California; I Krasnow, PhD, Long Beach, Veterans Administration Hospital; J Chin, MD, State Epidemiologist, California Dept of Health; RW Quenzer, MD, University of Colorado Medical Center, RF Waggoner, MS, SM(AAM), National Jewish Hospital, Denver; JA Curtin, MD, Washington Hospital Center District of Columbia; ME Levy, MD, State Epidemiologist, District of Columbia Community Health & Hospital Admin; CD Nutter, BS, National Institutes of Health, Bethesda, Maryland; K Lamprecht, Oklahoma City Veterans Administration Hospital; U.S. Food and Drug Administration; Mycobacteriology Br, Bur of Laboratories, Epidemiologic Investigations Laboratory Br, Hospital Infections Br, Bacterial Diseases Div, Bur of Epidemiology, CDC.

Editorial Note: Porcine prosthetic heart valves are used for aortic, mitral, and pulmonic valve replacement and for repair of various congenital heart defects. There is evidence that glutaraldehyde-treated porcine valves are almost non-

thrombogenic and remain hemodynamically functional for periods of more than 6 years (7). Use of these valves has increased substantially in the past few years, and many surgeons feel that they are the valves of choice for valve replacement procedures. The largest manufacturer of these valves for clinical use is Hancock Laboratories. In the past year an estimated 7,000 to 10,000 Hancock bioprostheses have been implanted.

Solutions of 0.2% and 1% glutaraldehyde are used during processing, storage, and distribution of valves. The manufacturer has found that these solutions do not sterilize all valves contaminated with mycobacteria; therefore, the manufacturer and hospitals must depend on valve cultures to assess sterility. All valves which were reported to CDC to have positive mycobacterial cultures were culture-negative at the plant, and all of these valves were processed before August 1976 (Figure 1). Why these valves were culture-negative in the plant is unknown, but it is possible that remnant testing is not fully adequate to assess sterility of valves. An alternate, but less likely, explanation is that contamination occurred in individual hospitals.

No human disease has been attributed to the use of these valves, and the true frequency of contamination of available valves is unknown. The frequency of contamination as reported by the manufacturer's quality-assurance program has significantly decreased since July 1976, and the manufacturer estimates that 80%-90% of valves processed before August 1976 have been implanted. However, there may be a potential risk of a patients's developing mycobacterial disease if a contaminated valve is implanted.

The risk of infection associated with the Hancock valve (and other glutaraldehyde-processed valves) as compared with the risks associated with the use of other types of valves, is presently unknown. When use of the valve is felt to be indicated, FDA and CDC believe the following minimal precautions should be implemented, although they do not assure sterility of the valve: (1) use valves processed after July 1976, and (2) culture a tissue remnant in thioglycollate broth medium at the time of operation using techniques described in the valve package insert. If this culture is positive, characterization of the organism, including antibiotic sensitivities, may be useful in the subsequent clinical management of the patient.

Patients who receive these valves should be carefully observed for any evidence of infection. Diagnostic cultures of blood or tissue should include at least the use of thioglycollate and trypticase soy broth media and should be held for at least 3 weeks. All isolates of mycobacteria species associated with these valves should be reported to the manufacturer, state health departments, FDA, and CDC.

Reference

1. Zudhi N: The porcine aortic valve bioprosthesis: A significant alternative. *Ann Thorac Surg* 21(6):573-575, 1976.

Follow-up on Respiratory Illness - Philadelphia

Two more isolations of the agent responsible for the respiratory outbreak in Philadelphia last July and August have been made. The same techniques described earlier (MMWR 26[2], 1977) were used to obtain the isolations from the lung tissues of 2 of 3 fatal cases. The new isolates have the following characteristics in common with the earlier 2 isolates: a) indirect fluorescent antibody staining of the organism in yolk sac smears with a known-positive convalescent

serum, b) morphology of the organism in yolk sac smears stained by fluorescent antibody and by Giménez stain, c) production of disease in guinea pigs, d) death pattern in embryos of hens' eggs inoculated in the yolk sac, e) negative cultures on routine bacteriologic medium. Further characterization is in progress.

Serum specimens have been tested from 117 of the 180 cases in the Philadelphia outbreak. Eighty had serologic evi-

dence of recent infection with the agent; 49 had seroconversions (increase in titer of at least 4-fold to 1:64 or higher), and 31 had high titers (1:128 or higher). In about half of the patients, the maximum titer has been 1:512 or greater. Seven cases with apparently well-timed serum specimens had no evidence of recent infection. Results of testing of the remaining 30 did not permit determination of whether or not there had been recent infection because of the timing of the specimens tested. Eleven persons with single days of exposure on July 21, 22, and 23 showed serologic evidence of recent infection as did 2 attendees at the Eucharistic Congress, suggesting that exposure occurred over a period of 2 weeks. Two Broad-Street pneumonias* and 2 Hotel A employees also showed evidence of recent infection but had not been included in the 180 cases.

In a continuing effort to define the level of antibody titers for the Philadelphia agent to be expected in patients with other diseases and in normal persons, convalescent sera from 95 pneumonia patients have been tested. Of these, 21 came from a recent outbreak of psittacosis in a turkey processing plant (MMWR 25[38], 1976); all 21 sera had characteristic rises in complement fixing antibody to psittacosis antigen. Against the agent causing the Philadelphia illness, none of the 21 pairs had changes of more than 2-fold. Two had titers of 1:64 in the convalescent specimen, but comparison with the acute specimens showed that this represented a decrease in titer of 2-fold in 1 case and an increase of 2-fold in the other. All the other titers were 1:32 or less.

The remaining 74 pneumonia sera examined had been submitted in recent months from various parts of the United States to CDC for viral diagnoses. The convalescent sera were first tested, and those with titers of 1:64 or greater were repeated with the acute specimen. All were negative except those from 1 Michigan patient who had a seroconversion from < 1:16 to > 1:512. His onset was August 19, 1976, and his pneumonia was severe; he had apparently not been out of the state during the possible incubation period.

Serum was also received from a patient who died of pneumonia in Indiana October 19, 1976. His onset was October 5, 1976. On the tenth day of illness the titer was 1:16, and in the post-mortem specimen it was 1:256. Epidemiological investigations are being carried out by personnel from the state health departments and the Bureau of Epidemiology, CDC.

Also studied were sera from patients with Pontiac fever — a designation referring to an explosive outbreak of acute febrile illness involving personnel of and visitors to a county health department in Pontiac, Michigan, in July 1968 (MMWR 17[34], 1968). There were 144 cases and no

*Cases of Broad-Street pneumonia represent disease clinically similar to Philadelphia respiratory disease that occurred in persons who did not attend the Convention, were within 1 block of Hotel A between July 1-August 18, but said they did not go into Hotel A during the epidemic period.

International Notes

SENEGAL

Smallpox — Change code to II > 6 mos. 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.

deaths. The typical disease was acute onset of fever, chills, and myalgia lasting 2-4 days with minor respiratory symptoms. The incubation period was 1-2 days, and pneumonia was not seen.

Sera, preserved in CDC's Serum Bank, were tested from 37 patients with typical disease. At least 2 sera per patient were included. The results (Table 1) show that of 37 patients, 32 had serologic changes indicating that their illness was caused by an agent antigenically similar to that causing the respiratory disease in Philadelphia. The maximum titer observed in the seroconversions and positives was 1:512 or greater in 8 of 32 patients, a somewhat lower ratio than that seen with patients with the Philadelphia disease.

TABLE 1. Sera of patients with Pontiac fever. Results with indirect fluorescent antibody stains of yolk sacs infected with agent isolated from patients with Philadelphia respiratory disease.

Interpretation of titers	Number of Patients
Seroconversions: > 4-fold	26
4-fold	5
Positive (\geq 128) without seroconversion	1
Negative	5
Total patients tested	37
Maximum titer observed with seroconversions and positives \geq 1024	3
512	5
256	10
128	9
64	5

Paired sera had also been collected in 1968 from control persons at another office of the health department. Of these, 10 pairs have been tested; all were negative. The highest titers seen with any of these 10 pairs was 1:32, and the changes in titer for any person were never more than 2-fold. As is standard practice, each serum associated with the Pontiac outbreak was tested as a coded unknown. Thus, the statistical possibility that these observations could have arisen from chance arrangement is small.

Thus it appears probable that Pontiac fever was caused by an agent antigenically related to that of the Philadelphia illness. The differences in clinical form and in incubation period may indicate that the agents of the 2 outbreaks are not identical. Attempts are being made to isolate the etiologic agent of Pontiac fever from materials that have been preserved at -70 C, so that the agent may be characterized and compared to the agent of the Philadelphia outbreak.

Reported by the Leprosy and Rickettsia Br, Respiratory Virology Br, Virology Div, and Serum Bank Section, Scientific Services Div, Bur of Laboratories; Special Pathogens Br, Bacterial Zoonoses Br, Bacterial Diseases Div, and Viral Diseases Div, Bur of Epidemiology, CDC.

Quarantine Measures

SWAZILAND

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.

Table III
Cases of Specified Notifiable Diseases: United States
Weeks Ending February 5, 1977 and February 7, 1976 - 5th 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	26	3	5,548	-	1	11	12	2	303	678	180	5	21
NEW ENGLAND	1	1	520	-	-	2	1	-	3	12	10	-	1
Maine	-	-	14	-	-	-	-	-	-	2	-	-	-
New Hampshire*	-	-	11	-	-	-	-	-	-	1	-	-	-
Vermont	-	-	13	-	-	-	-	-	-	-	-	-	-
Massachusetts	-	-	263	-	-	2	1	-	2	4	7	-	1
Rhode Island	1	-	100	-	-	-	-	-	1	-	-	-	-
Connecticut	-	1	119	-	-	-	-	-	-	5	3	-	-
MIDDLE ATLANTIC	-	-	442	-	-	2	-	-	60	61	29	-	6
Upstate New York	-	-	354	-	-	1	-	-	24	19	8	-	3
New York City	-	-	59	-	-	1	-	-	12	10	6	-	3
New Jersey	-	-	NN	-	-	-	-	-	23	29	15	-	-
Pennsylvania*	-	-	29	-	-	-	-	-	1	3	-	-	-
EAST NORTH CENTRAL ..	1	-	2,373	-	-	3	2	1	42	79	11	-	-
Ohio*	-	-	93	-	-	1	-	1	9	26	-	-	-
Indiana	1	-	147	-	-	-	-	-	5	-	3	-	-
Illinois	-	-	513	-	-	-	-	-	3	6	1	-	-
Michigan	-	-	1,051	-	-	2	1	-	23	40	6	-	-
Wisconsin	-	-	569	-	-	-	1	-	2	7	1	-	-
WEST NORTH CENTRAL ..	1	-	775	-	-	2	4	-	27	42	4	1	1
Minnesota	-	-	2	-	-	-	1	-	10	4	-	1	1
Iowa	-	-	377	-	-	-	-	-	4	4	-	-	-
Missouri*	1	-	6	-	-	2	3	-	9	22	4	-	-
North Dakota	-	-	17	-	-	-	-	-	-	2	-	-	-
South Dakota	-	-	30	-	-	-	-	-	-	-	-	-	-
Nebraska	-	-	12	-	-	-	-	-	2	3	-	-	-
Kansas	-	-	331	-	-	-	-	-	2	7	-	-	-
SOUTH ATLANTIC	6	-	301	-	-	2	1	1	32	126	25	1	4
Delaware*	-	-	5	-	-	-	-	-	-	-	-	-	-
Maryland	-	-	16	-	-	-	-	-	5	11	7	1	2
District of Columbia ..	-	-	1	-	-	1	-	-	-	-	-	-	-
Virginia	1	-	19	-	-	-	-	1	5	7	5	-	2
West Virginia	-	-	71	-	-	-	1	-	1	13	-	-	-
North Carolina	5	-	NN	-	-	-	-	-	6	6	1	-	-
South Carolina	-	-	14	-	-	-	-	-	-	4	-	-	-
Georgia*	-	-	-	-	-	-	-	-	-	25	-	-	-
Florida	-	-	175	-	-	1	-	-	15	60	12	-	-
EAST SOUTH CENTRAL ..	6	-	243	-	-	-	1	-	24	51	7	-	-
Kentucky*	1	-	25	-	-	-	-	-	8	21	6	-	-
Tennessee	2	-	NN	-	-	-	1	-	6	14	1	-	-
Alabama	3	-	197	-	-	-	-	-	10	2	-	-	-
Mississippi	-	-	21	-	-	-	-	-	-	14	-	-	-
WEST SOUTH CENTRAL ..	4	2	328	-	-	-	1	-	27	90	22	-	1
Arkansas*	-	-	2	-	-	-	-	-	3	11	1	-	-
Louisiana	-	-	NN	-	-	-	1	-	-	-	-	-	-
Oklahoma	-	-	35	-	-	-	-	-	3	13	6	-	-
Texas*	4	2	291	-	-	-	-	-	21	66	15	-	1
MOUNTAIN	-	-	278	-	-	-	-	-	12	60	11	1	4
Montana	-	-	14	-	-	-	-	-	-	2	3	-	-
Idaho	-	-	22	-	-	-	-	-	-	4	1	-	-
Wyoming	-	-	-	-	-	-	-	-	-	-	-	-	-
Colorado*	-	-	122	-	-	-	-	-	8	20	1	1	3
New Mexico	-	-	5	-	-	-	-	-	1	15	4	-	-
Arizona	-	-	NN	-	-	-	-	-	-	9	1	-	1
Utah	-	-	83	-	-	-	-	-	3	10	1	-	-
Nevada*	-	-	32	-	-	-	-	-	-	-	-	-	-
PACIFIC	7	-	288	-	1	-	2	-	76	157	61	2	4
Washington	3	-	260	-	-	-	-	-	4	4	2	-	-
Oregon	-	-	1	-	-	-	-	-	6	13	4	-	-
California*	4	-	-	-	-	-	2	-	63	84	54	-	2
Alaska	-	-	4	-	1	-	-	-	1	55	-	-	-
Hawaii	-	-	23	-	-	-	-	-	2	1	1	2	2
Guam*	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-
Puerto Rico	-	-	5	-	-	-	-	-	1	11	-	-	-
Virgin Islands	-	-	-	-	-	-	-	-	-	-	-	-	-

NA: Not available

NN: Not notifiable

*Delayed reports: Asep. Meng.: Ohio add 1, Guam add 1 (1977); Brucellosis: Mo. add 1 (1977); Chickenpox: Pa. add 1 (1976), N. Hamp. add 10, Dela. add 17, Ga. add 14, Calif. add 4, Guam add 14 (1977); Enceph.: Pa. add 2 (1976); Hep. B: Pa. add 9, Colo. add 1 (1976), N. Hamp. add 1, Mo. add 1, Ky. add 36, Nev. add 1 (1977); Hep. A: Pa. add 13, Ga. add 47, Ark. add 3, Tex. add 2, Colo add 4 (1976), N. Hamp. delete 1, Ga. add 13, Ky. add 84, Guam add 2 (1977); Hep. unsp.: Pa. add 1, Colo. add 1 (1976), Mo. delete 1, Ky. add 21, Guam add 2 (1977).

Table III-Continued
Cases of Specified Notifiable Diseases: United States
Weeks Ending February 5, 1977 and February 7, 1976 - 5th Week

REPORTING AREA	MEASLES (Rubeola)			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	1,099	4,533	2,275	32	188	144	640	2,664	8	203	944	5
NEW ENGLAND	33	100	12	2	9	9	13	122	-	9	56	-
Maine*	-	1	-	-	1	-	-	1	-	-	1	-
New Hampshire*	11	46	-	-	1	-	-	11	-	-	1	-
Vermont	7	34	-	-	-	-	2	2	-	-	-	-
Massachusetts	12	12	2	1	2	3	-	10	-	3	33	-
Rhode Island	-	-	7	-	-	2	2	10	-	4	10	-
Connecticut	3	7	3	1	5	4	9	88	-	2	11	-
MIDDLE ATLANTIC	96	608	261	5	33	14	22	163	1	26	124	-
Upstate New York	23	68	140	2	10	4	6	30	1	15	34	-
New York City	6	26	12	1	8	4	14	73	-	6	21	-
New Jersey	-	11	16	1	12	2	2	45	-	-	47	-
Pennsylvania	67	503	93	1	3	4	-	15	-	5	22	-
EAST NORTH CENTRAL	269	1,405	790	3	20	15	281	886	1	59	352	-
Ohio	3	55	2	1	12	4	3	124	-	11	81	-
Indiana	138	700	103	-	-	-	6	42	-	4	118	-
Illinois	30	132	51	1	2	1	41	94	-	14	31	-
Michigan	12	101	178	1	4	6	102	284	1	20	74	-
Wisconsin	86	417	456	-	2	4	129	342	-	10	48	-
WEST NORTH CENTRAL	281	1,136	33	2	7	12	137	711	-	9	68	1
Minnesota	89	152	1	-	-	2	3	3	-	1	2	-
Iowa*	123	664	7	-	-	4	108	383	-	2	38	-
Missouri*	15	80	-	2	6	3	14	111	-	1	6	1
North Dakota	-	2	1	-	-	-	-	2	-	-	-	-
South Dakota	-	4	-	-	-	1	-	1	-	-	-	-
Nebraska	-	3	19	-	-	-	-	1	-	1	1	-
Kansas	54	231	5	-	1	2	12	210	-	4	21	-
SOUTH ATLANTIC	35	69	260	9	37	32	23	98	-	4	12	1
Delaware*	-	1	15	-	1	-	5	15	-	-	-	-
Maryland	10	10	87	1	4	1	1	8	-	-	-	-
District of Columbia*	-	-	1	-	-	-	-	2	-	-	-	-
Virginia	5	24	2	-	3	-	2	21	-	-	1	1
West Virginia	2	16	43	-	4	2	3	26	-	-	4	-
North Carolina	-	-	-	5	10	8	-	3	-	-	3	-
South Carolina	-	-	-	-	4	6	-	2	-	-	2	-
Georgia*	18	18	-	2	4	-	-	1	-	-	-	-
Florida	-	-	112	1	7	15	12	20	-	2	2	-
EAST SOUTH CENTRAL	33	97	111	4	21	11	59	201	-	29	114	1
Kentucky	31	53	106	1	10	2	-	19	-	1	6	1
Tennessee	2	44	1	1	8	5	22	128	-	27	106	-
Alabama	-	-	-	2	3	3	37	54	-	1	2	-
Mississippi	-	-	4	-	-	1	-	-	-	-	-	-
WEST SOUTH CENTRAL	56	156	175	3	32	24	45	234	3	8	28	1
Arkansas	-	1	-	1	1	-	-	-	2	-	-	-
Louisiana	4	5	5	-	16	1	-	12	-	1	1	-
Oklahoma	6	13	155	-	-	8	21	114	-	3	7	-
Texas	46	137	15	2	15	15	24	108	1	4	20	1
MOUNTAIN	28	205	489	-	4	4	19	81	1	4	30	-
Montana	16	130	17	-	-	1	-	-	-	-	3	-
Idaho	4	15	112	-	1	-	10	42	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-	-	1	-
Colorado	-	32	8	-	1	-	5	13	-	-	5	-
New Mexico	-	-	2	-	-	-	1	3	1	1	1	-
Arizona*	5	21	8	-	2	2	-	-	-	-	-	-
Utah	-	2	341	-	-	1	3	22	-	3	20	-
Nevada	3	5	1	-	-	-	-	1	-	-	-	-
PACIFIC	268	757	144	4	25	23	41	168	2	55	160	1
Washington	29	86	2	3	5	5	13	40	-	21	51	-
Oregon	1	7	-	-	1	1	13	26	-	3	7	-
California	238	616	140	1	14	17	13	88	2	29	100	1
Alaska	-	48	-	-	4	-	-	10	-	-	-	-
Hawaii	-	-	2	-	1	-	2	4	-	2	2	-
Guam	NA	-	4	-	-	1	NA	-	NA	NA	-	-
Puerto Rico	10	42	7	-	-	1	9	51	-	-	2	-
Virgin Islands*	-	-	-	-	-	-	4	4	-	-	-	-

NA: Not available

*Delayed reports: Measles: Mo. delete 3 (1976) Maine delete 1, N. Hamp. add 7, Iowa delete 2, Mo. delete 1, Dela. delete 1, Ariz. add 2 (1977); Men. Inf.: Ga. add 4 (1976), Ga. add 3, La. delete 2, Ariz. delete 1 (1977); Mumps: Dela. add 7, Ga. add 1, V.I. add 14 (1977); Pertussis: D.C. delete 1 (1977).

Table III-Continued
Cases of Specified Notifiable Diseases: United States
Weeks Ending February 5, 1977 and February 7, 1976 - 5th 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	621	2,404	9	6	28	-	7	17,840	93,657	97,844	395	2,207	2,580	213
NEW ENGLAND	18	80	-	1	2	-	-	439	2,376	2,732	14	72	74	1
Maine	3	6	-	-	-	-	-	35	178	233	-	2	5	1
New Hampshire*	1	4	-	-	-	-	-	13	86	52	-	-	-	-
Vermont	-	3	-	-	-	-	-	15	56	61	-	1	1	-
Massachusetts	9	39	-	-	1	-	-	176	1,032	1,284	11	52	49	-
Rhode Island	3	8	-	-	-	-	-	42	141	189	-	-	2	-
Connecticut	2	20	-	1	1	-	-	158	883	913	3	17	17	-
MIDDLE ATLANTIC	85	309	-	1	7	-	-	2,290	11,521	9,183	56	317	430	3
Upstate New York*	19	37	-	-	-	-	-	239	992	1,237	12	24	26	3
New York City	24	104	-	-	6	-	-	1,024	6,408	3,798	32	201	291	-
New Jersey	26	98	-	1	1	-	-	523	1,540	1,636	2	43	55	-
Pennsylvania*	16	70	-	-	-	-	-	504	2,581	2,512	10	49	58	-
EAST NORTH CENTRAL	93	361	2	-	4	-	-	2,235	13,321	15,858	39	240	229	11
Ohio*	37	81	1	-	1	-	-	619	3,840	4,344	3	61	50	-
Indiana	7	35	-	-	-	-	-	175	705	1,151	-	5	7	1
Illinois	28	132	-	-	1	-	-	635	4,627	5,797	32	142	127	-
Michigan	15	93	-	-	2	-	-	590	2,987	3,087	3	23	33	-
Wisconsin	6	20	1	-	-	-	-	216	1,162	1,479	1	9	12	10
WEST NORTH CENTRAL	14	83	1	-	2	-	2	928	5,149	4,960	7	43	56	45
Minnesota	2	16	-	-	1	-	-	188	853	1,038	4	15	16	24
Iowa	1	11	-	-	-	-	-	85	589	655	1	4	4	10
Missouri	11	41	1	-	1	-	2	443	2,322	1,852	2	16	28	2
North Dakota	-	1	-	-	-	-	-	12	71	73	-	-	-	7
South Dakota	-	2	-	-	-	-	-	27	143	166	-	-	-	-
Nebraska	-	1	-	-	-	-	-	90	408	418	-	1	4	-
Kansas	-	11	-	-	-	-	-	83	763	758	-	7	4	2
SOUTH ATLANTIC	130	638	4	-	4	-	-	3,904	21,271	22,777	87	632	766	25
Delaware*	4	4	-	-	-	-	-	51	333	327	4	6	8	-
Maryland	21	92	-	-	-	-	-	430	2,452	3,279	6	47	63	-
District of Columbia	7	24	-	-	-	-	-	201	1,218	1,271	17	75	66	-
Virginia	5	83	-	-	1	-	-	516	2,359	2,726	12	54	67	1
West Virginia	7	23	-	-	-	-	-	66	316	303	-	-	2	-
North Carolina*	24	111	-	-	-	-	-	579	3,123	3,495	11	95	134	-
South Carolina	16	61	2	-	-	-	-	681	2,164	2,096	3	32	47	-
Georgia*	11	72	2	-	-	-	-	565	4,041	4,098	-	96	88	23
Florida	35	168	-	-	3	-	-	815	5,265	5,182	34	227	291	1
EAST SOUTH CENTRAL	71	213	-	-	-	-	3	1,879	7,726	8,570	34	88	97	1
Kentucky	20	41	-	-	-	-	1	263	1,097	1,088	3	9	15	-
Tennessee*	26	83	-	-	-	-	2	691	3,306	3,408	10	30	46	1
Alabama	14	62	-	-	-	-	-	572	1,903	2,234	5	15	18	-
Mississippi	11	27	-	-	-	-	-	353	1,420	1,840	16	34	18	-
WEST SOUTH CENTRAL	76	237	1	-	-	-	2	2,142	12,930	15,463	48	294	285	88
Arkansas	2	18	-	-	-	-	-	216	1,052	1,356	4	7	9	5
Louisiana*	12	67	-	-	-	-	-	455	1,669	2,222	3	60	64	-
Oklahoma	13	27	-	-	-	-	1	228	1,031	1,347	1	10	14	24
Texas	49	125	1	-	-	-	1	1,243	9,178	10,538	40	217	198	59
MOUNTAIN	18	51	1	2	2	-	-	818	3,764	3,848	5	48	80	3
Montana*	1	1	1	-	-	-	-	61	227	182	-	-	1	3
Idaho	3	6	-	-	-	-	-	47	200	176	-	2	-	-
Wyoming	-	3	-	-	-	-	-	46	119	85	2	5	4	-
Colorado	-	9	-	1	1	-	-	201	952	926	3	18	32	-
New Mexico	2	4	-	-	-	-	-	165	488	861	-	8	17	-
Arizona	12	27	-	-	-	-	-	163	1,067	1,054	-	12	19	-
Utah	-	-	-	1	1	-	-	37	189	263	-	2	1	-
Nevada	-	1	-	-	-	-	-	98	522	301	-	1	6	-
PACIFIC	116	432	-	2	7	-	-	3,205	15,599	14,453	105	473	563	36
Washington*	-	9	-	-	-	-	-	330	1,214	1,265	-	-	15	-
Oregon	3	16	-	-	-	-	-	188	1,141	1,081	1	17	14	-
California	98	334	-	2	7	-	-	2,562	12,509	11,386	99	447	525	30
Alaska*	-	-	-	-	-	-	-	54	425	406	-	1	-	6
Hawaii	15	73	-	-	-	-	-	71	310	315	5	8	9	-
Guam*	NA	-	-	NA	-	NA	-	NA	-	51	NA	-	-	-
Puerto Rico	17	44	-	-	-	-	-	84	291	236	13	66	41	1
Virgin Islands*	-	-	-	-	-	-	-	2	14	33	-	-	14	-

NA: Not available

*Delayed reports: TB: Ohio delete 12, N. Car. delete 8, Ga. add 7 Mont. add 1 (1976), Dela. add 1, N. Car. delete 1, La. delete 1, Alaska add 8, Guam add 5 (1977); Typhoid fever: Pa. delete 1 (1976); GC: La. delete 2, Wash add 106 mil., Guam add 21 civ., V.I. add 3 civ. (1977); Syphilis: Ups. N.Y. add 3 (1976), N. Hamp. add 2 mil., Pa. delete 1 civ., La. delete 1 civ. Wash add 10 civ. (1977); An. rabies: Ga. add 4 (1976), Tenn. add 1 (1977).

Table IV
Deaths in 121 United States Cities*
Week Ending February 5, 1977 - 5th 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	686	443	171	35	19	38	SOUTH ATLANTIC	1,294	786	343	79	50	41
Boston, Mass.	185	117	47	8	5	10	Atlanta, Ga.	172	102	41	13	9	6
Bridgeport, Conn.	45	31	11	1	1	1	Baltimore, Md.	220	125	71	12	6	2
Cambridge, Mass.	35	27	5	3	-	6	Charlotte, N. C.	52	31	9	5	4	1
Fall River, Mass.	30	24	6	-	-	-	Jacksonville, Fla.	119	79	26	5	6	4
Hartford, Conn.	60	29	19	5	4	2	Miami, Fla.	120	79	35	5	-	3
Lowell, Mass.	25	14	9	2	-	1	Norfolk, Va.	85	45	24	5	9	3
Lynn, Mass.	26	19	6	1	-	-	Richmond, Va.	83	45	24	7	5	6
New Bedford, Mass.	32	24	6	1	1	1	Savannah, Ga.	47	29	16	1	1	5
New Haven, Conn.	47	29	10	5	2	-	St. Petersburg, Fla.	87	75	8	3	-	2
Providence, R.I.	70	40	19	2	4	8	Tampa, Fla.	99	69	19	6	3	7
Somerville, Mass.	12	8	3	1	-	-	Washington, D. C.	153	74	55	14	5	2
Springfield, Mass.	43	27	12	2	2	3	Wilmington, Del.	57	33	15	3	2	-
Waterbury, Conn.	34	26	6	2	-	4	EAST SOUTH CENTRAL	749	432	200	43	41	40
Worcester, Mass.	42	28	12	2	-	2	Birmingham, Ala.	137	69	44	11	7	3
MIDDLE ATLANTIC	2,919	1,860	721	171	93	139	Chattanooga, Tenn.	76	44	19	8	-	11
Albany, N. Y.	39	17	10	6	4	2	Knoxville, Tenn.	64	44	15	1	1	-
Allentown, Pa.	27	19	6	2	-	3	Louisville, Ky.	107	73	23	3	7	6
† Buffalo, N. Y.	123	74	34	5	5	9	Memphis, Tenn.	167	90	46	8	13	4
Camden, N. J.	42	29	11	-	1	1	Mobile, Ala.	56	29	14	6	5	1
Elizabeth, N. J.	33	22	11	-	-	2	Montgomery, Ala.	50	27	14	1	4	3
Erie, Pa.	28	20	5	1	-	1	Nashville, Tenn.	92	56	25	5	4	12
Jersey City, N. J.	31	19	7	2	2	3	WEST SOUTH CENTRAL	1,236	709	311	89	67	47
Newark, N. J.	70	32	19	8	7	2	Austin, Tex.	48	30	8	5	3	2
New York City, N. Y.	1,529	1,000	348	97	51	51	Baton Rouge, La.	35	23	3	2	5	1
Peterson, N. J.	39	21	11	3	1	4	Corpus Christi, Tex.	48	24	11	2	8	1
Philadelphia, Pa.	393	235	119	19	10	28	Dallas, Tex.	163	91	39	15	8	2
Pittsburgh, Pa.	191	113	62	5	5	9	El Paso, Tex.	52	25	13	5	4	6
Reading, Pa.	33	24	7	1	1	-	Fort Worth, Tex.	70	50	16	2	-	1
Rochester, N. Y.	127	85	25	7	5	15	Houston, Tex.	287	133	93	29	15	2
Schenectady, N. Y.	27	16	6	4	-	1	Little Rock, Ark.	67	37	18	3	5	6
Scranton, Pa.	48	32	15	1	-	-	New Orleans, La.	187	103	64	10	6	-
Syracuse, N. Y.	64	47	10	5	1	-	San Antonio, Tex.	131	89	27	6	3	10
Trenton, N. J.	23	11	8	4	-	2	Shreveport, La.	52	36	9	5	2	5
Utica, N. Y.	19	15	3	1	-	1	Tulsa, Okla.	96	68	10	5	8	12
Yonkers, N. Y.	33	29	4	-	-	5	MOUNTAIN	493	289	133	37	19	26
EAST NORTH CENTRAL	2,488	1,484	693	136	83	65	Albuquerque, N. Mex.	65	38	17	8	1	6
Akron, Ohio	84	58	18	2	3	-	Colorado Springs, Colo.	34	23	7	2	1	3
Canton, Ohio	51	33	13	2	2	-	Denver, Colo.	96	58	29	6	1	5
Chicago, Ill.	619	333	192	43	26	13	Las Vegas, Nev.	20	12	6	2	-	3
Cincinnati, Ohio	190	119	59	6	5	5	Ogden, Utah	15	7	5	1	-	2
Cleveland, Ohio	239	130	79	15	6	2	Phoenix, Ariz.	123	70	36	6	7	1
Columbus, Ohio	92	54	26	5	4	3	Pueblo, Colo.	20	11	5	2	1	3
Dayton, Ohio	118	70	37	3	5	6	Salt Lake City, Utah	46	26	10	4	4	2
Detroit, Mich.	283	169	71	27	4	8	Tucson, Ariz.	74	44	18	6	4	1
Evansville, Ind.	37	27	5	2	1	-	PACIFIC	1,813	1,183	404	110	63	36
Fort Wayne, Ind.	84	54	19	2	2	2	Berkeley, Calif.	12	8	3	1	-	-
Gary, Ind.	21	12	7	1	1	2	Fresno, Calif.	56	34	14	5	2	1
Grand Rapids, Mich.	42	31	10	1	-	3	Glendale, Calif.	34	24	5	3	-	-
Indianapolis, Ind.	167	102	34	12	11	2	Honolulu, Hawaii	60	35	18	3	2	4
Madison, Wis.	21	14	5	-	-	3	Long Beach, Calif.	94	68	19	3	1	-
Milwaukee, Wis.	134	89	33	4	4	3	Los Angeles, Calif.	658	434	144	45	15	16
Peoria, Ill.	83	48	22	3	4	2	Oakland, Calif.	67	39	13	5	8	-
Rockford, Ill.	24	13	9	-	-	8	Pasadena, Calif.	37	30	6	-	1	-
South Bend, Ind.	44	30	7	3	3	3	Portland, Ore.	121	77	23	5	10	3
Toledo, Ohio	95	59	29	4	1	-	Sacramento, Calif.	74	50	13	3	7	3
Youngstown, Ohio	60	39	18	1	1	-	San Diego, Calif.	125	81	30	5	4	-
WEST NORTH CENTRAL	778	519	171	44	31	27	San Francisco, Calif.	168	98	48	16	4	-
Des Moines, Iowa	64	48	10	3	1	4	San Jose, Calif.	70	42	18	5	2	1
Duluth, Minn.	30	22	4	2	1	3	Seattle, Wash.	146	99	35	4	4	3
Kansas City, Kans.	38	21	10	5	1	-	Spokane, Wash.	47	37	3	3	2	5
Kansas City, Mo.	121	85	28	3	3	5	Tacoma, Wash.	44	27	12	4	1	-
Lincoln, Neb.	30	24	4	-	-	1	TOTAL	12,456	7,705	3,147	744	466	459
Minneapolis, Minn.	102	64	20	7	10	3	Expected Number	12,766	7,876	3,280	780	410	545
Omaha, Neb.	101	59	29	8	4	1							
St. Louis, Mo.	169	111	38	12	6	4							
St. Paul, Minn.	71	51	14	2	3	-							
Wichita, Kans.	52	34	14	2	2	6							

*By place of occurrence and week of filing certificate. Excludes fetal deaths. † Estimate based on average percent of divisional total.

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Current Trends

Surveillance of Childhood Lead Poisoning — United States

During the transitional quarter of fiscal year 1976 (July 1, 1976-September 30, 1976) 60 childhood lead poisoning prevention programs reported screening 102,271 high-risk children (Table 2). By comparison 98,328 children were screened by 67 programs during the first quarter (July 1, 1975-September 30, 1975). Of the children screened, 18,933 required pediatric management; of these, 3,630 were in Classes III and IV.* Chelation therapy was administered to 1,260 children. Over the past 5 quarters there has been a steady increase in the proportion of children found to be in Class IV — the category which indicates "extremely

elevated" blood levels (≥ 80 mg/100ml by blood lead test, ≥ 190 mg/100 ml by the erythrocyte protoporphyrin [EP] test). The number of children in this category ranged from 5% in the first quarter to 10.1% in the transitional quarter.

The ratio of dwelling units with the environmental hazards reduced to dwelling units found with lead has remained relatively unchanged over the past 5 quarters.

Reported by the Environmental Health Services Div, Bur of State Services, CDC.

*Lead Poisoning Categories in children are defined in MMWR 25(9): 66, 1975.

TABLE 2. Results of screening in childhood lead poisoning control projects — United States Transitional Quarter of Fiscal Year 1976 (July 1, 1976 to September 30, 1976)

Projects	Screened	NUMBER OF CHILDREN				NUMBER OF DWELLINGS			
		Requiring Pediatric Management		Receiving Pediatric Management		Inspected	Found with Lead	Reduced	
		Total	With Confirmed Undue Lead Absorption ¹	Total	Chelation Therapy				
		Class II	Classes III & IV						
Augusta, Me.	424	20	17	4	3	1	32	30	29
Boston, Mass.	7,966	1,172	207	305	31	5	292	279	248
Sai River, Mass.	602	1,000	430	1,000	445	1	437	430	430
Lowell, Mass.	866	1,000	1	18	33	6	51	55	438
Lynn, Mass.	1,086	3,422	127	48	77	23	173	855	108
New Haven, Conn.	1,086	4,222	127	48	77	23	173	855	108
Portland, Me.	892	4,111	433	146	46	1	137	104	100
Stamford, Conn.	892	4,111	433	146	46	1	137	104	100
Waterbury, Conn.	892	4,111	433	146	46	1	137	104	100
Worcester, Mass.	892	4,111	433	146	46	1	137	104	100
REGION I TOTAL	14,482	21,330	3,887	1,470	3,045	1,260	1,025	4,790	4,718
CUMULATIVE FY 76	66,530	81,331	3,342	1,856	14,045	502	6,787	4,980	4,503
Albany, N.Y.	325	333	29	11	165	15	28	15	13
Camden, N.J.	1,426	1,044	38	10	33	1	11	37	74
Erie Co. N.Y.	1,739	1,464	116	6	11	1	53	37	44
Hoboken, N.J.	1,426	1,044	38	10	33	1	11	37	74
Monroe Co. N.Y.	18	1,426	116	6	11	1	53	37	44
New York City	18	1,426	116	6	11	1	53	37	44
Newark, N.J.	1,075	1,075	1,075	70	70	0	116	6	11
Onondaga Co. N.Y.	1,075	1,075	1,075	70	70	0	116	6	11
Pateron N.J.	417	417	417	21	21	0	148	18	18
Plainfield, N.J.	233	233	233	11	11	0	35	10	10
Rensselaer, N.Y.	1,075	1,075	1,075	70	70	0	116	6	11
Westchester, N.Y.	1,075	1,075	1,075	70	70	0	116	6	11
REGION II TOTAL	136,393	21,378	10,864	3,628	37,474	1,040	1,026	3,867	2,520
CUMULATIVE FY 76	136,393	21,378	10,864	3,628	37,474	1,040	1,026	3,867	2,520
Baltimore, Md.	5,794	306	146	106	68	59	124	100	52
Chester, Pa.	776	67	22	20	14	1	72	56	32
Delaware State	576	222	20	27	14	1	81	69	39
Norfolk, Va.	1,786	1,786	1,786	27	27	0	103	84	84
Philadelphia, Pa.	2,700	3,325	133	133	16	1	103	484	502
Richmond, Va.	1,664	867	87	28	16	1	114	103	84
Washington, D.C.	3,806	867	107	42	1	1	103	103	63
Wikes-Barré, Pa.	17,528	17,528	78	44	4	4	174	5	84
REGION III TOTAL	17,528	2,863	78	44	4	4	174	5	84
CUMULATIVE FY 76	72,011	12,863	3,751	1,912	18,589	763	12,647	5,836	6,488
Georgia State	1,148	85	45	40	4	18	87	57	34
Louisville, Ky.	902	211	10	10	0	0	89	11	41
Memphis, Tenn.	826	1,000	0	6	6	0	69	20	24
Mobile, Ala.	1,097	1,097	1,097	61	61	0	332	43	37
South Carolina State	4,700	4,700	4,700	136	136	0	679	2,887	2,880
REGION IV TOTAL	4,700	3,912	1,052	136	2,927	303	2,879	1,937	1,068
CUMULATIVE FY 76	25,488	3,912	1,052	136	11,257	303	2,879	1,937	1,068
Akron, Ohio	6	4	4	—	0	0	22	22	16
Chicago, Ill.	12,952	1,360	984	371	3,377	352	1,006	632	465
Cincinnati, Ohio	4,149	1,049	104	103	480	0	64	365	366
Cleveland, Ohio	4,149	857	194	103	444	0	100	385	188
Columbus, Ohio	1,541	563	285	150	322	15	393	188	271
Detroit, Mich.	2,473	2,081	443	21	66	1	393	385	271
Gary, Ind.	321	203	4	17	5	1	133	30	13
Milwaukee, Wisc.	628	1,000	0	28	75	1	43	50	44
Peoria, Ill.	1,02	1,02	1,02	4	4	0	6	6	6
Rockford, Ill.	377	30	20	28	37	10	40	33	38
St. Paul, Minn.	1,02	1,02	1,02	4	4	0	6	6	6
Toledo, Ohio	377	30	20	28	37	10	40	33	38
Wayne Co. Mich.	2,000	2,000	2,000	28	28	0	44	1	1
Wisconsin State	25,544	3,624	1,777	2,572	6,688	1,444	1,968	1,333	1,088
REGION V TOTAL	25,544	11,821	6,554	2,572	27,134	1,958	9,591	5,714	4,166
CUMULATIVE FY 76	124,686	11,821	6,554	2,572	27,134	1,958	9,591	5,714	4,166
Arkansas State	1,004	85	44	41	28	0	33	25	6
Houston, Texas	3,325	1,000	20	20	0	0	28	25	6
New Orleans, La.	6,123	1,000	190	190	0	0	50	4	34
REGION VI TOTAL	6,123	2,000	331	331	28	0	131	74	344
CUMULATIVE FY 76	41,207	2,000	331	331	5,128	100	1,896	791	358
Des Moines, Iowa	716	20	12	0	214	15	2,124	532	239
Kansas City, Mo.	1,014	50	16	25	111	4	30	26	15
Kansas City-Wyandotte	1,295	18	17	3	11	1	20	16	10
Springfield, Mo.	1,295	18	17	3	11	1	20	16	10
St. Louis, Mo.	2,268	2,268	2,268	1,171	1,171	153	1,284	1,000	456
REGION VII TOTAL	27,849	2,802	1,666	1,717	13,282	174	10,257	4,915	2,720
CUMULATIVE FY 76	27,849	2,802	1,666	1,717	13,282	174	10,257	4,915	2,720
Alameda Co. Calif.	377	142	16	30	26	3	43	32	6
Contra Costa Co. Calif.	290	233	6	6	0	0	30	23	23
Los Angeles, Calif.	614	1,000	57	57	100	0	60	44	34
REGION VIII TOTAL	1,281	1,000	79	93	126	3	103	79	63
CUMULATIVE FY 76	8,259	1,000	79	93	126	3	103	79	63
U.S. TOTALS	102,271	18,933	3,630	1,360	12,816	1,260	8,447	28,430	22,188
CUMULATIVE FY 76	806,463	89,131	30,247	13,604	124,805	5,276	50,276	28,333	22,486

¹ Class II and Classes III & IV defined in CDC Statement, Increased Lead Absorption and Lead Poisoning in Young Children, March 1975.

* Estimated

Current Trends

Influenza — United States

Outbreaks of confirmed influenza B in schools in 1977 have now been reported from Vermont, Connecticut, New York, New Jersey, Pennsylvania, Michigan, Mississippi, Iowa, North Carolina, South Carolina, Tennessee, Georgia, Louisiana, Texas, and Colorado. Similar outbreaks, without laboratory confirmation, have been reported from Alabama, Arkansas, and Delaware. Disease activity is presently most pronounced in the Middle Atlantic, Southeastern, and Gulf States.

The Dade County (Florida) Health Department reported an outbreak of A/Victoria influenza which began January 18 and affected 59 of 176 residents and 15 of 100 staff members of a local nursing home. Twenty-two patients were hospitalized, and 5 deaths occurred. The Florida Health Department Virology Laboratory isolated 4 A/Victoria/3/75-like viruses from ill patients. Among patients* the attack rate in recipients of bivalent vaccines was 7%

*A case was defined as a person with febrile upper respiratory illness in the period January 18-February 4, 1977.

(3/41), while the rate in nonvaccinated patients was 41% (56/135) (vaccine efficacy = 83%). There is presently no other indication of significant influenza activity in the Miami area.

This is the first reported outbreak of A/Victoria influenza in the United States this season. During the past 2 months, only 4 isolates of A/Victoria-like virus from sporadic cases have been made in this country.

Figures 2 and 3 show pneumonia and influenza deaths and deaths due to all causes for 121 U.S. cities through February 5, 1977. They indicate that there is no excess mortality due to pneumonia and influenza in the United States.

Reported by R Morgan, MD, MPH, Dade County (Fla) Health Dept; E Buff, Virology Laboratory, EWP Smith, MD, Acting State Epidemiologist, Florida Dept of Health and Rehabilitative Services; State Epidemiologists from Alabama, Arkansas, Connecticut, Delaware, Georgia, Iowa, Mississippi, South Carolina, and Vermont; National Influenza Immunization Program; Respiratory Virology Br, Virology Div, Bur of Laboratories, Field Services Div, Viral Diseases Div, Bur of Epidemiology, CDC.

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

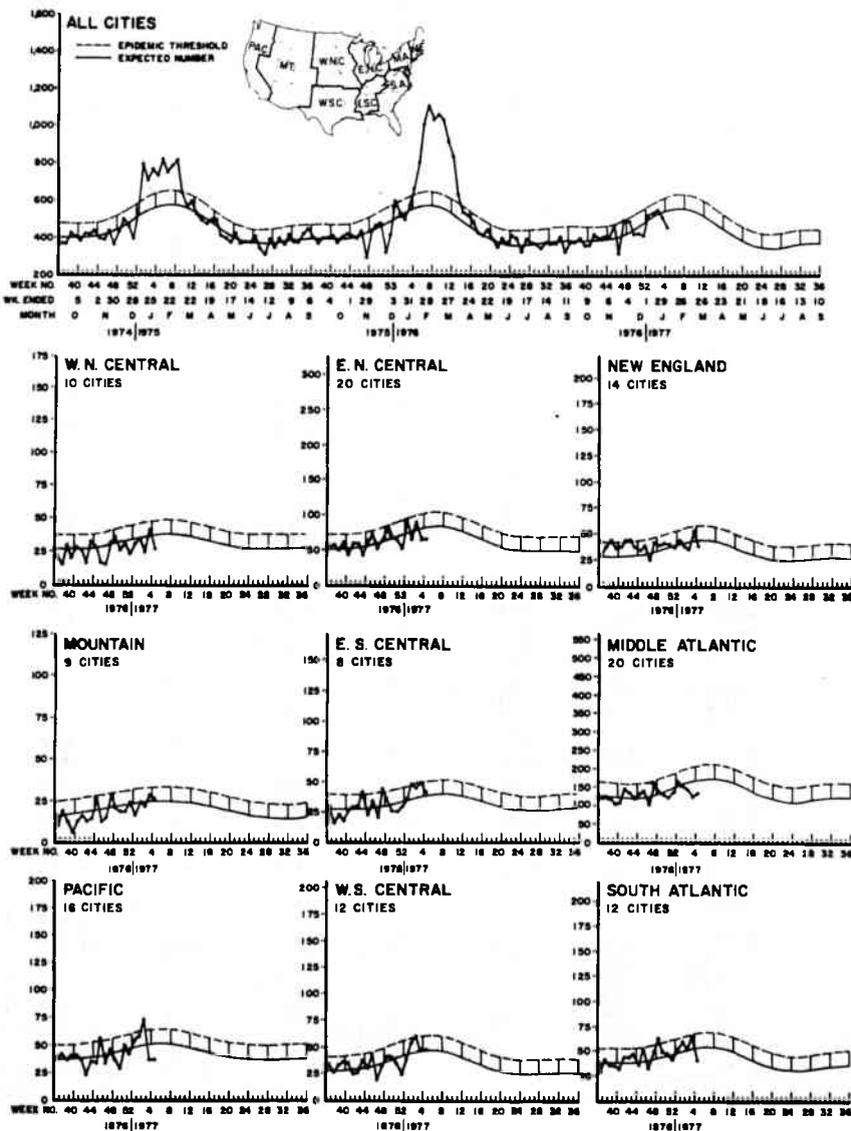
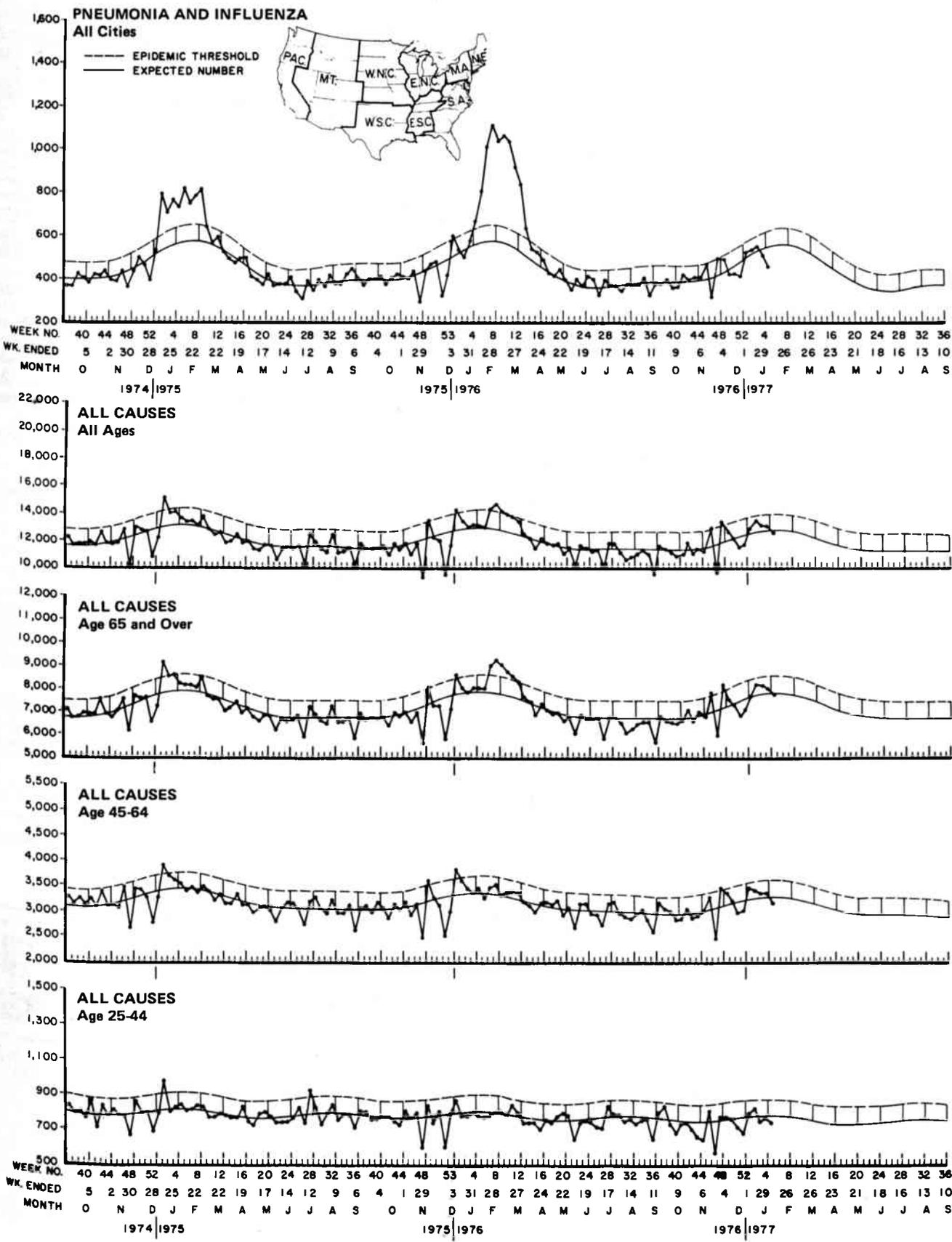


FIGURE 3. Mortality in 121 United States cities



Current Trends**Follow-up on Guillain-Barré Syndrome — United States**

Fifty states, the District of Columbia, and 1 United States territory have reported a total of 685 cases of Guillain-Barré syndrome (GBS) to CDC in the period October 1, 1976-February 3, 1977. There have been 354 cases in influenza vaccine recipients (12 of whom received a non-A/New Jersey influenza vaccine) and 314 cases in non-recipients. Seven additional patients received vaccine after their onset of GBS. The vaccine status for 10 cases is unknown. Eighteen states have reported a total of 28 deaths for an overall case fatality ratio of 4.0%. Fourteen of these were in influenza vaccine recipients and 13 in persons with no history of vaccination. In 1 case vaccination status is unknown.

GBS attack rates by 1-week periods after vaccination for 22 states for the period October 6-December 21, 1976, are shown in Table 3. The highest attack rates observed were during weeks 2 through 4 after vaccination.

It should be noted that the attack rates of GBS in Table 3 are for recipients of vaccine containing either A/New Jersey alone or A/New Jersey and A/Victoria components; these recipients were from the 22 states from which adequate vaccine history and vaccine distribution data are available. The rates do not include the 8 GBS patients who received B/Hong Kong vaccine alone. Adequate vaccine

distribution figures are not available for the influenza B vaccine; hence rates of GBS for recipients of that vaccine cannot be accurately determined. However, the possibility of an association between influenza B vaccine and GBS exists and should be known both to individuals to be immunized and to physicians.

TABLE 3. Guillain-Barré syndrome attack rate by 1-week periods after vaccination, 22 States*, October 6-December 21, 1976

Week — Period After Vaccination	Vaccinated Cases	Attack Rate**
1	15	.94
2	32	2.09
3	45	3.12
4	19	1.54
5	8	.74
6	3	.35
7	3	.46
8	1	.21
9	1	.37

*Alabama, Arizona, Colorado, Delaware, Florida, Georgia, Hawaii, Idaho, Kansas, Maryland, Missouri, Nebraska, New Jersey, New Mexico, Ohio, Oklahoma, Oregon, Rhode Island, South Dakota, Utah, Michigan, Wyoming

**Attack rate in cases per million person-weeks of risk
Reported by the National Influenza Immunization Program and Viral Diseases Div, Bur of Epidemiology, CDC.

Influenza Vaccine Recommendations

On February 8, 1977, Secretary of Health, Education, and Welfare Joseph A. Califano, Jr. announced the following recommendations:

1. The moratorium on bivalent influenza vaccine (A/New Jersey and A/Victoria) will be lifted. It is recommended that bivalent vaccine be given to high-risk persons as previously defined by the Advisory Committee on Immunization Practices (ACIP). Special attention should be given to persons residing in nursing homes and health care institutions.

For the general population, discretionary use of bivalent vaccine will be permitted for individuals most likely to

be exposed, such as those who care for high-risk individuals.

2. The moratorium on monovalent B/Hong Kong influenza vaccine will be lifted.
3. The moratorium on monovalent A/New Jersey influenza vaccine will remain in effect. Careful surveillance will continue, and appropriate action will be taken at the first sign of an A/New Jersey influenza outbreak.

A new informed consent form — setting forth the risks of Guillain-Barré following influenza immunization — is being prepared and should be signed by potential vaccinees before receiving influenza vaccine.

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