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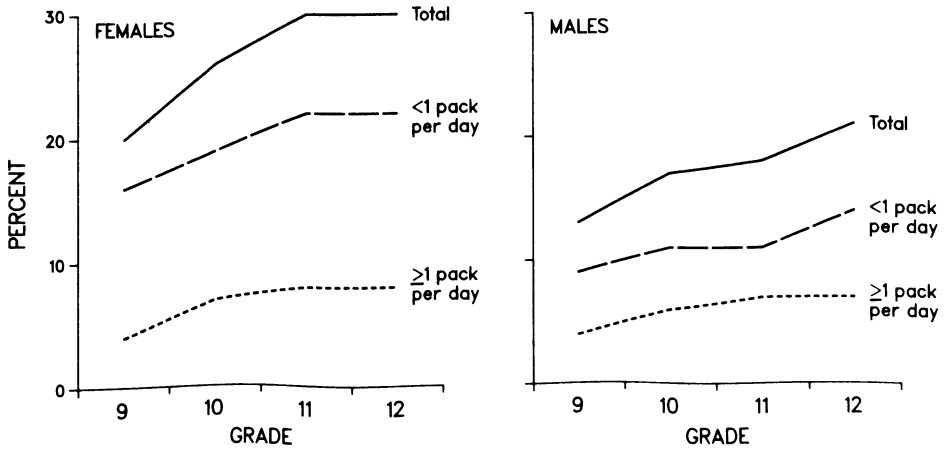
Perspectives in Disease Prevention and Health Promotion

Cigarette Smoking among Public High School Students — Rhode Island

From July 1983 through December 1984, as part of a health-risk survey, information was obtained from 11,657 Rhode Island public high school students about their cigarette smoking practices. Overall, 22.3% of these students reported that they smoked cigarettes. Cigarette smoking increased by grade and was more common among females (26.5%) than among males (17.5%). The difference between females and males was due primarily to a larger proportion of females who reported smoking less than one pack per day (Figure 1).

During this period, 19 (63.3%) of the 30 public high schools in Rhode Island took part in this health-risk assessment program. The ongoing program provides both prevalence estimates of cigarette smoking and other health-related behaviors and counseling to students with unhealthy behaviors. More than 99% of the students attending the 19 schools participated in the program. The 11,657 participants constituted 26.3% of all public high school students in Rhode Island. The participating students were demographically similar to all Rhode Island public high school students but were somewhat more likely to be female, other than white, and from low-income communities (Table 1).

FIGURE 1. Prevalence of cigarette smoking among public high school students, by grade and sex — Rhode Island, 1983-1984



Cigarette Smoking — Continued

Reported by HD Scott, MD, L Marciano, MEd, R Cabral, PhD, Office of Health Promotion, Rhode Island Dept of Health; Behavioral Epidemiology and Evaluation Br, Div of Health Education, Center for Health Promotion and Education, CDC.

Editorial Note: Cigarette smoking is presently the largest single cause of preventable morbidity and mortality in the United States (*1*). The prevalence of smoking has slowly declined over the past 2 decades, and over 30 million Americans have quit smoking since the first Surgeon General's report on smoking and health was released in 1964 (*2*). It has been estimated that, from 1964 to 1978, more than 200,000 premature deaths were prevented because some people stopped smoking, and others did not start (*3*). Nevertheless, approximately one-third of the U.S. adult population still smokes cigarettes, and there is some evidence that the prevalence of smoking is actually increasing among young white females (*4*). In addition, it has been estimated that at least 12 million people used smokeless tobacco (snuff and chewing tobacco) in the United States in 1985 (*5*). Use is increasing, especially among male adolescents and young male adults. Therefore, continued and even greater efforts to prevent the initiation of any tobacco use and to assist in the cessation of tobacco use are needed.

Smoking is an addictive behavior. Experimentation and adoption of the habit usually occur during adolescence; therefore, prevention programs frequently focus on this group. Rhode Island's data-collection system represents one approach to collecting data on smoking habits

TABLE 1. Demographic characteristics of adolescents completing health-risk assessments and of all students enrolled in public high schools — Rhode Island, July 1983-December 1984

Characteristic	Percentage of health-risk assessment respondents (n = 11,657)	Percentage of all Rhode Island public high school students* (n = 44,404)
Sex		
Male	46.4	49.5
Female	53.6	50.5
Grade		
9th	22.1	26.6
10th	26.3	25.7
11th	23.9	24.4
12th	27.8	23.4
Race/ethnicity		
White	83.2	91.3
Black	5.5	4.4
Hispanic	4.0	2.5
Asian	2.8	1.5
Native American	1.2	0.3
Other	3.4	—
Income level†		
High	21.5	23.6
Medium	37.3	42.0
Low	41.2	34.4

*Data from the annual school census of the Rhode Island Department of Education, 1984.
†Income level based on median income for the community in which the high school is located, using 1980 U.S. Census data.

Cigarette Smoking — Continued

of teenagers. The data are self-reported and may underestimate the true prevalence of cigarette smoking. Although not a state-wide random sample, the demographic characteristics of the participants are similar to those of all public high school students, and the data probably are a good representation for the state-wide public school population.

The National Institute on Drug Abuse (NIDA) collects data each year on a national cross-section of public and private high schools (*6*). Among high school seniors in 1983, NIDA estimates a prevalence of daily cigarette smoking of 19% for males and 22% for females. This gender difference is less than that seen in Rhode Island. However, the categories of number of cigarettes smoked in the NIDA survey and the Rhode Island program are different, so direct comparison is not possible.

The Rhode Island data confirm that smoking among high school students is more common among young females than young males. Continued efforts to prevent the onset of smoking among young people are necessary. Because of the growing use of smokeless tobacco among children and adolescents (*5*), these efforts should also be directed toward preventing the use of smokeless tobacco products in this age group. The Rhode Island program is an example of one method to monitor the overall effect of these efforts.

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Deaths due to Chronic Obstructive Pulmonary Disease and Allied Conditions

In 1984, chronic obstructive pulmonary disease (COPD) and allied conditions were the eleventh leading cause of years of potential life lost before age 65 (YPLL) in the United States, accounting for 123,000 YPLL (see Table V, page 517). The category "COPD and allied conditions" is composed of a variety of diseases, including bronchitis, emphysema, asthma, bronchiectasis, extrinsic allergic alveolitis, and chronic airway obstruction not specifically labeled as one of the preceding conditions. Chronic airway obstruction was responsible for the most deaths and YPLL in 1983 (Table 2). Because the causes of death in this category are probably the same as in the bronchitis and emphysema category, for this report, those three categories are combined as COPD.

From 1979 through 1983, the last year for which age-, sex-, race-, and cause-specific mortality data are available, both YPLL and YPLL rates per 100,000 population for COPD did not vary appreciably (Figure 2). Rates for males were roughly twice those for females. White

Pulmonary Disease — Continued

males and males of all other races had similar rates, whereas the rate for white females consistently exceeded the rate for females of other races. In contrast, YPLL rates for asthma increased between 1979 and 1983 (Figure 3). Rates for black and other males and females were higher and increased more than the rates for whites throughout the 5-year period.

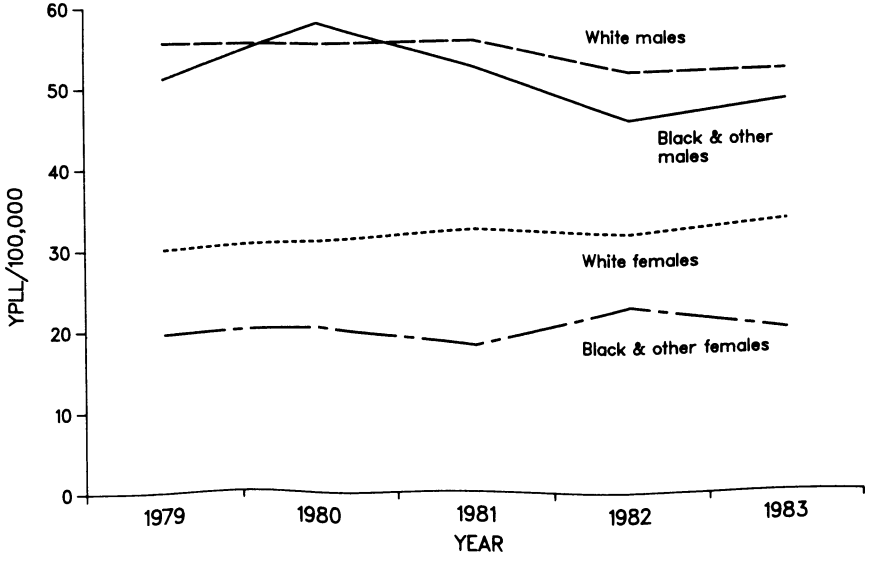
Reported by Behavioral Epidemiology and Evaluation Br, Div of Health Education, Center for Health Promotion and Education, CDC.

TABLE 2. Number of deaths and years of potential life lost before age 65 (YPLL) due to chronic obstructive pulmonary disease and allied conditions — United States, 1983

Condition (ICD code)*	Deaths before age 65 No.	(%)	YPLL No.	(%)	Rate†
Bronchitis and emphysema (490-492.9)	3,494	(26.2)	30,686	(24.8)	14.8
Asthma (493)	1,742	(13.1)	34,320	(27.7)	16.6
Other chronic lung conditions (494-495.9)	184	(1.4)	2,586	(2.1)	1.2
Chronic airway obstruction (496)	7,900	(59.3)	56,368	(45.5)	27.2
Total	**13,320**	**(100.0)**	**123,960**	**(100.0)**	**59.9**

*International Classification of Diseases, Ninth Revision.
†Per 100,000 population.

FIGURE 2. Rate of years of potential life lost before age 65 (YPLL) due to chronic obstructive pulmonary disease — United States, 1979-1983



Pulmonary Disease — Continued

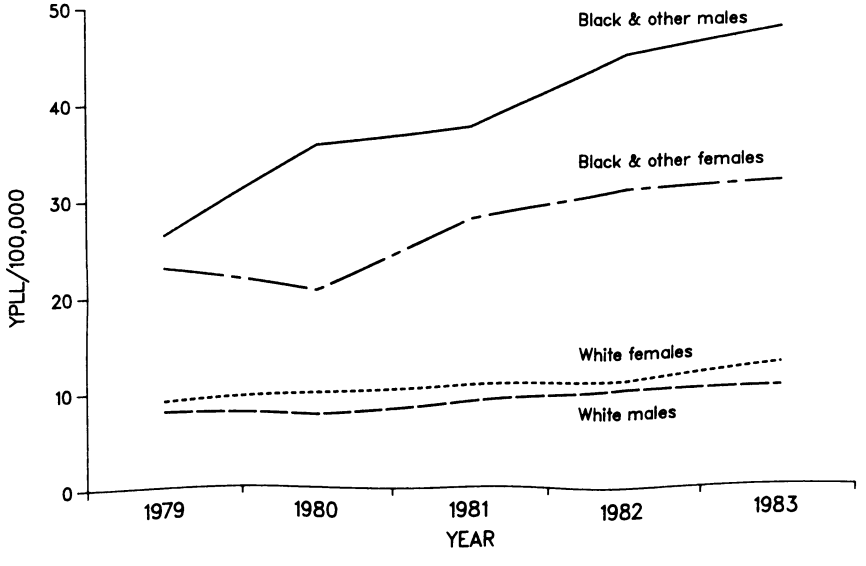
Editorial Note: COPD is an important health problem for Americans, causing an estimated 4.7 million hospital days per year and $6.5 billion in direct and indirect costs (*1*). Smoking accounts for 80%-90% of COPD mortality for both men and women. The total death rate and YPLL rate are higher for men than for women and higher for whites than for other races. These findings probably reflect previous differences in smoking patterns among these groups. The risk of COPD increases with the dose of exposure, i.e., number of cigarettes smoked per day, and the duration of smoking. Within a few years after beginning to smoke, smokers have a higher prevalence of abnormal function of the small airways than nonsmokers, and the severity of dysfunction increases with years of smoking. Smoking cessation leads to a decreased risk of mortality; however, even 20 years after cessation, the risk of death from COPD for former smokers is not as low as for persons who have never smoked (*2*).

The Surgeon General's report in 1979 indicated that inhaled tobacco smoke can trigger or aggravate asthmatic symptoms in persons with asthma (*3*). This offers support for the cessation of smoking and the avoidance of passive smoke exposure in asthmatic individuals.

Different mortality measures can emphasize different public health perspectives. COPD is primarily a disease of older persons, while asthma is more likely to affect younger persons: in 1983, 18.9% of asthma-related deaths occurred among persons under 45 years of age, in contrast to only 0.7% of COPD deaths. Total deaths and crude death rates reflect the total impact for a specific cause of death for all age groups. YPLL and YPLL rates, in contrast, may emphasize deaths among younger persons, making the contribution of asthma to mortality more apparent. For example, a person who dies at age 30 from asthma contributes 35 years to the total YPLL, whereas a person who dies at age 60 from COPD contributes 5 years to the total YPLL. The death rate for persons of all ages for COPD is 18 times greater than that for asthma, whereas the YPLL rate for COPD is 2.5 times greater.

YPLL rates for asthma appear to have increased over the 5-year period, especially among black and other males. This suggests the need to further examine factors such as: (1) im-

FIGURE 3. Rate of years of potential life lost before age 65 (YPLL) due to asthma — United States, 1979-1983



Pulmonary Disease — Continued

proved diagnosis of asthma over time; (2) an actual increase in the asthma mortality rate among younger persons; or (3) changes in the effectiveness of treatment for life-threatening asthma attacks.

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Current Trends

Antigenic Variation of Recent Influenza A(H1N1) Viruses

Antigenic analysis of recent influenza A(H1N1) viruses, including those reported from several countries in Southeast Asia (*1*), has detected antigenic drift from the previously prevalent strain related to A/Chile/1/83(H1N1). The antigenic variation has been seen both in reciprocal hemagglutination-inhibition tests using animal antisera and in comparisons of antibody levels against the newer variants in persons immunized with vaccine containing A/Chile/1/83 antigen.

Animal antiserum to A/Chile/1/83 is less effective in inhibiting the newer A(H1N1) variants than in inhibiting A/Chile/1/83-like viruses, although the degree of reactivity varies among isolates of the newer A(H1N1) variants (Table 3). In contrast, antisera prepared against representative new isolates (e.g., A/Singapore/6/86, A/Taiwan/1/86) react well with all other recent isolates but extremely poorly with A/Chile/1/83. In tests with animal antisera, the new variants also differed from other variants that have cocirculated with A/Chile/1/83 since 1983-1984 (e.g., A/Victoria/7/83, A/Dunedin/27/83).

TABLE 3. Hemagglutination-inhibition reactions* of influenza A(H1N1) viruses with postinfection ferret antisera

	Sera				
Antigen	**A/Chile/1/83**	**A/Dunedin/27/83**	**A/Victoria/7/83**	**A/Singapore/6/86**	**A/Taiwan/1/86**
A/Chile/1/83	**160**	20	20	< 10	< 10
A/Dunedin/27/83	40	**640**	20	10	< 10
A/Victoria/7/83	320	80	**1,280**	160	40
A/Singapore/6/86	80	40	40	**640**	1,280
A/Taiwan/1/86	40	40	20	320	**2,560**
A/Beijing/1/86	20	40	20	640	1,280

*Titers are the reciprocal of antiserum dilutions; homologous titers appear in bold type. When comparing reactions of sera with different antigens, fourfold or greater differences are considered experimentally significant.

Influenza Viruses — Continued

Studies of antibody response in recipients of last year's influenza vaccine containing A/Chile/1/83 antigen demonstrate the difference of the new variants (Table 4). Approximately 80% of adult vaccinees developed titers to A/Chile/1/83 of 160 or higher and had a postvaccination geometric mean titer (GMT) of 320. In contrast, only 15%-30% of the vaccinees developed the same titers to the new variants, and the postvaccination GMT was about sixfold lower. However, since postvaccination titers of 40 or greater have been associated with reduced influenza infection and illness, it is possible that the A/Chile/1/83 antigen in the 1986-1987 trivalent vaccine will provide at least partial protection against the new variants.

Through July 1986, influenza A(H1N1) variants had been detected among virus isolates from Hong Kong, Malaysia, and New Zealand; from an imported case in England believed to have originated in India; and among viruses from a few outbreaks and sporadic cases of influenza A(H1N1) that occurred in Japan last winter. The presence of an A(H1N1) variant has also been reported from the Soviet Union, where last winter's epidemic was primarily caused by influenza B and influenza A(H3N2) viruses. Recently, influenza A viruses, some confirmed as A(H1N1) strains, have also been reported in Australia, Thailand, American Samoa, and Palau, Micronesia. Influenza outbreaks in Palau and elsewhere in the U.S. Pacific Trust Territories are presently being investigated.

Reported by National Influenza Centers in collaboration with the World Health Organization, Geneva; WHO Collaborating Centre for Influenza, Influenza Br, Center for Infectious Diseases, CDC.

Editorial Note: After the World Health Organization (WHO) Collaborating Centres for Influenza detected variants of influenza A(H1N1) viruses among isolates submitted for reference analysis from influenza outbreaks in the People's Republic of China, Malaysia, Singapore, and Taiwan, data were reported indicating that related strains had been detected at the end of an influenza A(H3N2) epidemic in Japan last winter. The most recent reports suggest that the variant may have been introduced into other countries widely separated in the Pacific Basin from Southeast Asia (e.g., Australia, New Zealand, and several islands in the U.S. Pacific Trust Territories) and possibly India. Reports of outbreaks in Southeast Asia indicate primarily children and young adults have been affected, suggesting that the general epidemiologic characteristics of the new variant are similar to those of other type A(H1N1) variants occurring since 1977.

Based on the available reports, WHO has suggested that national health authorities consider the addition of the new type A(H1N1) virus to other strains already recommended for incorporation in 1986-1987 influenza vaccines, either as an extra component in current trivalent vaccines or as a monovalent vaccine (*2*). In the United States, the vaccine production

TABLE 4. Hemagglutination-inhibition serum antibody response to influenza vaccine in immunized adults — United States, fall 1985*

	Prevaccine sera				Postvaccine sera			
	Cumulative % with titer				Cumulative % with titer			
Antigen A(H1N1)	≥ 10	≥ 40	≥ 160	GMT	≥ 10	≥ 40	≥ 160	GMT
A/Chile/1/83	82	58	15	33	100	96	80	320
A/Singapore/6/86	87	20	2	18	98	80	15	50
A/Taiwan/1/86	49	15	4	10	93	75	29	56

*Fifty-five adults received trivalent split vaccine containing 15 μg each of A/Phillippines/2/82, A/Chile/1/83, and B/USSR/100/83.

Influenza Viruses — Continued

schedule permits manufacture only of a supplemental monovalent vaccine with a new type A(H1N1) virus. After consideration of available data, the U.S. Public Health Service is recommending production and use of such a vaccine to maximize protection against the new variant, particularly for high-risk children and young adults who appear to be most susceptible to illness caused by current type A(H1N1) viruses (*3*). If outbreaks of influenza-like illnesses occur in the United States early this fall, prompt laboratory diagnosis will be necessary to establish whether they are due to influenza A viruses and to guide appropriate use of the available antiviral agent, amantadine hydrochloride (*4*).

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

Disease	32nd Week Ending			Cumulative, 32nd Week Ending		
	Aug. 9, 1986	Aug. 10, 1985	Median 1981-1985	Aug. 9, 1986	Aug. 10, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	371	155	N	7,631	4,632	N
Aseptic meningitis	354	349	366	4,188	3,780	3,873
Encephalitis: Primary (arthropod-borne & unspec.)	28	28	35	543	617	644
Post-infectious	3	-	2	67	86	62
Gonorrhea: Civilian	18,527	16,871	19,424	527,166	530,774	543,763
Military	259	285	575	10,145	12,785	14,891
Hepatitis: Type A	385	393	426	13,244	13,228	13,228
Type B	463	444	489	15,754	15,430	14,397
Non A, Non B	65	58	N	2,168	2,511	N
Unspecified	91	110	126	2,877	3,495	4,383
Legionellosis	21	21	N	380	437	N
Leprosy	-	23	3	168	241	155
Malaria	21	18	23	591	595	595
Measles: Total*	83	75	29	4,847	2,236	2,172
Indigenous	81	54	N	4,615	1,878	N
Imported	2	21	N	232	358	N
Meningococcal infections: Total	31	16	35	1,705	1,612	1,916
Civilian	31	16	35	1,703	1,606	1,912
Military	-	-	-	2	6	9
Mumps	124	14	25	3,153	2,089	2,335
Pertussis	156	85	61	1,746	1,327	1,254
Rubella (German measles)	8	19	10	368	466	738
Syphilis (Primary & Secondary): Civilian	564	518	662	15,877	16,266	18,411
Military	2	-	4	107	113	232
Toxic Shock syndrome	2	11	N	214	245	N
Tuberculosis	546	325	448	13,241	12,819	14,116
Tularemia	7	6	7	76	107	141
Typhoid fever	16	5	9	171	205	229
Typhus fever, tick-borne (RMSF)	29	24	34	450	398	688
Rabies, animal	85	113	136	3,338	3,257	3,898

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis (Hawaii 1)	23
Botulism: Foodborne (Tex. 1)	6	Plague	4
Infant (Calif. 1)	29	Poliomyelitis, Paralytic	-
Other	1	Psittacosis (Ohio 1, Ga. 1, Fla. 1, Calif. 2)	64
Brucellosis (Colo. 1)	41	Rabies, human	-
Cholera	-	Tetanus (Upstate N. Y. 1, Ohio 1)	36
Congenital rubella syndrome	2	Trichinosis	20
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine) (Tex. 3)	32
Diphtheria	-		

*One of the 83 reported cases for this week was 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 August 9, 1986, and August 10, 1985 (32nd Week)

Reporting Area	AIDS	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy
			Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	7,631	354	543	67	527,166	530,774	385	463	65	91	21	168
NEW ENGLAND	347	12	15	3	12,657	14,456	9	26	2	2	1	6
Maine	12	1	-	-	552	664	-	4	1	-	-	-
N H	8	-	2	-	326	340	-	1	-	-	-	-
Vt	3	1	2	2	162	187	-	1	1	-	1	-
Mass	187	4	3	-	5,205	5,627	5	11	-	2	-	6
R I	19	-	-	-	1,034	1,122	2	1	-	-	-	-
Conn	118	6	8	1	5,378	6,516	2	8	-	-	-	-
MID ATLANTIC	2,951	42	67	6	90,311	77,165	12	30	1	14	-	11
Upstate N Y	289	20	26	4	10,451	10,152	4	15	-	-	-	1
N Y City	1,983	11	14	-	52,938	38,742	-	1	1	14	-	9
N J	477	11	10	-	11,641	11,891	8	14	-	-	-	-
Pa	202	-	17	2	15,281	16,380	-	-	-	-	-	1
E N CENTRAL	477	103	143	9	68,358	70,965	11	34	5	6	2	4
Ohio	100	31	42	2	17,083	17,422	5	15	2	2	2	-
Ind	44	14	34	3	7,587	7,379	-	3	-	1	-	-
Ill	237	35	30	3	19,357	19,637	1	8	2	2	-	3
Mich	78	23	31	1	21,635	19,910	5	8	1	1	-	1
Wis	18	-	6	-	2,696	6,617	-	-	-	-	-	-
W N CENTRAL	144	5	21	8	22,975	24,474	9	11	1	1	3	2
Minn	56	1	11	-	3,231	3,573	3	2	-	1	-	1
Iowa	10	1	7	-	2,299	2,676	-	1	1	-	-	-
Mo	49	1	-	-	11,502	11,680	4	6	-	-	2	-
N Dak	2	-	-	-	193	162	-	-	-	-	-	-
S Dak	1	-	2	-	468	457	-	-	-	-	1	-
Nebr	6	-	-	1	1,793	2,212	1	-	-	-	-	-
Kans	20	2	1	7	3,489	3,714	1	2	-	-	-	1
S ATLANTIC	941	54	69	23	136,482	137,285	46	96	15	15	11	1
Del	16	-	4	-	2,170	2,462	5	2	1	-	-	-
Md	123	9	22	1	15,857	17,473	2	20	4	2	8	-
D C	132	4	-	1	10,102	9,161	-	-	-	1	1	-
Va	97	8	21	1	11,192	11,447	2	6	1	1	-	1
W Va	5	1	10	-	1,380	1,533	1	-	1	-	-	-
N C	42	7	10	1	21,202	20,999	1	11	2	1	-	-
S C	21	1	-	-	11,974	13,389	-	5	-	-	1	-
Ga	170	8	-	1	23,312	27,647	2	23	-	2	1	-
Fla	335	16	2	18	39,293	33,174	33	29	6	8	-	-
E S CENTRAL	100	44	39	3	43,013	44,827	11	52	3	5	-	1
Ky	19	20	19	1	4,790	5,052	3	6	1	1	-	-
Tenn	53	10	3	1	16,596	17,390	3	26	1	3	-	-
Ala	18	13	16	1	12,315	13,749	3	16	1	1	-	1
Miss	10	1	1	-	9,312	8,636	2	4	-	-	-	-
W S CENTRAL	480	32	71	6	63,386	66,809	73	35	5	17	-	12
Ark	21	1	-	2	5,913	6,508	5	-	-	-	-	-
La	100	-	3	-	11,346	13,241	-	-	-	-	-	1
Okla	27	1	14	-	7,128	7,186	9	8	1	-	-	-
Tex	332	30	54	4	38,999	39,874	59	27	4	17	-	11
MOUNTAIN	198	10	19	1	15,684	16,655	67	42	14	8	3	11
Mont	4	-	-	1	446	445	1	1	-	-	-	-
Idaho	2	-	-	-	519	518	9	6	-	-	-	-
Wyo	4	-	2	-	352	393	-	-	-	-	-	-
Colo	96	2	3	-	4,068	4,953	1	-	-	2	1	3
N Mex	11	2	2	-	1,564	1,881	5	10	1	-	-	-
Ariz	49	6	8	-	5,082	5,000	47	19	10	6	1	5
Utah	10	-	3	-	663	721	-	-	-	-	1	1
Nev	22	-	1	-	2,990	2,744	4	6	3	-	-	2
PACIFIC	1,993	52	99	8	74,300	78,138	147	137	19	23	1	120
Wash	93	4	10	-	5,565	5,707	17	11	3	2	-	14
Oreg	36	-	-	-	3,024	3,814	29	14	-	1	-	-
Calif	1,825	39	87	8	63,148	65,670	100	111	15	20	1	84
Alaska	9	2	2	-	1,705	1,831	-	-	-	-	-	-
Hawaii	30	7	-	-	858	1,116	1	1	1	-	-	22
Guam	-	-	-	-	109	125	-	-	-	-	-	1
P R	75	-	4	-	1,401	2,156	2	4	-	3	-	7
V I	3	U	-	-	139	312	U	U	U	U	U	-
Pac Trust Terr	-	-	-	-	264	574	3	-	-	3	-	31
Amer Samoa	-	-	-	-	30	-	2	-	-	-	-	1

N Not notifiable U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 9, 1986, and August 10, 1985 (32nd 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	591	81	4,615	2	232	2,236	1,705	124	3,153	156	1,746	1,327	8	368	466
NEW ENGLAND	30	-	74	-	6	123	120	-	49	-	97	73	-	9	12
Maine	1	-	10	-	-	1	23	-	-	-	2	5	-	-	-
N H	2	-	37	-	-	-	6	-	13	-	46	29	-	1	2
Vt	1	-	-	-	-	-	15	-	2	-	3	3	-	1	-
Mass	15	-	24	-	5	115	26	-	6	-	27	17	-	4	6
R I	4	-	2	-	-	-	15	-	9	-	3	12	-	2	-
Conn	7	-	1	-	1	7	35	-	19	-	16	7	-	1	4
MID ATLANTIC	67	48	1,468	-	21	195	271	2	129	3	123	89	1	31	196
Upstate N Y	24	-	43	-	19	82	91	1	52	1	80	52	1	23	17
N Y City	19	48	527	-	2	59	57	-	5	-	3	9	-	5	155
N J	7	-	876	-	-	27	29	1	33	1	10	3	-	3	11
Pa	17	-	22	-	-	27	94	-	39	1	30	25	-	-	13
E N CENTRAL	38	11	868	-	16	506	229	110	2,150	5	224	242	5	32	26
Ohio	10	-	-	-	10	54	91	-	99	5	92	25	1	1	-
Ind	2	-	11	-	-	56	18	-	31	-	22	11	-	-	1
Ill	14	9	573	-	3	285	64	102	1,587	-	27	28	3	22	10
Mich	11	2	50	-	-	52	52	7	245	-	23	29	1	7	14
Wis	1	-	234	-	3	59	4	1	188	-	60	149	-	2	1
W N CENTRAL	22	-	270	-	17	11	83	-	81	45	145	87	-	10	19
Minn	5	-	45	-	4	6	16	-	1	4	42	25	-	-	2
Iowa	1	-	81	-	1	-	11	-	21	-	11	5	-	1	1
Mo	10	-	25	-	6	2	28	-	15	4	12	20	-	1	7
N Dak	-	-	25	-	1	2	-	-	3	1	4	9	-	1	2
S Dak	-	-	-	-	-	-	4	-	1	1	14	1	-	-	-
Nebr	4	-	-	-	-	-	9	-	-	-	-	4	-	-	-
Kans	2	-	94	-	5	1	15	-	40	35	62	23	-	7	7
S ATLANTIC	73	3	501	1	53	249	319	3	148	18	560	256	-	10	48
Del	1	-	1	-	-	-	2	-	-	-	222	-	-	-	1
Md	12	-	20	-	9	73	44	2	15	-	137	115	-	-	6
D C	1	-	-	1 †	2	7	4	-	-	-	-	1	-	-	-
Va	15	-	35	-	24	24	51	-	29	4	27	8	-	-	2
W Va	4	-	2	-	-	33	3	1	38	2	20	2	-	-	9
N C	4	-	2	-	1	9	55	-	14	5	38	14	-	-	-
S C	5	-	274	-	-	-	29	-	11	-	5	-	-	-	3
Ga	7	-	78	-	14	8	49	-	14	7	90	72	-	-	-
Fla	24	3	89	-	3	95	82	-	27	-	21	44	-	10	27
E S CENTRAL	14	-	56	1	8	4	96	-	23	6	33	17	-	2	2
Ky	4	-	-	1 §	6	2	23	-	5	-	2	3	-	2	2
Tenn	-	-	54	-	1	1	35	-	15	5	12	5	-	-	-
Ala	6	-	-	-	1	-	27	-	2	1	19	6	-	-	-
Miss	4	-	2	-	-	1	11	-	1	-	-	3	-	-	-
W S CENTRAL	58	6	585	-	34	416	147	2	146	20	132	206	-	55	29
Ark	-	-	276	-	2	-	21	-	7	-	8	12	-	-	1
La	8	-	4	-	-	42	21	-	2	-	7	9	-	-	-
Okla	8	-	37	-	2	1	19	N	N	20	89	115	-	-	1
Tex	42	6	268	-	30	373	86	2	137	-	28	70	-	55	27
MOUNTAIN	23	7	295	-	26	490	84	3	201	17	175	102	-	20	4
Mont	-	-	-	-	8	137	8	-	5	-	7	5	-	2	-
Idaho	1	-	1	-	-	135	2	-	4	2	33	6	-	-	1
Wyo	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-
Colo	7	-	2	-	5	8	13	-	11	5	48	32	-	1	-
N Mex	2	1	32	-	7	5	6	N	N	-	16	10	-	-	2
Ariz	8	5	252	-	6	205	19	3	167	10	46	24	-	2	1
Utah	2	1	7	-	-	-	9	-	10	-	21	25	-	12	-
Nev	3	-	1	-	-	-	25	-	4	-	3	-	-	3	-
PACIFIC	266	6	498	-	51	242	356	4	226	42	257	255	2	199	130
Wash	20	3	125	-	25	42	52	-	7	10	78	46	-	11	11
Oreg	15	-	3	-	4	3	22	N	N	-	10	21	-	1	1
Calif	230	3	351	-	21	178	269	1	196	32	159	154	2	183	75
Alaska	-	-	-	-	-	-	11	-	6	-	2	27	-	-	1
Hawaii	1	-	19	-	1	19	2	3	17	-	8	7	-	4	42
Guam	1	-	4	-	1	11	1	-	4	-	-	-	-	3	2
P R	4	-	33	-	-	50	2	1	21	-	11	8	-	58	24
V I	-	U	-	U	-	10	-	U	13	U	-	-	U	-	-
Pac. Trust Terr	-	-	-	-	-	-	1	-	7	-	-	-	-	1	-
Amer Samoa	-	-	2	-	-	-	-	-	3	-	-	-	-	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 August 9, 1986, and August 10, 1985 (32nd 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	15,877	16,266	2	13,241	12,819	76	171	450 +27	3,338
NEW ENGLAND	299	338	-	409	432	1	10	5	3
Maine	15	9	-	30	35	-	-	-	-
N H	10	7	-	10	15	-	-	-	-
Vt	6	4	-	13	4	-	-	-	-
Mass	160	174	-	213	257	1	8	2	-
R I	16	11	-	27	35	-	-	2	1
Conn	92	133	-	116	86	-	2	1	2
MID ATLANTIC	2,283	2,131	-	2,699	2,365	1	14	15 +2	395
Upstate N Y	99	149	-	391	400	-	2	6 1	50
N Y City	1,295	1,322	-	1,419	1,172	-	6	5 1	-
N J	422	413	-	477	317	1	5	1	12
Pa	467	247	-	412	476	-	1	3	333
E N CENTRAL	643	704	-	1,582	1,589	-	13	50 +2	79
Ohio	84	92	-	280	293	-	2	48 2	9
Ind	76	63	-	168	199	-	2	-	12
Ill	338	362	-	691	689	-	2	1	23
Mich	111	146	-	369	311	-	5	1	16
Wis	34	41	-	74	97	-	2	-	19
W N CENTRAL	138	138	-	389	342	21	7	28 +1	536
Minn	24	28	-	97	70	-	1	1	60
Iowa	6	15	-	32	42	1	-	1	122
Mo	76	69	-	191	160	17	5	12	60
N Dak	2	2	-	6	6	-	-	1	116
S Dak	2	4	-	16	18	2	-	5	115
Nebr	11	7	-	7	13	1	-	4 1	22
Kans	17	13	-	40	33	-	1	4	41
S ATLANTIC	4,785	4,737	-	2,539	2,615	8	21	214 +19	786
Del	31	24	-	27	27	-	-	1	-
Md	271	259	-	185	238	2	5	23 2	387
D C	191	218	-	87	101	-	2	-	24
Va	228	187	-	211	230	2	5	32 7	113
W Va	14	12	-	73	67	-	3	7	21
N C	321	415	-	350	327	1	3	75 5	6
S C	407	494	-	328	336	-	-	55 3	38
Ga	927	830	-	390	413	3	-	20 2	117
Fla	2,395	2,298	-	888	876	-	3	1	80
E S CENTRAL	1,050	1,230	-	1,137	1,131	7	1	55 +1	215
Ky	51	37	-	270	246	3	-	11	57
Tenn	380	367	-	328	325	3	-	24 1	97
Ala	337	406	-	356	352	1	-	12	59
Miss	282	420	-	183	208	-	1	8	2
W S CENTRAL	3,228	3,762	-	1,690	1,574	34	13	76 +2	502
Ark	165	193	-	221	170	24	-	3	114
La	547	655	-	279	221	1	1	-	14
Okla	85	106	-	161	167	6	1	63 2	43
Tex	2,431	2,808	-	1,029	1,016	3	11	10	331
MOUNTAIN	373	433	1	306	336	3	8	7 =same	468
Mont	6	3	1	16	46	-	1	3 -1	162
Idaho	8	4	-	12	15	-	-	-	1
Wyo	-	6	-	-	5	-	-	1	211
Colo	93	105	-	22	43	-	1	3 +1	9
N Mex	46	72	-	66	61	1	-	-	4
Ariz	150	217	-	153	137	-	3	-	76
Utah	10	5	-	20	7	1	2	-	1
Nev	60	21	-	17	22	1	1	-	4
PACIFIC	3,078	2,793	1	2,490	2,435	1	84	-	354
Wash	72	77	-	120	139	-	3	-	5
Oreg	70	57	-	86	82	-	-	-	-
Calif	2,909	2,612	1	2,124	2,028	-	77	-	341
Alaska	2	2	-	37	68	1	1	-	8
Hawaii	25	45	-	123	118	-	3	-	-
Guam	1	2	-	33	30	-	-	-	-
P R	544	491	-	181	222	-	4	-	30
V I	-	1	U	1	1	-	-	-	-
Pac Trust Terr	165	80	-	38	38	-	40	-	-
Amer Samoa	-	-	-	3	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending August 9, 1986 (32nd Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	578	399	121	38	12	8	33
Boston, Mass	140	87	37	13	1	2	13
Bridgeport, Conn	46	38	4	2	1	1	1
Cambridge, Mass	31	26	4	1	-	-	4
Fall River, Mass	25	21	3	-	1	-	-
Hartford, Conn	45	29	11	4	-	1	1
Lowell, Mass	23	12	9	2	-	-	2
Lynn, Mass	19	16	2	-	1	-	1
New Bedford, Mass	24	19	3	2	-	-	1
New Haven, Conn	30	20	4	3	3	-	2
Providence, R I	54	34	15	2	2	1	2
Somerville, Mass	9	6	3	-	-	-	2
Springfield, Mass	46	28	12	3	1	2	1
Waterbury, Conn	29	22	2	3	2	-	1
Worcester, Mass	57	41	12	3	-	1	2
MID ATLANTIC	2,665	1,679	562	243	85	96	105
Albany, N Y	54	32	13	4	2	3	-
Allentown, Pa	16	12	3	1	-	-	-
Buffalo, N Y	93	53	26	3	5	6	2
Camden, N J	35	23	9	2	-	1	-
Elizabeth, N J	18	12	3	2	1	-	2
Erie, Pa †	36	29	4	-	2	1	1
Jersey City, N J	57	41	8	-	1	7	3
N Y City, N Y	1,302	803	263	159	36	41	42
Newark, N J	98	45	22	18	8	5	3
Paterson, N J	35	24	6	3	1	1	-
Philadelphia, Pa	490	302	121	29	18	20	30
Pittsburgh, Pa †	48	36	6	2	1	3	1
Reading, Pa	36	23	11	1	1	-	6
Rochester, N Y	123	80	27	5	4	7	11
Schenectady, N Y	35	29	4	2	-	-	1
Scranton, Pa †	32	21	8	1	2	-	-
Syracuse, N Y	69	49	16	3	1	-	-
Trenton, N J	38	26	6	4	1	1	1
Utica, N Y	22	16	2	3	1	-	1
Yonkers, N Y	28	23	4	1	-	-	1
E N CENTRAL	2,276	1,416	540	169	57	94	77
Akron, Ohio	79	54	15	4	4	2	-
Canton, Ohio	38	27	9	2	-	-	1
Chicago, Ill §	564	362	125	45	10	22	16
Cincinnati, Ohio	130	82	25	11	5	7	9
Cleveland, Ohio	146	94	37	10	4	1	2
Columbus, Ohio	138	79	42	10	3	4	4
Dayton, Ohio	120	69	38	7	1	5	3
Detroit, Mich	288	146	77	33	16	16	10
Evansville, Ind	32	19	6	2	2	3	3
Fort Wayne, Ind	47	27	17	1	-	2	5
Gary, Ind	15	6	4	4	1	-	1
Grand Rapids, Mich	41	30	5	4	-	2	5
Indianapolis, Ind	192	114	46	16	4	12	4
Madison, Wis	42	27	6	3	2	4	2
Milwaukee, Wis	120	87	23	5	1	4	4
Peoria, Ill	41	24	8	3	1	5	2
Rockford, Ill	43	32	9	1	1	-	2
South Bend, Ind	52	37	13	2	-	-	2
Toledo, Ohio	97	69	20	5	2	1	2
Youngstown, Ohio	51	31	15	1	-	4	-
W N CENTRAL	713	498	145	28	21	21	37
Des Moines, Iowa	56	37	14	2	2	1	4
Duluth, Minn	35	25	5	3	1	1	-
Kansas City, Kans	37	22	11	2	1	1	1
Kansas City, Mo	125	83	29	6	5	2	5
Lincoln, Nebr	35	25	6	3	1	-	2
Minneapolis, Minn	55	41	9	2	1	2	4
Omaha, Nebr	89	66	17	3	1	2	7
St Louis, Mo	133	99	22	4	3	5	9
St Paul, Minn	73	50	17	1	3	2	1
Wichita, Kans	75	50	15	2	3	5	4

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S ATLANTIC	1,140	677	255	135	33	38	45
Atlanta, Ga	133	76	35	13	7	2	-
Baltimore, Md	183	111	50	11	4	7	5
Charlotte, N C	55	31	13	6	1	4	4
Jacksonville, Fla	105	73	20	9	1	2	5
Miami, Fla	109	52	30	22	3	2	4
Norfolk, Va	37	20	10	1	4	2	3
Richmond, Va	61	39	11	9	2	-	4
Savannah, Ga	48	25	13	5	3	2	2
St Petersburg, Fla	122	102	14	6	-	-	9
Tampa, Fla	57	35	11	5	3	2	3
Washington, D C	208	97	45	45	5	15	5
Wilmington, Del	22	16	3	3	-	-	1
E S CENTRAL	686	419	166	50	27	24	32
Birmingham, Ala	118	71	26	12	4	5	3
Chattanooga, Tenn	50	37	10	2	-	1	3
Knoxville, Tenn	56	38	12	4	1	1	5
Louisville, Ky	113	66	33	5	4	5	2
Memphis, Tenn	130	85	31	10	3	1	5
Mobile, Ala	36	25	10	-	1	-	2
Montgomery, Ala	54	27	14	3	4	6	4
Nashville, Tenn	129	70	30	14	10	5	8
W S CENTRAL	1,345	774	314	149	60	45	40
Austin, Tex	62	36	15	8	2	1	2
Baton Rouge, La	23	12	5	3	-	3	-
Corpus Christi, Tex	44	21	11	9	1	2	1
Dallas, Tex	182	97	55	13	10	7	4
El Paso, Tex	51	26	10	7	3	2	1
Fort Worth, Tex	87	51	18	10	2	6	1
Houston, Tex	384	204	95	49	23	13	5
Little Rock, Ark	39	21	12	3	2	1	4
New Orleans, La	120	76	27	10	4	3	1
San Antonio, Tex	156	96	32	18	6	4	4
Shreveport, La	73	48	12	8	3	2	6
Tulsa, Okla	124	86	22	11	4	1	11
MOUNTAIN	650	399	131	74	32	14	26
Albuquerque, N Mex	94	61	14	8	11	-	3
Colo Springs, Colo	33	21	6	4	2	-	3
Denver, Colo	97	54	21	16	3	3	1
Las Vegas, Nev	87	47	23	12	4	1	3
Ogden, Utah	21	15	4	2	-	-	4
Phoenix, Ariz	139	80	26	17	7	9	5
Pueblo, Colo	23	18	4	1	-	-	3
Salt Lake City, Utah	47	28	13	1	4	1	-
Tucson, Ariz	109	75	20	13	1	-	4
PACIFIC	1,888	1,203	375	180	56	71	102
Berkeley, Calif	24	18	5	1	-	-	3
Fresno, Calif	88	55	16	7	7	3	9
Glendale, Calif	31	25	4	2	-	-	1
Honolulu, Hawaii	74	51	14	4	2	3	7
Long Beach, Calif	77	51	14	5	2	5	5
Los Angeles, Calif	507	313	99	64	17	13	9
Oakland, Calif	81	52	12	9	4	4	3
Pasadena, Calif	35	25	4	1	-	5	2
Portland, Oreg	131	90	21	8	4	8	5
Sacramento, Calif	131	83	30	8	3	7	12
San Diego, Calif	135	78	31	14	6	5	15
San Francisco, Calif	149	84	35	23	2	4	6
San Jose, Calif	173	109	37	17	3	7	13
Seattle, Wash	156	99	32	15	4	6	8
Spokane, Wash	52	38	10	1	2	1	3
Tacoma, Wash	44	32	11	1	-	-	1
TOTAL	11,941††	7,464	2,609	1,066	383	411	497

* 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.

†† Total includes unknown ages.

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

Table V. Estimated years of potential life lost before age 65 and cause-specific mortality, by cause of death — United States, 1984

Cause of mortality (Ninth Revision ICD)	Years of potential life lost by persons dying in 1984*	Cause-specific mortality† (rate/100,000)
ALL CAUSES (Total)	11,761,000	866.7
Unintentional injuries§ (E800-E949)	2,308,000	40.1
Malignant neoplasms (140-208)	1,803,000	191.6
Diseases of the heart (390-398, 402, 404-429)	1,563,000	324.4
Suicide, homicide (E950-E978)	1,247,000	20.6
Congenital anomalies (740-759)	684,000	5.6
Prematurity¶ (765, 769)	470,000	3.5
Sudden infant death syndrome (798)	314,000	2.4
Cerebrovascular diseases (430-438)	266,000	65.6
Chronic liver diseases and cirrhosis (571)	233,000	11.3
Pneumonia and influenza (480-487)	163,000	25.0
Chronic obstructive pulmonary diseases (490-496)	123,000	29.8
Diabetes mellitus (250)	119,000	15.6

*For details of calculation, see footnotes for Table V, *MMWR* 1986;35:27.

†Cause-specific mortality rates as reported in the MVSR are compiled from a 10% sample of all deaths.

§Equivalent to accidents and adverse effects.

¶Category derived from disorders relating to short gestation and respiratory distress syndrome.

Recommendation of the Immunization Practices Advisory Committee (ACIP)

Monovalent Influenza A(H1N1) Vaccine, 1986-1987

These supplemental recommendations provide guidelines for a monovalent influenza A(H1N1) vaccine for protection against a newly emerged variant of influenza that has recently caused outbreaks among children and young adults in Asia. Guidance is provided for the use of this monovalent vaccine, which contains 15 μg of A/Taiwan/1/86(H1N1) antigen, as a supplement to the standard trivalent influenza vaccine. Recommendations for the use of the

Influenza Viruses — Continued

*standard trivalent influenza vaccine for the 1986-1987 season and the use of antivirals for the prevention and treatment of influenza (*MMWR *1986;35:317-26, 331) remain in effect and should be referred to in conjunction with this supplemental recommendation. The trivalent vaccine is intended to protect against currently circulating strains of influenza A(H3N2) and influenza B viruses and may provide partial protection against the new influenza A(H1N1) variant.**

INTRODUCTION

Influenza A(H1N1) viruses circulated throughout the world from at least the mid-1930s until 1957, and many epidemics during this period were associated with severe illness and excess mortality (*1*). Influenza A(H1N1) viruses similar to a strain seen in 1950 reappeared in epidemic form in 1977, but outbreaks were detected only among children and young adults. In 1978-1979, when a U.S. epidemic was caused exclusively by type A(H1N1) virus, widespread outbreaks occurred among children and young adults, but no excess mortality was observed at the national level (*1*).

Influenza A(H1N1) viruses, like other human influenza viruses, have continued to undergo antigenic variation and have caused outbreaks in the United States during several winters, most recently that of 1983-1984. Since 1977, the incidence of illness associated with influenza A(H1N1) infection has been very low among older adults; such illnesses have generally been mild (*2*); and virtually no outbreaks have been detected among older age groups, even though the post-1977 antigenic variants have differed from those that circulated before 1957 (*3*). A temporal relationship between the occurrence of influenza A(H1N1) infections in the community and increased hospitalizations of older persons for acute respiratory disease (ARD) has been reported in one investigation (*4*); however, the severity of ARD (e.g., incidence of pneumonia) and the excess number of hospitalizations for ARD associated with influenza are not known. Furthermore, from 1982 to 1986, the laboratories collaborating in CDC's influenza virus surveillance program reported 1,049 influenza type A(H1N1) virus isolates, of which only six (0.6%) were obtained from persons aged 65 years or older. During the same period, 566 (22%) of 2,635 type A(H3N2) and 169 (9%) of 1,905 type B viruses were isolated from persons in this age group. This indicates that, although older Americans have had repeated exposure to all three currently circulating influenza strains, they do not have the same level of natural protection against illness caused by new variants of type A(H3N2) or type B viruses as they do against new variants of type A(H1N1) virus. Thus, it appears that, in influenza A(H1N1) epidemics since 1977, children and young adults have been particularly at risk of infection and illness and that the frequency of illness has decreased markedly among persons born before the mid-1950s. Nevertheless, some persons born before this time remain susceptible to infection and may have respiratory illnesses requiring medical attention.

Following the 1983-1984 influenza season, A(H1N1) strains were isolated infrequently in most parts of the world. The majority of A(H1N1) isolates in 1984 and 1985 continued to resemble the A/Chile/1/83 strain (which was first included in the trivalent influenza vaccine for 1984-1985), and A/Chile/1/83 was, therefore, chosen to remain the A(H1N1) component for the trivalent vaccine previously recommended for 1986-1987 (*5*). However, A(H1N1) viruses from influenza outbreaks in several Asian countries during March-May 1986 have recently been found to be poorly inhibited by antibody induced by the A/Chile/1/83 strain. In

*Product information about influenza vaccines can be obtained from the following manufacturers: Connaught (vaccine distributed by Squibb)—(609) 921-4000; Parke-Davis—(800) 223-0432; Wyeth—(800) 321-2304.

Influenza Vaccine — Continued

contrast, these viruses were all well inhibited by antisera to representatives of the new isolates. In addition, tests of antibody response induced by A/Chile/1/83 vaccine among children or adults showed four- to sixfold lower postvaccination geometric mean titers against representatives of the new variants than against A/Chile/1/83 (*6, 7*).

It is not possible to predict how widely these new A(H1N1) variants will circulate in the United States during 1986-1987, nor the actual level of protection that A/Chile/1/83 vaccine will induce against them. However, it seems prudent to maximize protection of individuals at high risk of serious complications following influenza A(H1N1) infection in the event that these newer A(H1N1) viruses do cause major outbreaks in the United States. Vaccine manufacturers have, therefore, been requested to initiate production of a supplemental monovalent A(H1N1) influenza vaccine for use before the 1986-1987 season.

Influenza A(H3N2) and type B viruses closely related to the strains in the 1986-1987 vaccine have continued to circulate throughout the world and may also appear in the United States during the 1986-1987 influenza season. The supplemental influenza A(H1N1) vaccine, unlike the 1986-1987 trivalent vaccine, will not contain representative antigens for virus types A(H3N2) and B. It is, therefore, imperative that the trivalent vaccine continue to be used as previously recommended (5). Programs for administration of the 1986-1987 trivalent vaccine to high-priority target groups should not be delayed, regardless of the time of availability of the supplemental A(H1N1) vaccine.

RECOMMENDATION

Individuals under 35 years of age for whom influenza vaccination has been specifically recommended (*5*) should receive both the standard trivalent vaccine and the monovalent A/Taiwan/1/86(H1N1) vaccine.

Any high-risk person aged 35 years and older, or any other person who wishes to be immunized, may also receive the supplemental vaccine.

PERSONS WHO SHOULD NOT BE VACCINATED

Inactivated influenza vaccine of any kind should not be given to persons who have an anaphylactic sensitivity to eggs. Persons with acute febrile illnesses should not be vaccinated until their temporary symptoms have abated. For recommendations regarding the use of influenza vaccine during pregnancy, refer to the previously published recommendations for the control of influenza (*5*).

TIMING OF INFLUENZA VACCINATION ACTIVITIES

Recommendations for the timing of influenza vaccination activities with the trivalent vaccine for use in 1986-1987 have been published (*5*). ***Those recommendations remain in effect. Additional recommendations below (Table 5) apply to persons receiving the supplemental A(H1N1) vaccine in conjunction with the 1986-1987 trivalent vaccine.***

Children aged 12 years or younger who have never received any influenza vaccine containing type A(H1N1) antigen (i.e., any influenza vaccine since 1978-1979) are considered unprimed and require two doses of the standard trivalent vaccine with an interval of at least 4 weeks between doses. The timing and number of monovalent A(H1N1) vaccine doses required will vary depending on whether the recipient has been primed by prior vaccination or infection and on the timing of doses administered for the current season (Table 5).

If the supplemental monovalent vaccine is not available at the time vaccination programs would normally be undertaken, vaccination with the standard trivalent vaccine should not be delayed.

Influenza Vaccine – Continued

TABLE 5. Timing and dosage schedules for use of the supplemental 1986-1987 monovalent A(H1N1) influenza vaccine in conjunction with the 1986-1987 trivalent vaccine

AGE	INFLUENZA VACCINATION STATUS		ADDITIONAL VACCINATIONS
	Any Influenza Vaccine 1978/1979-1985/1986	Doses of 1986/1987 Trivalent Vaccine Received	Vaccination Schedule* for Future 1986/1987 Vaccination
6 mos.–12 yrs.	NO (unprimed)	NONE	Trivalent + monovalent simultaneously in 2 sites on each of 2 visits ≥ 4 wks. apart
		1	Trivalent + monovalent simultaneously in 2 sites ≥ 4 wks. after 1st trivalent
		2	Monovalent ≥ 4 wks. after trivalent
	YES (primed)	NONE	Trivalent + monovalent simultaneously in 2 sites
		1	Monovalent ≥ 4 wks. after trivalent
≥ 13 yrs.	DOESN'T MATTER	NONE	Trivalent + monovalent simultaneously in 2 sites
		1	Monovalent ≥ 4 wks. after trivalent

*If monovalent vaccine is not available when trivalent vaccine is scheduled, do not delay administration of trivalent vaccine. After at least one dose of the trivalent vaccine has been administered, only one dose of the monovalent vaccine will be needed. This may be given either simultaneously with the scheduled second dose of trivalent vaccine for a child receiving two doses of trivalent vaccine or 4 weeks or more after the last dose of trivalent vaccine administered.

Influenza Vaccine — Continued

It is anticipated that the supplemental monovalent vaccine will not be available until November-December 1986. If influenza A outbreaks begin to occur before vaccination, temporary chemoprophylaxis with the antiviral agent, amantadine, may be indicated. Recommendations for amantadine use for prophylaxis and treatment of influenza A infections have been published (*5*).

Information about the availability of the supplemental vaccine and the occurrence of influenza will be made available to state health officials by electronic communication and will be published in the *MMWR*.

RECOMMENDED DOSAGE OF SUPPLEMENTAL MONOVALENT INFLUENZA VACCINE

The 1986-1987 supplemental monovalent vaccine contains 15 μg of A/Taiwan/1/86 antigen in each 0.5-ml dose. As with the standard trivalent vaccine, the recommended dosage of the monovalent vaccine should be reduced to 0.25 ml for children 6-35 months of age. Only split-virus vaccine, suitable for use in children or adults, will be manufactured. When administered simultaneously with the 1986-1987 trivalent vaccine, the vaccines should be given in separate sites (e.g., right and left deltoid or thigh). For more specific information, see the recommendations for 1986-1987 (*5*).

SIDE EFFECTS AND ADVERSE REACTIONS

Children aged 6-35 months will receive a total of 30.0 μg of antigen when given both vaccines simultaneously, compared with 22.5 μg when given trivalent influenza vaccine alone; children 3 years of age or older and adults will receive a total of 60.0 μg of antigen when given both vaccines simultaneously, 45.0 μg when given only the trivalent vaccine. Studies of the effect of different doses of influenza vaccine antigen administered to children and adults suggest that the amounts of antigen delivered by simultaneous administration of the trivalent and monovalent vaccines will result in no significant differences in the occurrence or severity of systemic adverse reactions compared with administration of trivalent vaccine alone (*8-10*).

More information on side effects and adverse reactions associated with inactivated influenza vaccine has been published (*5*).

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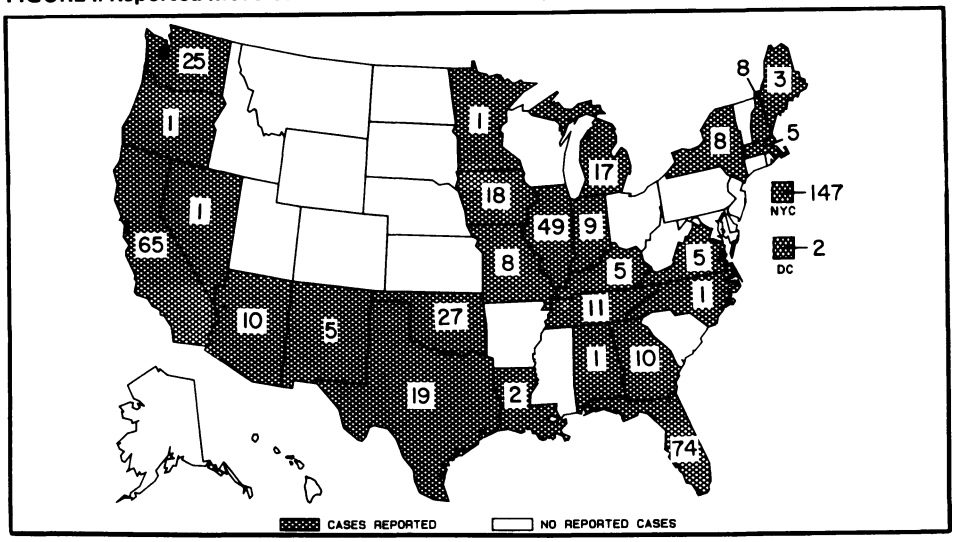
Erratum : Vol. 35, No. 30

p. 490 In the article "Release of Botulism Antitoxin," several incorrect telephone numbers were published in Table 2 on page 491. Corrections are indicated below in bold type.

State	Daytime no.	24-hour or night no.
Arkansas	(501) 661-2597	**(501) 982-5697**
Delaware	**(302) 736-5617**	**(302) 734-5462**
Florida	**(904) 488-2905**	
Hawaii	**(808) 548-5986**	(808) 247-2191
Maine	(207) 289-3591	(800) 821-5821 **(in state)**
Virginia	**(804) 936-6261**	**(804) 786-0000**
Washington	(206) 361-2914	**(206) 361-2914**

FIGURE I. Reported measles cases — United States, weeks 28-31, 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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