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MORBIDITY AND MORTALITY WEEKLY REPORT

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Epidemiologic Notes and Reports

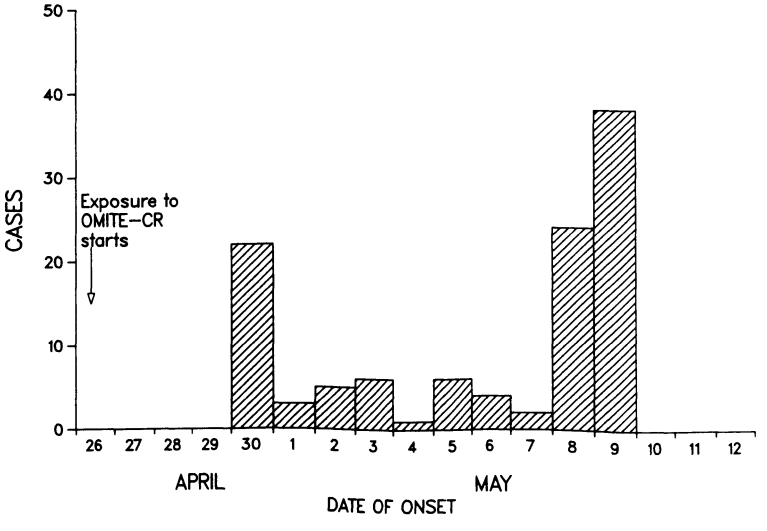
Outbreak of Severe Dermatitis among Orange Pickers — California

In May 1986, a dermatitis outbreak occurred among orange pickers employed by a packer in Tulare County, California. The Worker Health and Safety Branch of the California Department of Food and Agriculture (CDFA) notified the California Department of Health Services of the outbreak on May 12 after it had been reported by the Tulare County Agricultural Commissioner's office.

Physicians for 114 (58%) of the 198 orange pickers filed Pesticide Illness Reports (PIRs) for pesticide-induced dermatitis (PIRs are required in California for cases of suspected pesticide illness and are considered to represent an official case count). Onset of dermatitis occurred between April 30 and May 9, 1986 (Figure 1), following exposures to OMITE-CR* (Uniroyal Chemical Co.) beginning April 26. Dermatitis incidence rates for each of six work crews ranged from 23% (6/26) to as high as 78% (28/36).

*Use of trade names is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.

FIGURE 1. Dermatitis outbreak among orange pickers, by date of onset — Tulare County, California, April 26-May 9, 1986



Dermatitis – Continued

Additional investigation included on-site observations and interviews with three of the six work crews (88 workers), collection of spraying and work histories for January 1-May 12 relating to all 80 orchards harvested by the crews, and leaf residue degradation data. On-site observations revealed that the orange pickers frequently leaned into dense foliage to harvest oranges; thus, direct contact with foliage plus possible exposure to pesticide residue occurred. The interviews revealed that the dermatitis occurred commonly in the exposed areas of the neck (81%) and the chest (42%). Most of the pickers reported that dermatitis started with burning, redness, and itching. In many cases, the lesion progressed to small papules, vesicles with weeping and crusting, exfoliation, and hyperpigmentation. One-third of the interviewed workers reported exfoliation, indicating severe dermatitis. Thirty-four percent reported eye irritation, for which 8% received medical treatment.

The Tulare County Agricultural Commissioner considered the miticide OMITE-CR the likely cause of the dermatitis, providing a working hypothesis. An analysis based on the interviews, PIR reports, and leaf residue sampling information concluded: (1) no cases of dermatitis occurred in the interval immediately before the harvesting of fields sprayed with OMITE-CR; (2) the highest correlation (*1*)† in a predicted direction was between residue-hours of OMITE-CR (a measure combining estimated leaf residue multiplied by hours spent harvesting) and dermatitis (R_s = 0.60). Simple cumulative hours of OMITE-CR exposure produced a slightly lower correlation (R_s = 0.54). No positive correlation was found between cumulative hours of exposure to CARZOL* (NOR-AM), the only other pesticide used extensively in the orchards, and dermatitis (R_s = −0.02). A measure of "OMITE-CR + CARZOL" interaction correlated less highly with dermatitis (R_s = 0.37) than did the OMITE-CR exposure alone. Cumulative hours of exposure to other pesticides correlated inversely with dermatitis (R_s = −0.71); and (3) no violations of preharvest intervals (the interval between last application and harvest) or application levels (lbs/acre) were noted for any of the pesticides used on the orchards.

The workers were treated by local physicians, and symptoms improved. The county instituted an emergency 14-day reentry interval for fields with OMITE-CR, extending the California label instructions (1-day reentry, 7-day preharvest). This reentry interval was later extended to 28 days, then to 35 days. Subsequently, the manufacturer withdrew the California registration for OMITE-CR.

Reported by C Churchill, Agricultural Commissioner, and staff, Tulare County Agriculture Dept, J Pendleton, MD, Health Officer, and staff, Tulare County Health Dept, K Maddy, DVM, and staff, Worker Health and Safety Br, California Dept of Food and Agriculture, RG Ames, PhD, JB Knaak, PhD, R Jackson, MD, Hazard Evaluation Section, California Dept of Health Svcs, Berkeley, KW Kizer, MD, Director, California Dept of Health Svcs, Sacramento; Div of Field Svcs, Epidemiology Program Office, CDC.

Editorial Note: This is the largest pesticide-induced dermatitis outbreak recorded in California. Because that state requires pesticide illness reports, the outbreak and its causal factors were quickly identified so that appropriate interventions could be made.

OMITE-CR, the pesticide identified in the dermatitis outbreak, is a noncholinesterase-inhibiting miticide of low systemic toxicity but with known dermal irritation qualities. Its active ingredient is 30% propargite, 2-{4-(1,1-dimethylethyl)phenoxy} cyclohexyl-2-propynyl sulfite (*2*). The manufacturer had recently reformulated it to prevent leaf burn in citrus trees by coating the propargite granules in an inert ingredient that apparently slowed degradation. The CDFA continued the 7-day preharvest interval for the new formulation that was previously established for the earlier formulation (OMITE-30W).

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†Spearman rank-order correlation coefficients, R_s, were used to correlate indexes of exposure and dermatitis outcome.

Dermatitis – Continued

Next to sulfur, propargite is the second most frequently reported pesticide in the California PIRS as a probable cause of dermatitis among agricultural workers. During a 12-year period from 1974 through 1985, 506 cases of dermatitis associated with exposure to propargite were recorded, compared with 677 for sulfur (*3*). Certain California counties require a 3-day field reentry interval for sulfur. For one other pesticide, anilazine (DYRENE*), California requires a 48-hour reentry interval based on dermal effects.

Protective clothing is usually neither practical nor effective for preventing skin exposure to pesticides in field crop workers. Impermeable clothing promotes the potential for heat stress, and monitoring skin exposure by dermal patches beneath permeable clothing has demonstrated that substantial skin exposure to residues still occurs. The most effective strategy for control is regulation through establishment of safe reentry intervals for skin exposure. The investigation reported above is one of the few instances where residue levels were sufficiently documented at the time of the dermatitis outbreak to establish a safe reentry level.

This outbreak underscores the potential of inert ingredients to compromise the safety and health of the worker and the need for prompt reporting and investigation of occupational illness episodes.

References

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Tuberculosis among Migrant Farm Workers — Virginia

The Commonwealth of Virginia annually experiences an influx of migrant farm workers to its Eastern Shore and northwestern regions. Tuberculosis is an important health problem among these migrant workers, but organized efforts to detect, treat, and prevent disease in this group are difficult to establish and maintain. Workers start arriving in early May, peak in number in mid-July, and move on to other states or return to their winter quarters (usually Florida or Texas) by late October or early November. The transient nature of their occupation and the long duration of tuberculosis treatment make it difficult for state and local health departments to assure patient compliance with screening programs, preventive therapy, and chemotherapy for disease. The absence of an interstate tracking system and the difficulties associated with ascertaining workers' itineraries in advance further complicate the attempts of migrant crews, migrant organizations, and public health workers to insure appropriate follow-up.

To address these problems, health-care providers in eastern and northwestern Virginia collaborated in a project to identify migrant farm workers who (1) have tuberculosis and need treatment, (2) are infected and need evaluation for preventive treatment, or (3) have been exposed to an infectious person and need to be examined for infection and disease. In addition, the program was designed to unify and intensify follow-up efforts.

During the summers of 1984 and 1985, tuberculin-testing clinics were established in migrant camps throughout the Eastern Shore and, in 1985, northwestern Virginia. Services were provided during nonwork hours. Participation was voluntary, and considerable effort was made to obtain reliable follow-up information (travel itineraries, winter addresses, relatives' addresses). Clinics were staffed by physicians, field epidemiologists, and x-ray techni-

Tuberculosis — Continued

cians from the Virginia Department of Health Tuberculosis Control Program and by local public health nurses. Local and state migrant-advocacy groups supplied some transportation and interpretive services. Participants received a Mantoux tuberculin skin test, which was interpreted after 48 hours. On the night of the reading, workers with significant reactions (10-mm induration or greater) were given a chest radiograph and examined by a clinician. If indicated, a bacteriologic specimen was also obtained.

On the Eastern Shore, 496 (13%) of the estimated 3,962 migrant farm workers were screened in 1984, and 632 (21%) of the estimated 3,000 workers were screened in 1985. Twelve persons with culture-proven tuberculosis were identified and had treatment initiated in the 2 years of this program, compared with nine cases in the previous 2 years. None of the 12 patients had come to the clinics seeking medical care.

In addition to the 12 verified cases, 486 other workers had reactive tuberculin tests. The prevalence of tuberculous infection was highest among Haitian workers and lowest among non-Hispanic whites (Table 1). An analysis of age-specific infection rates for the 2-year period revealed a prevalence of infection of 2% for the 204 children under 15 years old, 49% for the 517 workers 15-34 years old, and 59% for the 408 persons 35 years of age or older.

The screening program in northwestern Virginia in 1985 reached 135 (5%) of the estimated 3,000 migrant farm workers and yielded no cases of tuberculosis. It did, however, reveal a similar rate of infection (41%).

Approximately 400 of the 555 tuberculin reactors identified in the two screening programs were started on preventive therapy with isoniazid. The results of tuberculin testing and treatment schedules were recorded on the individual worker's health card. Similar information was forwarded to local health departments of the areas on the worker's itinerary at his/her winter quarters to assure completion of treatment. Workers were urged to report to any state health clinic, show the health card, and request follow-up evaluation and/or additional medication.

This program is being expanded in 1986 in an attempt to serve larger numbers of persons in this high-risk population.

Reported by CF Wingo, MD, Tuberculosis Control Program, B Borgstrom, Eastern Shore Health District, GB Miller, Jr, MD, State Epidemiologist, Virginia State Dept of Health; Div of Tuberculosis Control, Center for Prevention Svcs, CDC.

Editorial Note: The national prevalence of tuberculosis and tuberculous infection of migrant farm workers is not known, and additional surveys should be conducted in other areas. In the Virginia screening program, Hispanics, persons from Haiti, and other blacks accounted for

TABLE 1. Results of tuberculin skin testing among migrant farm workers, by race/ethnic group — Eastern Shore, Virginia, 1984-1985

Race/ethnic group	1984				1985			
	No. tested and read	Tuberculin reactors (%)		Verified cases	No. tested and read	Tuberculin reactors (%)		Verified cases
Black, non-Hispanic/ non-Haitian	222	93	(41.9)	6	265	117	(44.2)	2
Haitian	107	74	(69.2)	2	242	157	(64.9)	1
Hispanic	101	25	(24.8)	0	113	29	(25.7)	0
White, non-Hispanic	66	1	(1.5)	0	13	2	(15.4)	1
Total	**496**	**193**	**(38.9)**	**8**	**633**	**305**	**(48.2)**	**4**

Tuberculosis – Continued

83% of the migrant farm workers, and these population groups are known to have high rates of tuberculosis nationally. For example, in 1980, the case rate per 100,000 population for non-Hispanic blacks was 32.3, and for Hispanics, 22.7, compared with 7.8 for non-Hispanic whites (*1*). A survey among persons of Haitian origin in Florida in 1980 and 1981 revealed a prevalence rate of 650/100,000 population (*2*).

Foreign-born persons in this screening program were primarily from Haiti. Previous recommendations have emphasized the importance of screening persons from all countries with high rates of tuberculosis (*3*).

The 12 cases of tuberculosis identified on the Eastern Shore in the small group that was screened represented a prevalence rate of 202/100,000 population for 1984 and 133/100,000 population for 1985. These rates were calculated with the use of the estimated migrant population as the denominator and assume that all cases of tuberculosis in this target group were discovered through the screening program. The actual rates of disease may, in fact, have been higher. Although the numerators are small, prevalence rates among these workers are 10-20 times greater than the national incidence rate of 9.4/100,000 for 1985 (*4*). (The incidence and prevalence of tuberculosis are approximately equivalent in the United States.)

The prevalence of tuberculous infection indicated by significant skin-test reactions is remarkably higher among these migrant farm workers than among other groups known to have a very high risk of acquiring tuberculous infection. Among close contacts of infectious persons with tuberculosis in the United States, the infection rate for 1984 was 25% (*4*); in a screening program of 11,746 Southeast Asian refugees who were tuberculin skin-tested between 1979 and 1982, the prevalence of significant reactions was 35% (*5*). The occurrence of tuberculous infection among migrant children under 15 years of age indicates that transmission is continuing to occur in the community. The much higher prevalence of infection among adults suggests the possibility that transmission may be associated with the crowded living conditions shared only by the adult migrant farm workers.

The results of this screening program demonstrate the value of identifying high-risk populations that may benefit from tuberculin screening. Moreover, it illustrates two purposes of screening persons with the Mantoux tuberculin skin test. The first is to identify patients with tuberculosis who are potentially infectious and require multiple-drug therapy. However, because of the possibility of false-negative skin tests in persons with extensive disease, further tests, such as a sputum smear and culture and a chest radiograph, should be performed on any person in whom pulmonary tuberculosis is suspected. The second purpose is to identify asymptomatic persons who are infected with the tubercule bacillus. Such persons constitute a reservoir of persons at high risk of developing clinical disease and should be evaluated for preventive therapy. The main purpose of identifying persons with significant skin-test reactions who are not yet clinically ill is to evaluate such persons for preventive therapy. Previous recommendations have suggested that migrant farm workers should be screened and placed on preventive therapy only in areas where follow-up can be assured (*6*).

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Current Trends

Influenza — United States, 1985-1986 Season

The 1985-1986 influenza B epidemic that peaked in February 1986 was the largest influenza B epidemic in the United States since the 1968-1969 influenza season. It was caused primarily by virus strains that were antigenically distinct from preceding strains. Large numbers of outbreaks occurred in schools, and many adults were also affected. Influenza A(H3N2) viruses also circulated and were isolated with about one-third the frequency of influenza B. However, type A(H3N2) was the predominant influenza virus isolated from persons over 64 years old. Type A(H1N1) virus was rarely isolated. Surveillance data from 121 cities indicated that excess pneumonia and influenza (P&I) mortality occurred during the epidemic, although to a lesser extent than during the previous season. Most of the P&I mortality occurred in the over-64-year age group, from which type A(H3N2) virus was most frequently isolated. Some sporadic cases and a few small clusters of deaths due to myocarditis or other conditions producing a toxic-shock-like syndrome were reported among previously healthy children and adults in association with influenza B outbreaks (*1*).

(Continued on page 475)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	29th Week Ending			Cumulative, 29th Week Ending		
	July 19, 1986	July 20, 1985	Median 1981-1985	July 19, 1986	July 20, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	191	141	N	6,777	4,096	N
Aseptic meningitis	271	240	259	3,105	2,806	2,855
Encephalitis: Primary (arthropod-borne & unspec.)	24	26	34	451	539	539
Post-infectious	2	4	2	58	81	58
Gonorrhea: Civilian	17,415	19,802	19,802	463,776	450,758	487,510
Military	393	287	418	8,704	10,152	13,180
Hepatitis: Type A	406	419	419	11,977	11,830	11,830
Type B	555	557	477	14,070	13,914	12,970
Non A, Non B	79	62	N	1,950	2,273	N
Unspecified	79	118	165	2,611	3,145	3,974
Legionellosis	12	19	N	323	380	N
Leprosy	5	2	6	154	209	145
Malaria	32	22	16	497	496	496
Measles: Total*	145	59	59	4,427	2,084	2,062
Indigenous	138	52	N	4,209	1,762	N
Imported	7	7	N	218	322	N
Meningococcal infections: Total	34	37	43	1,589	1,514	1,803
Civilian	34	37	43	1,587	1,508	1,799
Military	-	-	-	2	6	8
Mumps	55	32	40	2,710	2,004	2,250
Pertussis	45	58	46	1,412	1,026	1,026
Rubella (German measles)	12	19	19	324	411	711
Syphilis (Primary & Secondary): Civilian	413	551	639	13,844	13,821	16,596
Military	6	3	8	99	99	217
Toxic Shock syndrome	9	3	N	195	217	N
Tuberculosis	442	516	516	11,684	11,538	12,710
Tularemia	1	4	12	54	90	120
Typhoid fever	4	3	4	147	170	201
Typhus fever, tick-borne (RMSF)	48	31	60	350	329	541
Rabies, animal	88	129	128	3,040	2,892	3,549

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis	20
Botulism: Foodborne	5	Plague	2
Infant (Utah 1)	28	Poliomyelitis, Paralytic	-
Other	1	Psittacosis (N.C. 1, Ga. 1, La. 1, N.Mex. 2, Wash. 1)	50
Brucellosis (Tex. 1, Calif. 1)	37	Rabies, human	-
Cholera	-	Tetanus (Md. 1)	30
Congenital rubella syndrome	2	Trichinosis	20
Congenital syphilis, ages < 1 year	11	Typhus fever, flea-borne (endemic, murine)	22
Diphtheria	-		

*Three of the 145 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending July 19, 1986 and July 20, 1985 (29th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	6,777	271	451	58	463,776	450,758	406	555	79	79	12	154
NEW ENGLAND	291	9	14	2	10,922	13,128	7	26	1	9	-	6
Maine	12	2	-	-	500	574	1	3	-	-	-	-
N H	6	2	2	-	274	302	-	-	-	-	-	-
Vt	2	-	2	1	149	163	-	1	-	-	-	-
Mass	164	4	3	-	4,595	4,986	3	12	1	9	-	6
R I	18	-	-	-	924	1,015	-	-	-	-	-	-
Conn	89	1	7	1	4,480	6,088	3	10	-	-	-	-
MID ATLANTIC	2,621	36	62	6	78,563	69,446	18	40	5	15	-	11
Upstate N Y	238	9	21	4	9,373	8,980	6	11	1	-	-	1
N Y City	1,762	9	14	-	46,425	35,676	1	-	-	14	-	9
N J	440	17	10	-	10,062	10,555	3	14	1	1	-	-
Pa	181	1	17	2	12,703	14,235	8	15	3	-	-	1
E N CENTRAL	436	55	107	8	61,314	63,269	15	59	6	3	6	4
Ohio	100	24	33	2	15,683	16,009	7	38	3	-	2	-
Ind	41	12	21	3	6,723	6,398	2	7	-	2	3	-
Ill	206	9	23	2	17,197	17,446	3	1	-	-	-	3
Mich	71	10	26	1	19,139	17,652	3	13	3	1	1	1
Wis	18	-	4	-	2,572	5,764	-	-	-	-	-	-
W N CENTRAL	125	22	11	8	20,407	21,892	11	21	3	-	2	2
Minn	47	2	7	-	2,858	3,081	2	2	-	-	-	1
Iowa	10	-	4	-	2,045	2,325	1	2	-	-	-	-
Mo	44	7	-	-	10,325	10,430	4	11	3	-	1	-
N Dak	2	-	-	-	179	149	-	-	-	-	-	-
S Dak	1	3	-	-	419	406	-	3	-	-	-	-
Nebr	5	9	-	1	1,505	1,998	-	2	-	-	1	-
Kans	16	1	-	7	3,076	3,503	4	1	-	-	-	1
S ATLANTIC	861	52	62	19	115,969	97,558	39	116	17	8	1	1
Del	14	1	4	-	1,923	2,219	2	-	1	-	-	-
Md	99	6	17	-	14,160	15,858	6	9	-	-	-	-
D C	119	-	-	-	9,096	8,184	-	2	-	-	-	-
Va	92	4	21	1	9,837	10,025	2	12	-	1	1	1
W Va	4	1	10	-	1,260	1,321	1	3	1	-	-	-
N C	39	15	8	1	18,679	18,489	-	10	-	-	-	-
S C	21	-	-	-	10,734	11,902	2	19	4	3	-	-
Ga	138	12	-	1	15,862	-	2	22	3	-	-	-
Fla	335	13	2	16	34,418	29,560	24	39	8	4	-	-
E S CENTRAL	95	15	29	3	38,272	39,250	4	28	2	2	1	1
Ky	18	1	11	1	4,290	4,466	2	10	-	-	-	-
Tenn	53	8	3	1	14,823	15,389	2	9	-	2	-	-
Ala	14	6	14	1	10,955	12,434	-	6	-	-	-	1
Miss	10	-	1	-	8,204	6,961	-	3	2	-	1	-
W S CENTRAL	467	33	58	3	57,401	60,206	26	43	14	11	1	12
Ark	19	-	-	-	5,296	5,703	-	-	-	-	-	-
La	90	1	3	-	10,267	11,964	-	6	-	-	1	1
Okla	27	5	13	-	6,406	6,428	8	6	-	-	-	-
Tex	331	27	42	3	35,432	36,111	18	31	14	11	-	11
MOUNTAIN	188	9	17	1	14,046	14,662	46	44	9	13	-	11
Mont	4	-	-	1	405	401	3	3	-	-	-	-
Idaho	2	-	-	-	474	467	8	3	-	-	-	-
Wyo	4	-	2	-	325	373	-	1	1	1	-	-
Colo	92	3	3	-	3,617	4,416	4	8	2	6	-	3
N Mex	11	-	1	-	1,408	1,639	2	5	1	-	-	-
Ariz	48	5	8	-	4,523	4,275	22	16	5	6	-	5
Utah	9	1	2	-	608	640	3	5	-	-	-	1
Nev	18	-	1	-	2,686	2,451	4	3	-	-	-	2
PACIFIC	1,693	40	91	8	66,882	71,347	240	178	22	18	1	106
Wash	82	-	10	-	4,939	5,032	48	36	5	2	-	12
Oreg	35	-	-	-	2,650	3,470	27	12	4	-	-	-
Calif	1,542	37	79	8	56,918	60,163	165	124	13	16	1	75
Alaska	9	-	2	-	1,592	1,689	-	-	-	-	-	-
Hawaii	25	3	-	-	783	993	-	6	-	-	-	19
Guam	-	-	-	-	93	108	1	-	-	1	-	1
P R	57	1	3	-	1,299	1,991	-	8	1	8	-	7
V I	2	-	-	-	135	279	-	1	-	-	-	-
Pac Trust Terr	-	-	-	-	208	502	4	-	-	1	-	20
Amer Samoa	-	-	-	-	27	-	-	-	-	-	-	1

N Not notifiable U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending July 19, 1986 and July 20, 1985 (29th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum. 1986	1986	Cum. 1986	1986	Cum. 1986	Cum. 1985	Cum. 1986	1986	Cum. 1986	1986	Cum. 1986	Cum. 1985	1986	Cum. 1986	Cum. 1985
UNITED STATES	497	138	4,209	7	218	2,084	1,589	55	2,710	45	1,412	1,026	12	324	411
NEW ENGLAND	29	2	72	1	6	119	113	1	49	8	91	52	-	9	9
Maine	1	1	10	-	-	-	23	-	-	-	2	3	-	-	-
N.H.	1	1	36	-	-	-	6	1	13	8	46	24	-	1	2
Vt.	1	-	-	-	-	-	15	-	2	-	3	2	-	1	-
Mass.	15	-	23	1 †	5	112	22	-	6	-	23	9	-	4	6
R.I.	4	-	2	-	-	-	15	-	9	-	1	8	-	2	-
Conn.	7	-	1	-	1	7	32	-	19	-	16	6	-	1	1
MID. ATLANTIC	52	41	1,342	-	20	177	258	6	120	3	110	77	2	30	162
Upstate N.Y.	16	6	41	-	19	82	82	5	49	3	73	42	2	22	17
N.Y. City	12	35	403	-	1	48	53	-	5	-	3	9	-	5	122
N.J.	7	-	876	-	-	24	29	-	31	-	9	3	-	3	11
Pa.	17	-	22	-	-	23	94	1	35	-	25	23	-	-	12
E.N. CENTRAL	30	29	739	-	17	480	211	28	1,765	3	203	173	1	25	20
Ohio	8	-	-	-	10	47	86	4	96	2	82	21	-	-	-
Ind.	2	4	11	-	-	49	16	-	29	-	22	11	-	-	-
Ill.	10	11	473	-	3	274	57	22	1,237	-	26	24	-	18	5
Mich.	9	14	45	-	-	52	48	2	232	-	23	22	1	5	14
Wis.	1	-	210	-	4	58	4	-	171	1	50	95	-	2	1
W.N. CENTRAL	18	11	265	-	17	9	80	4	77	6	79	73	-	9	19
Minn.	5	-	43	-	4	4	16	-	1	-	33	20	-	-	2
Iowa	1	3	78	-	1	-	10	3	19	2	11	4	-	1	1
Mo.	6	8	25	-	6	2	27	-	15	-	5	13	-	1	7
N. Dak.	-	-	25	-	1	2	-	-	3	-	3	9	-	-	2
S. Dak.	-	-	-	-	-	-	4	-	1	1	13	1	-	-	-
Nebr.	4	-	-	-	-	-	9	-	-	-	-	4	-	-	-
Kans.	2	-	94	-	5	1	14	1	38	3	14	22	-	7	7
S. ATLANTIC	64	10	439	-	51	220	306	6	141	8	483	203	-	9	43
Del.	1	-	1	-	-	-	2	-	-	1	222	-	-	-	1
Md.	11	-	20	-	9	55	42	-	12	-	99	90	-	-	3
D.C.	-	-	-	-	-	3	4	-	-	-	-	-	-	-	-
Va.	13	2	33	-	24	22	52	2	27	-	20	5	-	-	2
W. Va.	4	-	2	-	-	33	3	1	36	-	10	1	-	-	9
N.C.	4	-	2	-	1	9	50	-	14	4	27	10	-	-	-
S.C.	4	1	275	-	-	-	27	-	11	-	5	-	-	-	3
Ga.	6	7	75	-	14	8	45	1	14	3	79	59	-	-	-
Fla.	21	-	31	-	3	90	81	2	27	-	21	38	-	9	25
E.S. CENTRAL	13	6	55	1	2	2	87	-	21	1	24	16	-	1	2
Ky.	3	-	-	-	-	-	18	-	3	-	1	3	-	1	2
Tenn.	-	6	53	-	1	1	34	-	15	-	6	5	-	-	-
Ala.	6	-	-	1 †	1	-	24	-	2	1	17	6	-	-	-
Miss.	4	-	2	-	-	1	11	-	1	-	-	2	-	-	-
W.S. CENTRAL	43	8	561	-	33	369	132	2	139	2	99	163	-	53	28
Ark.	-	-	276	-	2	-	19	-	7	-	7	12	-	-	1
La.	5	1	3	-	-	39	17	-	2	-	6	8	-	-	-
Okla.	7	4	29	-	2	1	18	N	N	2	58	92	-	-	1
Tex.	31	3	253	-	29	329	78	2	130	-	28	51	-	53	26
MOUNTAIN	20	10	284	-	25	483	78	1	192	7	147	60	1	20	4
Mont.	-	-	1	-	7	137	7	-	5	-	7	4	1	2	-
Idaho	1	-	1	-	-	132	2	-	4	-	31	2	-	-	1
Wyo.	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-
Colo.	7	-	2	-	5	6	13	-	11	3	41	22	-	1	-
N. Mex.	1	-	26	-	7	3	6	N	N	1	16	9	-	-	2
Ariz.	7	10	247	-	6	205	16	1	160	1	30	14	-	2	1
Utah	2	-	6	-	-	-	9	-	9	2	18	9	-	12	-
Nev.	2	-	1	-	-	-	23	-	3	-	3	-	-	3	-
PACIFIC	228	21	452	5	47	225	324	7	206	7	176	209	8	168	124
Wash.	18	14	123	2 §	25	39	47	-	7	3	60	27	-	8	11
Oreg.	14	-	2	-	4	3	22	N	N	-	9	21	1	1	1
Calif.	196	7	308	3 † §	17	165	244	7	185	4	99	135	5	155	71
Alaska	-	-	-	-	-	-	9	-	5	-	2	23	-	-	1
Hawaii	-	-	19	-	1	18	2	-	9	-	6	3	2	4	40
Guam	1	-	4	-	1	11	-	-	4	-	-	-	-	2	2
P.R.	4	-	33	-	-	48	3	-	20	2	9	6	-	58	22
V.I.	-	-	-	-	-	10	-	-	12	-	-	-	-	-	-
Pac. Trust Terr.	-	-	-	-	-	-	1	-	5	-	-	-	-	-	-
Amer. Samoa	-	-	2	-	-	-	-	-	1	-	-	-	-	1	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending July 19, 1986 and July 20, 1985 (29th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	13,844	13,821	9	11,684	11,538	54	147	350 +47	3,040
NEW ENGLAND	282	298	2	362	385	-	9	5	3
Maine	15	9	1	29	29	-	-	-	-
N H	10	6	-	10	15	-	-	-	-
Vt	6	3	-	12	4	-	-	-	-
Mass	145	155	-	180	230	-	7	2	-
R I	16	7	1	24	32	-	-	2	1
Conn	90	118	-	107	75	-	2	1	2
MID ATLANTIC	1,986	1,879	-	2,370	2,133	1	14	10	356
Upstate N Y	96	125	-	345	351	-	2	2	40
N Y City	1,149	1,168	-	1,230	1,063	-	6	4	-
N J	369	376	-	409	279	1	5	1	10
Pa	372	210	-	386	440	-	1	3	306
E N CENTRAL	565	631	-	1,408	1,401	-	11	44	72
Ohio	74	88	-	232	261	-	1	42	5
Ind	67	61	-	148	170	-	1	-	11
Ill	305	324	-	630	612	-	2	1	23
Mich	91	122	-	331	281	-	5	1	16
Wis	28	36	-	67	77	-	2	-	17
W N CENTRAL	133	126	-	329	314	14	5	18 +1	494
Minn	22	28	-	81	62	-	1	1	60
Iowa	6	14	-	26	41	1	-	1	111
Mo	73	59	-	164	149	10	4	5	55
N Dak	2	2	-	4	3	-	-	-	110
S Dak	2	4	-	16	16	2	-	4 1	101
Nebr	11	6	-	6	13	1	-	3	17
Kans	17	13	-	32	30	-	-	4	40
S ATLANTIC	4,048	3,511	3	2,266	2,361	7	18	159 +31	704
Del	30	17	-	26	24	-	-	1	-
Md	249	221	-	161	212	1	5	17 3	364
D C	176	201	-	74	98	-	2	-	-
Va	212	167	-	194	213	2	5	23 3	108
W Va	12	9	-	67	61	-	2	6 1	15
N C	292	375	-	323	296	1	2	53 13	4
S C	367	425	3	289	312	-	-	48 9	32
Ga	637	-	-	333	373	3	-	11 2	101
Fla	2,073	2,096	-	799	772	-	2	-	80
E S CENTRAL	938	1,077	-	1,016	1,019	6	1	45 9	163
Ky	47	35	-	250	228	2	-	10 5	56
Tenn	347	307	-	299	304	3	-	18 2	56
Ala	304	362	-	331	319	1	-	10 2	50
Miss	240	373	-	136	168	-	1	7	1
W S CENTRAL	2,893	3,390	3	1,480	1,395	23	12	63 6	466
Ark	153	171	-	188	148	14	-	2	111
La	481	592	-	228	195	1	-	-	14
Okla	77	96	-	137	152	6	1	52 6	38
Tex	2,182	2,531	3	927	900	2	11	9	303
MOUNTAIN	331	404	1	263	309	2	7	6	443
Mont	6	2	-	16	41	-	1	3	156
Idaho	6	3	-	11	15	-	-	-	1
Wyo	-	6	-	-	5	-	-	1	203
Colo	82	98	-	20	36	-	1	2	4
N Mex	44	62	-	54	58	1	-	-	4
Ariz	136	208	-	127	127	-	2	-	71
Utah	9	4	1	20	6	1	2	-	1
Nev	48	21	-	15	21	-	1	-	3
PACIFIC	2,668	2,505	-	2,190	2,221	1	70	-	339
Wash	52	70	-	113	122	-	3	-	2
Oreg	59	48	-	74	75	-	-	-	-
Calif	2,535	2,342	-	1,855	1,845	-	63	-	329
Alaska	1	2	-	33	66	1	1	-	8
Hawaii	21	43	-	115	113	-	3	-	-
Guam	1	2	-	32	28	-	-	-	-
P R	446	442	-	165	185	-	4	-	26
V I	-	1	-	1	1	-	-	-	-
Pac. Trust Terr.	162	49	-	33	35	-	39	-	-
Amer. Samoa	-	-	-	3	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending July 19, 1986 (29th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	569	368	126	34	17	24	30
Boston, Mass.	176	106	45	14	3	8	10
Bridgeport, Conn.	30	20	6	3	1	-	2
Cambridge, Mass.	12	9	2	1	-	-	1
Fall River, Mass.	21	18	2	1	-	-	-
Hartford, Conn.	44	27	11	1	3	2	3
Lowell, Mass.	30	20	6	-	2	2	3
Lynn, Mass.	19	14	4	1	-	-	-
New Bedford, Mass.	21	18	2	1	-	-	1
New Haven, Conn.	42	22	10	4	2	4	2
Providence, R.I.	45	28	12	1	-	4	1
Somerville, Mass.	6	6	-	-	-	-	-
Springfield, Mass.	34	23	7	1	1	2	2
Waterbury, Conn.	32	20	7	1	3	1	3
Worcester, Mass.	57	37	12	5	2	1	2
MID ATLANTIC	2,578	1,653	509	247	77	91	98
Albany, N.Y.	48	30	12	1	1	4	2
Allentown, Pa.	24	20	2	-	2	-	-
Buffalo, N.Y.	104	70	20	5	4	5	3
Camden, N.J.	31	22	5	3	-	1	1
Elizabeth, N.J.	30	21	6	3	-	-	1
Erie, Pa.†	33	23	7	3	-	-	1
Jersey City, N.J.	39	22	9	6	2	-	-
N.Y. City, N.Y.	1,405	867	279	161	43	55	48
Newark, N.J.	71	34	14	14	3	5	1
Paterson, N.J.	27	17	3	2	1	4	1
Philadelphia, Pa.§	351	240	80	24	3	4	17
Pittsburgh, Pa.†	49	31	9	6	2	1	1
Reading, Pa.	26	19	3	1	2	1	1
Rochester, N.Y.	112	71	25	5	5	6	8
Schenectady, N.Y.	21	15	5	-	1	-	1
Scranton, Pa.†	26	19	5	-	1	1	3
Syracuse, N.Y.	85	63	12	4	4	2	3
Trenton, N.J.	41	27	4	6	2	2	4
Utica, N.Y.	28	24	3	-	1	-	1
Yonkers, N.Y.	27	18	6	3	-	-	-
E.N. CENTRAL	2,309	1,480	510	173	72	74	96
Akron, Ohio	68	45	15	3	2	3	3
Canton, Ohio	33	24	6	1	1	1	2
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	206	142	44	9	6	5	17
Cleveland, Ohio	151	93	40	10	3	5	4
Columbus, Ohio	126	78	26	12	5	5	6
Dayton, Ohio	119	72	37	6	3	1	8
Detroit, Mich.	254	138	54	32	19	11	2
Evansville, Ind.	46	36	7	3	-	-	-
Fort Wayne, Ind.	47	34	5	3	3	2	3
Gary, Ind.	18	8	5	4	1	-	-
Grand Rapids, Mich.	60	42	14	2	2	-	3
Indianapolis, Ind.	170	104	35	19	6	6	4
Madison, Wis.	39	25	6	2	3	3	5
Milwaukee, Wis.	120	81	26	7	2	4	5
Peoria, Ill.	57	38	10	5	2	2	6
Rockford, Ill.	40	27	8	3	2	-	3
South Bend, Ind.	37	25	9	2	-	1	2
Toledo, Ohio	104	75	21	3	2	3	5
Youngstown, Ohio	50	31	17	2	-	-	2
W.N. CENTRAL	697	479	130	41	20	27	25
Des Moines, Iowa	62	44	16	2	-	-	1
Duluth, Minn.	26	16	5	-	-	5	1
Kansas City, Kans.	35	27	4	1	2	1	-
Kansas City, Mo.	111	70	27	6	3	5	8
Lincoln, Nebr.	39	28	8	-	1	2	3
Minneapolis, Minn.	53	45	3	2	2	1	1
Omaha, Nebr.	87	64	16	5	1	1	5
St. Louis, Mo.	153	102	31	12	3	5	3
St. Paul, Minn.	57	39	7	6	3	2	-
Wichita, Kans.	74	44	13	7	5	5	3
S. ATLANTIC	1,222	731	277	117	48	48	49
Atlanta, Ga.	209	117	52	24	8	8	4
Baltimore, Md.	153	93	35	12	3	10	4
Charlotte, N.C.	85	57	17	5	3	3	2
Jacksonville, Fla.	116	73	22	10	8	3	5
Miami, Fla.	79	33	29	11	2	4	5
Norfolk, Va.	73	40	16	9	5	3	6
Richmond, Va.	78	46	20	7	2	3	7
Savannah, Ga.	30	16	11	1	2	-	3
St. Petersburg, Fla.	153	125	19	2	6	1	7
Tampa, Fla.	86	52	19	6	1	7	2
Washington, D.C.	139	64	33	29	7	6	3
Wilmington, Del.	21	15	4	1	1	-	1
E.S. CENTRAL	810	499	175	76	32	28	36
Birmingham, Ala.	106	52	32	13	5	4	2
Chattanooga, Tenn.	65	46	12	4	-	3	10
Knoxville, Tenn.	66	46	14	4	2	-	5
Louisville, Ky.	122	70	33	15	1	3	6
Memphis, Tenn.§	157	96	35	12	7	7	6
Mobile, Ala.	89	62	14	7	5	1	2
Montgomery, Ala.	66	41	8	6	6	5	-
Nashville, Tenn.	139	86	27	15	6	5	5
W.S. CENTRAL	1,339	748	318	143	76	53	45
Austin, Tex.	49	32	7	7	2	1	3
Baton Rouge, La.	46	30	12	2	-	2	3
Corpus Christi, Tex.	35	16	12	4	1	2	1
Dallas, Tex.	210	106	56	29	7	12	7
El Paso, Tex.	64	37	16	5	4	1	4
Fort Worth, Tex.	111	56	24	13	12	6	5
Houston, Tex.	338	182	71	48	28	9	2
Little Rock, Ark.	83	48	24	4	2	5	7
New Orleans, La.	97	54	22	10	6	5	1
San Antonio, Tex.	171	99	46	12	12	2	6
Shreveport, La.	39	23	11	1	-	4	2
Tulsa, Okla.	96	65	17	8	2	4	4
MOUNTAIN	636	372	140	58	37	29	28
Albuquerque, N.Mex.	70	35	24	7	3	1	3
Colo. Springs, Colo.	38	27	5	3	2	1	5
Denver, Colo.	125	75	23	14	5	8	2
Las Vegas, Nev.	94	61	20	11	1	1	5
Ogden, Utah	27	15	4	4	2	2	3
Phoenix, Ariz.	115	72	22	3	10	8	3
Pueblo, Colo.	26	12	8	2	4	-	2
Salt Lake City, Utah	53	28	8	6	5	6	3
Tucson, Ariz.	88	47	26	8	5	2	2
PACIFIC	1,888	1,191	384	188	66	56	91
Berkeley, Calif.§	19	14	2	1	1	1	-
Fresno, Calif.	76	46	16	8	2	4	5
Glendale, Calif.	25	21	2	2	-	-	2
Honolulu, Hawaii	69	50	13	4	2	-	5
Long Beach, Calif.	65	44	14	2	1	4	8
Los Angeles, Calif.	549	345	101	62	29	10	17
Oakland, Calif.	88	53	20	6	4	5	3
Pasadena, Calif.	23	16	3	2	1	1	1
Portland, Oreg.	113	77	25	6	2	3	3
Sacramento, Calif.	124	71	32	14	5	2	9
San Diego, Calif.	170	104	28	20	5	13	11
San Francisco, Calif.	148	88	30	23	4	3	5
San Jose, Calif.	155	100	37	12	2	4	12
Seattle, Wash.	161	104	33	18	1	5	6
Spokane, Wash.	60	36	14	4	4	1	3
Tacoma, Wash.	43	22	14	4	3	-	1
TOTAL	12,048	7,521	2,569	1,077	445	430	498

†† Total includes unknown ages.

* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

** Pneumonia and influenza.

† Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

§ Data not available. Figures are estimates based on average of past 4 weeks.

Influenza — Continued

National data on influenza activity for the 1985-1986 season were obtained from four major sources: (1) weekly reports of the number of respiratory specimens tested and the number and types of influenza virus isolates identified by 63 collaborating state, county, city, or military laboratories; (2) weekly reports of mortality from 121 cities, including deaths associated with P&I, an index that has historically reflected seasonal influenza-attributable mortality; (3) weekly semiquantitative estimates from each state health department of the extent of influenza-like morbidity indicated by its statewide surveillance system; and (4) weekly reports from approximately 125 physician members of the American Academy of Family Physicians Research Panel who recorded the number of patients seen in their offices with influenza-like illnesses. In addition, CDC also received spontaneous reports of unusual influenza cases and outbreaks from a variety of sources.

The first influenza isolates were type A(H3N2) strains from sporadic cases in Texas and Alaska in September and single isolates from Rochester, New York, and Houston, Texas, in October. Single isolates of type A(H1N1) and type B viruses were also reported in October from Hawaii and Houston, respectively. In mid-November, Alaska began reporting outbreaks of influenza-like illness initially caused by type A(H3N2) viruses but later associated with an increasing proportion of influenza B viruses. The level of activity in Alaska increased to widespread outbreaks by late November and remained widespread until early January. Although Hawaii began reporting influenza outbreaks associated with type A(H3N2) in late December, general increases in influenza activity in the nation did not occur until January, when outbreaks of influenza B, particularly in schools, rapidly increased. Further spread of type A(H3N2) virus also occurred, and by the end of January, when 18 states were reporting regional or widespread outbreaks of influenza-like illness, type B viruses had been identified in 31 states, and type A(H3N2), in 19 states.

Virus isolations peaked in early February in parallel with the peak in reports of influenza morbidity from physicians (Figure 2). Activity began to decline in late February and decreased to preseason levels early in April.

A total of 2,313 isolates were reported by the collaborating laboratories, more than for any season in the last 10 years (Figure 3). By the end of the season, type B virus had been isolated from every state and the District of Columbia (Figure 4). Type B virus accounted for 75.7%, and type A(H3N2) virus, for 24.2%, of the reported isolates. Antigenic analysis of influenza B isolates revealed variation from prior strains (*2*). As in 1984-1985, type A(H1N1) viruses were isolated rarely—from a few individuals with sporadic cases in Texas and from one person in Hawaii. Only 3.9% of type B viruses reported by the collaborating laboratories were isolated from persons over 64 years of age, compared with 20.7% of type A(H3N2) viruses (Table 2).

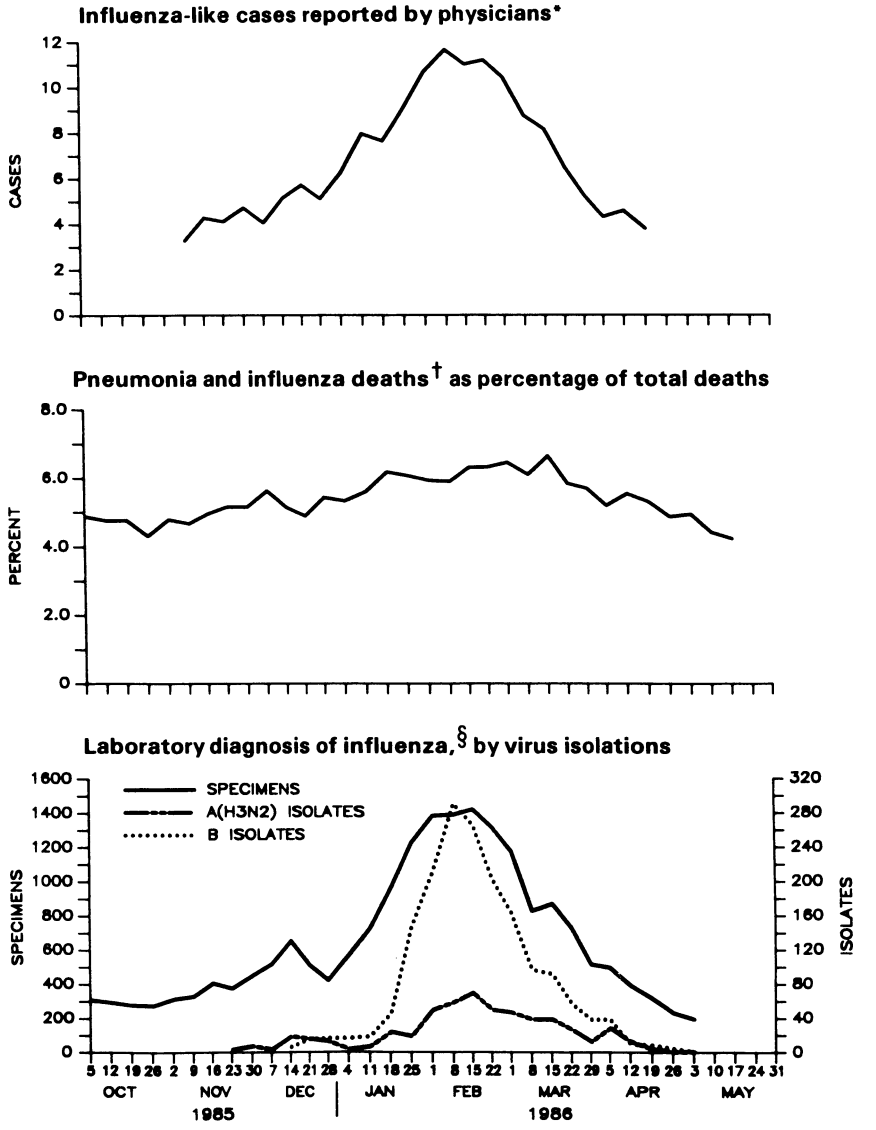
By the end of the season, 43 states and the District of Columbia had reported widespread or regional outbreaks (Figure 5), compared with the 36 and 37 states reporting outbreaks during the two preceding seasons. P&I deaths reported for surveillance purposes by the 121 cities peaked at 6.3% of total deaths in late February, lower than the peak of 7.2% for the previous season, when type A(H3N2) viruses predominated (Figure 2).

Influenza outbreaks in nursing homes were caused both by types A(H3N2) and B viruses. The relative frequency of these virus types among nursing-home residents is not known, as influenza-like outbreaks in such populations are not routinely reported, and laboratory confirmation is not routinely sought.

Reported by State and Territorial Epidemiologists; State Laboratory Directors; U.S. School of Aerospace Medicine, San Antonio, Influenza Research Center, Baylor College of Medicine, Houston, Brooke Army Medical Center, Fort Sam Houston, Texas; Milwaukee Health Dept Virus Laboratory, Wisconsin; Allegheny County Health Laboratory, Pittsburgh, Pennsylvania; Sunrise Hospital Virology Laboratory, Las Vegas, Nevada; Virology Section, Children's Hospital, Washington, DC; Montefiore Hospital and Medical Center

Influenza — Continued

FIGURE 2. Indicators of influenza activity, by week — United States, 1985-1986



*Reported to CDC by approximately 125 physician members of the American Academy of Family Physicians. A case was defined as a patient with fever 37.8 C (100 F) or greater and at least cough or sore throat.

†Reported to CDC from 121 cities in the United States. Pneumonia and influenza deaths include all deaths where pneumonia is listed as a primary or underlying cause or where influenza is listed on the death certificate.

§Reported to CDC by WHO Collaborating Laboratories (including military sources).

Influenza — Continued

FIGURE 3. Isolation of influenza viruses reported to CDC by collaborating civilian and military laboratories — United States, 1976-1986

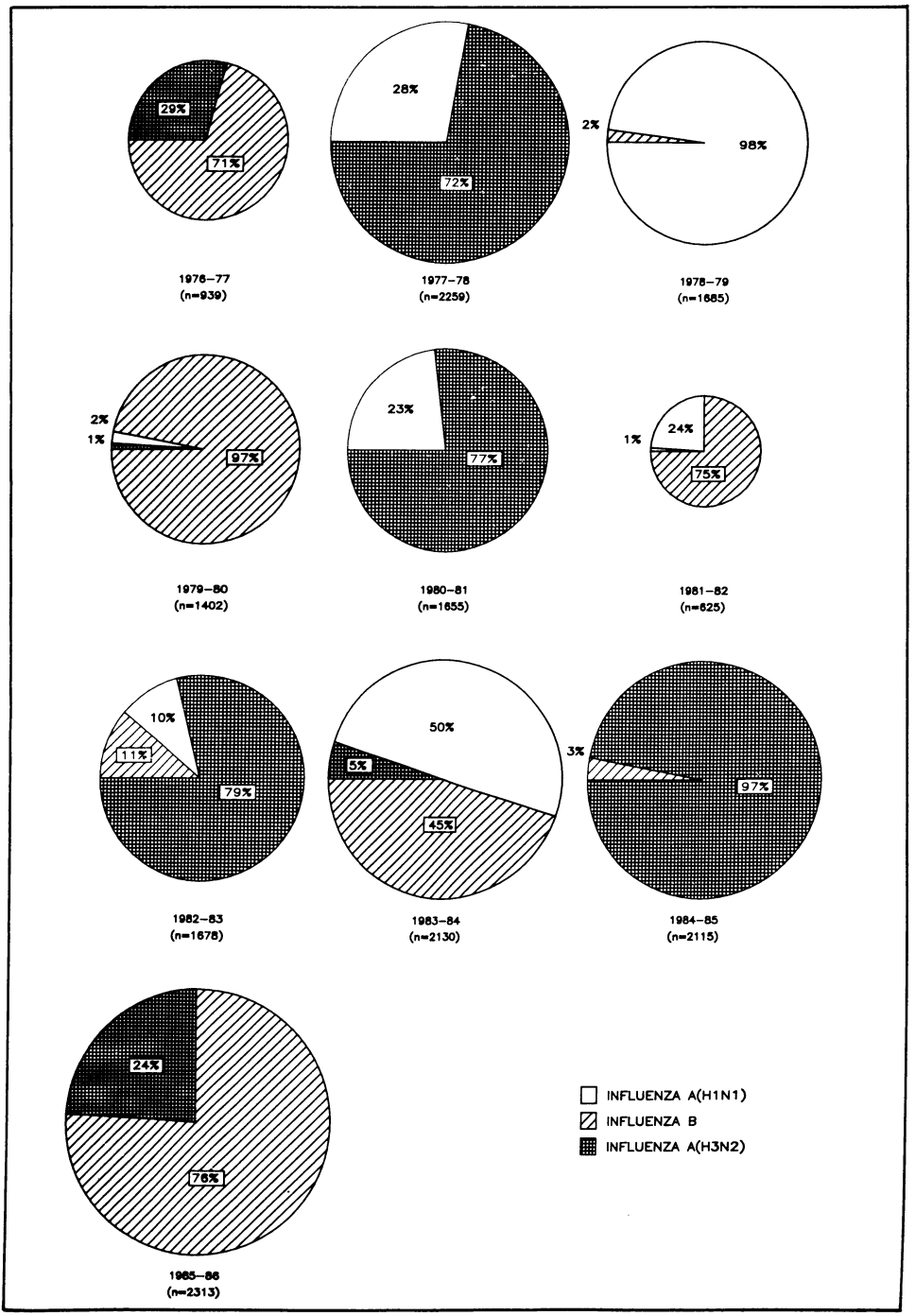
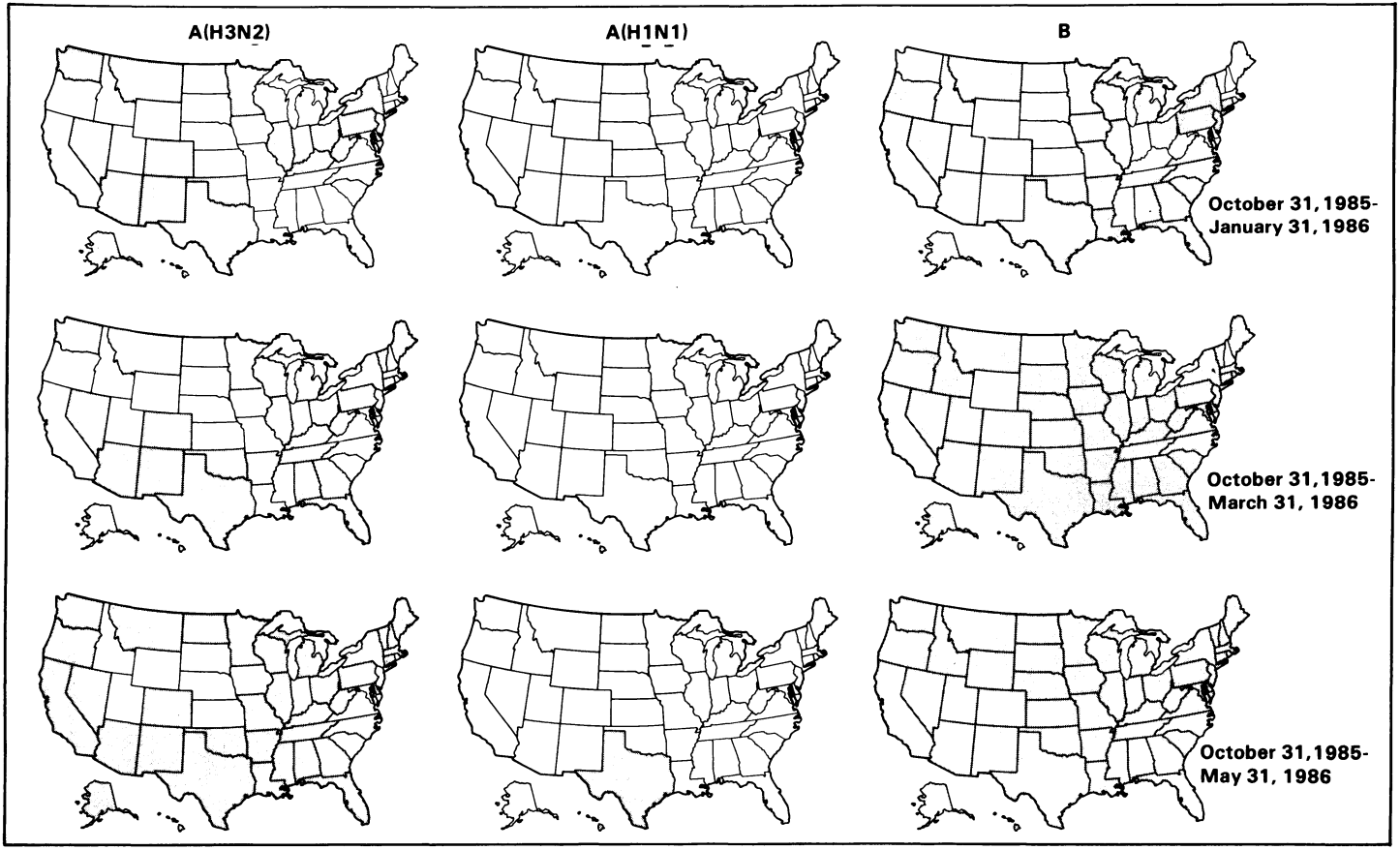


FIGURE 4. Cumulative summary of states with influenza virus isolates reported, by date of first official notification — United States, 1985-1986 season



Influenza — Continued

Virus Laboratory, Kings County Hospital, New York City, Nassau County Medical Center Virology Laboratory, East Meadow, Erie County Medical Center Virology Laboratory, Buffalo, University of Rochester Medical Center, Rochester, New York; Charity Hospital Virology and Rickettsial Laboratory, New Orleans, Louisiana; Mayo Clinic Virology Laboratory, Rochester, Minnesota; Veterans Administration Hospital Virus Laboratory, West Haven, Connecticut; Dept of Pediatrics, University of Chicago, Illinois; University of Arizona Health Svc Center Virology Laboratory, Tucson; Letterman Army Medical Center, San Francisco, Los Angeles County Health Dept Virology Laboratory, Los Angeles, Public Health Laboratory, San Diego, California; University of Colorado Medical Center Virus Laboratory, Denver, Virology Div, Children's Orthopedic Hospital, Seattle, Washington; participating physicians of the American Academy of Family Physicians; Statistical Svcs Br, Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office, Influenza Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

References

1. CDC. Toxic shock syndrome associated with influenza—Minnesota. MMWR 1986;35:143-4.
2. CDC. Update: influenza activity—United States—and influenza type B virus drift. MMWR 1986;35: 92-4.

FIGURE 5. Highest level of influenza morbidity reported, by state — United States, November 1985-June 1986

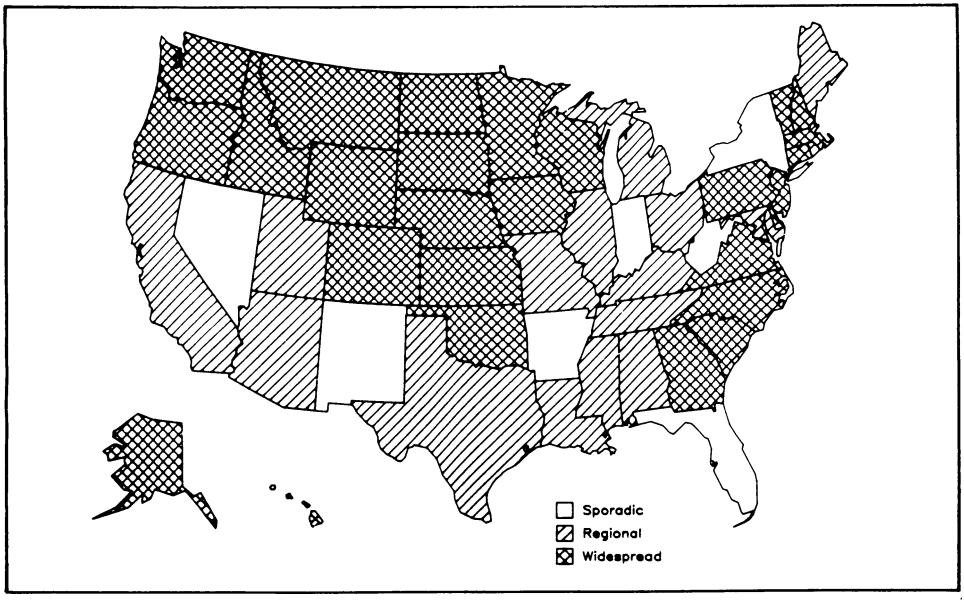
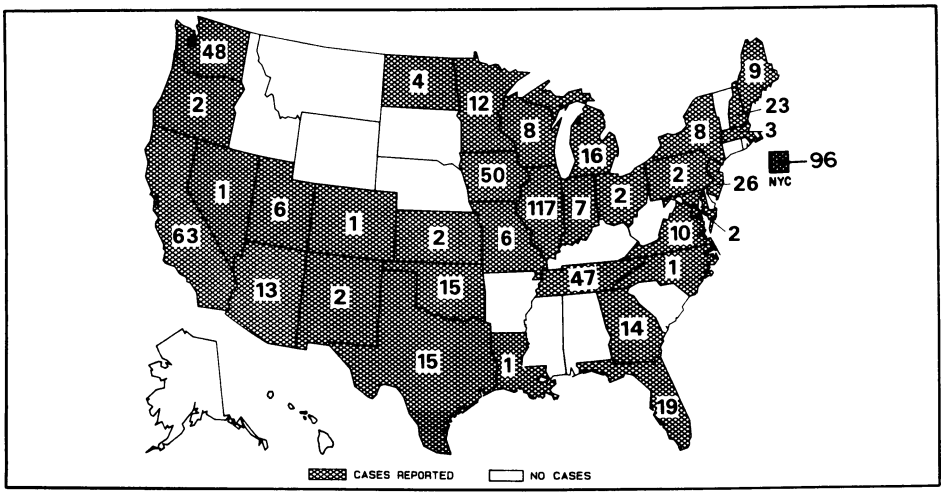


TABLE 2. Specimens tested and influenza viruses isolated as reported to CDC by collaborating laboratories — United States, October 1985-May 1986

Age group (yrs.)	Laboratory report (no. [%])							
	Specimens tested		Type A(H1N1)		Type A(H3N2)		Type B	
< 20	11,007	(55.4)	1	(100.0)	216	(38.6)	941	(53.7)
20-64	4,845	(24.4)	0	(0.0)	114	(20.4)	485	(27.7)
> 64	1,214	(6.1)	0	(0.0)	116	(20.7)	68	(3.9)
Not specified	2,820	(14.2)	0	(0.0)	114	(20.4)	258	(14.7)
Total	**19,886**	**(100.0)**	**1**	**(100.0)**	**560**	**(100.0)**	**1,752**	**(100.0)**

FIGURE I. Reported measles cases — United States, weeks 25-28, 1986



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The data in this report are provisional, based on weekly reports 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. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report,* Centers for Disease Control, Atlanta, Georgia 30333.

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