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Perspectives in Disease Prevention and Health Promotion

Homicide Among Young Black Males — United States, 1970-1982

The U.S. Department of Health and Human Services has established an objective for the nation calling for a substantial reduction in the homicide victimization rate for young black males: by 1990, the death rate from homicide among black males 15-24 years of age should be reduced to below 60/100,000 (compared with 72.5/100,000 in 1978) (*1*). To monitor and promote progress toward this objective, CDC and the National Institute of Mental Health are investigating trends and characteristics of homicide within this high-risk group (*2*).*

Homicide is currently the leading cause of death for young black males (15-24 years old) in the United States. In 1982, the homicide rate for this group was 72.0/100,000 population, almost six times that for white males in the same age group (13.1/100,000). Although the rate for young black males has fluctuated from 1970 through 1982, there has been an overall decrease of 33.5% (Figure 1). During the same 13-year period, homicide rates for young white males increased from 9.9/100,000 in 1970 to 13.1/100,000 in 1982.

The decline in the homicide rate has been more pronounced for young adult black males (20-24 years old) than for adolescent black males (15-19 years old). However, young adult black males maintained a number and rate of homicide over twice that of adolescent black males.

Homicide rates for young black males were consistently highest in the north-central states and lowest in the western states (Figure 2). The 13-year national decline in rates for young black males was not equally evident among geographic regions: rates declined more steeply in the south and northeast, with little decline in the west. Therefore, differences between these regions were smaller in 1980 than in 1970.

In 1980, the homicide rate for young black males living within Standard Metropolitan Statistical Areas (SMSAs) was over twice that for young black males residing outside SMSAs (95.8/100,000, compared with 40.8/100,000). The rate for young white males within SMSAs was slightly less than twice that for young white males residing outside SMSAs (18.3/100,000, compared with 10.1/100,000).

Most homicides among young black males were committed with guns (71.1% of all weapons for 1976-1982); of those homicides committed with guns, 76.2% involved handguns.

*Homicide statistics related to the demographic and residential characteristics of victims were extracted from national mortality data files compiled by the National Center for Health Statistics for 1970-1982. Homicide statistics on weapon use, crime circumstance, and victim-offender relationship were extracted from the Supplementary Homicide Report files compiled by the Federal Bureau of Investigation for 1976-1982. In this report, homicide is defined as death due to injuries inflicted by another person with intent to injure or kill, by any means; this report includes both criminal homicides and justifiable homicides perpetrated by law enforcement officers in the line of duty or citizens in self-defense.

Homicide – Continued

FIGURE 1. Homicide rates, black males 15-24 years of age, by age group and year — United States, 1970-1982

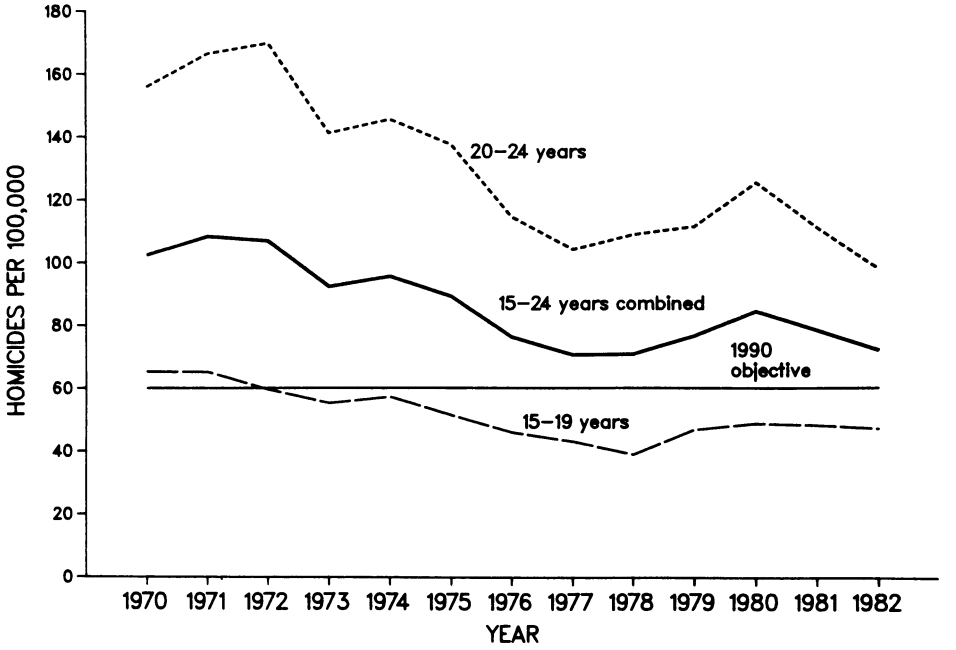
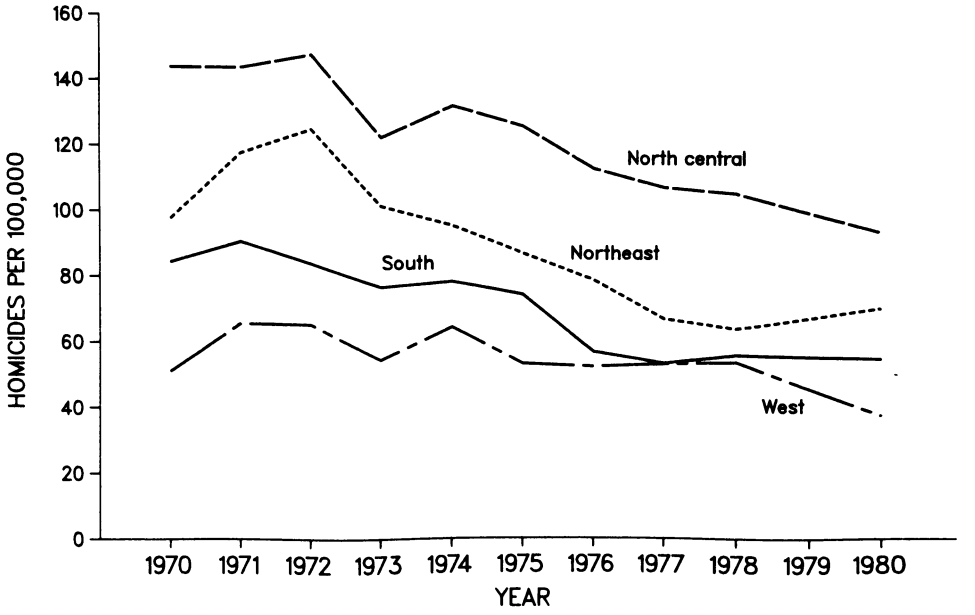


FIGURE 2. Homicide rates, black males 15-24 years of age, by geographic region — United States, 1970-1978, and 1980*



*Regional population estimates were not available for 1979 by race and age.

Homicide — Continued

Cutting or piercing instruments were the second most frequently used weapon (20.2%) (Figure 3). Among young white males, 67.0% of homicides were committed using guns, and 23.4%, using cutting or piercing instruments.

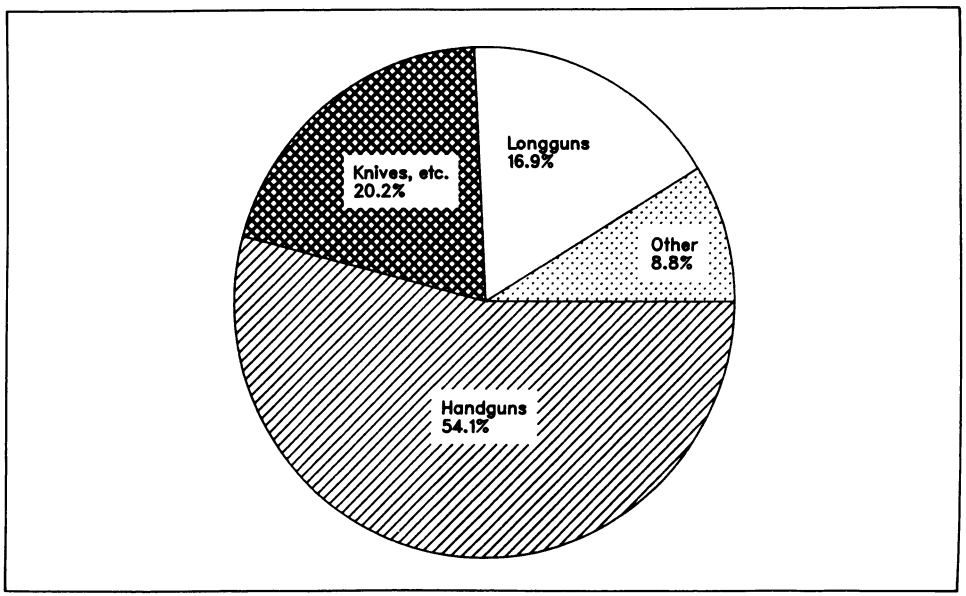
In 1982, most young black male homicide victims were killed during or after arguments or other nonfelony circumstances (65.4%). A small proportion of homicides occurred in connection with documented criminal events, such as robberies or drug trafficking (11.2%). Homicide patterns were similar for white males: 62.9% were associated with arguments or other nonfelony circumstances, and 15.7%, with documented criminal events.

Most young black male homicide victims were killed by persons known to them, usually acquaintances but not family members (Figure 4). From 1976 to 1982, 46.2% were killed by acquaintances; 19.9%, by strangers; and 7.7%, by family members. Victim-offender relationship was unknown for 26.1% of young black male homicide victims. During that period, the percentage of homicides committed by an acquaintance of the victim declined. However, the number of homicides in which the victim-offender relationship was unknown increased. Among young white males, a smaller proportion of victims were killed by acquaintances (38.6%), and a slightly larger proportion, by strangers (23.8%).

Reported by Center for Studies of Anti-Social and Violent Behavior, National Institute of Mental Health; Violence Epidemiology Br, Center for Health Promotion and Education, CDC.

Editorial Note: The 1990 national health objective calling for a reduction in homicide rates focuses on one group at high risk for homicide victimization: young black males aged 15-24 years. Homicide rates for other age and sex categories within the black population, as well as for other minority groups, are also unacceptably high. For example, in 1980, homicide was the leading cause of death not only for black males aged 15-24 years, but also for black males aged 25-34. In 1980, homicide rates in every age category were higher for black males than for any other race/sex group. Black females aged 20-39 years died from homicide at rates exceeding those for white males and white females in the same age categories. In 1980, homicide was the fifth leading cause of death for blacks in the United States and the

FIGURE 3. Percentage of homicides, black males 15-24 years of age, by weapon — United States, 1976-1982



Homicide — Continued

second leading cause of years of potential life lost (YPLL) for blacks under age 65 years. Evidence from special studies indicates that Hispanic males also have very high homicide rates, which exceed 30.0/100,000 and which fall between those for black males and white, non-Hispanic males (*3-4*).

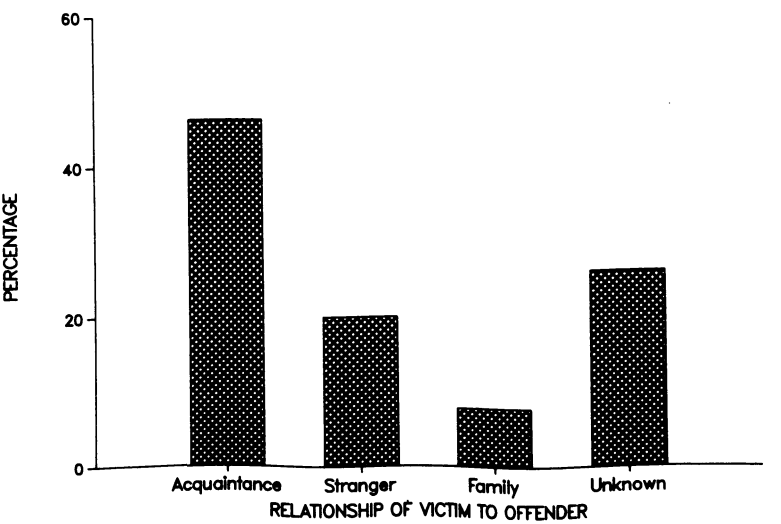
The toll in black lives and YPLL that homicide takes represents only a small portion of the health burden of assaultive behavior. Injuries and emotional trauma associated with nonfatal assaults are also widespread. Based on information from the National Crime Survey, the Bureau of Justice Statistics reported that approximately one of every 25 U.S. blacks over 12 years old had been victimized by violent crime in 1982 (*5*). This proportion has remained fairly constant since 1978 but is probably underestimated, because not all victimizations are revealed to interviewers.

Although blacks continue to have higher homicide rates than whites, racial differences disappear or become much smaller when blacks are compared with whites of similar socioeconomic status (SES) (*6-8*). In addition, descriptive studies of homicide have consistently found that the majority of homicides are concentrated in urban areas characterized by low SES, high population density, and poor housing (*9-10*). The specific mechanisms through which low SES status affects violent behavior are still not well understood.

The decreasing rate of homicide among young black males since 1972 contrasts with increasing rates of homicide among black males during the early 1960s through the early 1970s. At present, the causes for these temporal patterns are not known.

At this stage in the public health effort to understand and prevent homicide, it is essential to establish a foundation for prevention. Research and prevention should focus on high-risk groups and, more specifically, on the weapons, relationships, and circumstances associated with homicide in these groups. The public should be made aware of the consequences and risks of violence, the steps which can be taken to reduce risk, and the resources available for dealing with problems associated with violence. Mechanisms should be developed for coordinating the efforts of law enforcement, health, and social service agencies at the national, state, and local levels to develop strategies to prevent homicide. Data-collection systems to monitor incidents involving interpersonal violence should be developed and evaluated. These data are needed to establish, as accurately as possible, the extent and nature of interpersonal

FIGURE 4. Percentage of homicides, by victim-offender relationship, black males 15-24 years of age — United States, 1976-1982



Homicide – Continued

violence so that researchers and policy-makers can: (1) assess the impact of the problem; (2) determine the quantity and type of resources needed to respond to the problem; and (3) track the effectiveness of existing as well as new prevention and intervention strategies.

The Violence Epidemiology Branch of the Center for Health Promotion and Education, CDC, is working to encourage and facilitate greater involvement of public health, social service, and educational agencies in efforts to reduce the morbidity and mortality of interpersonal violence in all high-risk groups.

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Epidemiologic Notes and Reports

Prevention and Control of Influenza

Influenza viruses have continually demonstrated the ability to cause major epidemics of respiratory disease and frequently infect individuals who, because of their advanced ages and/or chronic underlying health conditions, are poorly able to cope with the disease. Excess deaths attributable to pneumonia and influenza are often documented during epidemics, and over 80% of these deaths occur among persons 65 years of age or older. Although annual influenza vaccination has long been considered the single most important measure in the prevention or attenuation of influenza virus infections, immunization surveys have repeatedly demonstrated that only about 20% of persons at high risk for influenza-related complications are vaccinated in any given year (*1*). In view of this observation, the Immunization Practices Advisory Committee (ACIP) recently reclassified the broadly defined high-risk group on the basis of priority, so that special efforts can be directed at providing influenza vaccine to persons who would derive the greatest benefit (*2*). These groups, in order of priority, are:

1. Adults and children with chronic disorders of the cardiovascular or pulmonary systems that are severe enough to have required regular medical follow-ups or hospitalization during the preceding year; and residents of nursing homes and other chronic-care facilities.

Influenza — Continued

2. Physicians, nurses, and other personnel who have extensive contact with high-risk patients.
3. Otherwise healthy individuals over 65 years of age; and adults and children with chronic metabolic diseases (including diabetes mellitus), renal dysfunction, anemia, immunosuppression, or asthma severe enough to require regular medical follow-up or hospitalization during the preceding year.

Since there is considerable overlap in the target groups for influenza and pneumococcal vaccination, physicians should consider giving both vaccines simultaneously at separate anatomical sites. However, in contrast to influenza vaccine, which should be administered annually, pneumococcal vaccine should be given only once (*3*). Providing detailed immunization records to each patient would help ensure that additional doses of pneumococcal vaccine are not given.

The ACIP also encourages physicians to administer vaccine to any persons in their practices who wish to reduce their chances of acquiring influenza infection and has also recommended amantadine hydrochloride prophylaxis and therapy when appropriate circumstances arise. Details concerning these and other aspects of influenza control have been published elsewhere (*2*).

(Continued on page 639)

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

Disease	41st Week Ending			Cumulative, 41st Week Ending		
	Oct. 12, 1985	Oct. 13, 1984	Median 1980-1984	Oct. 12, 1985	Oct. 13, 1984	Median 1980-1984
Acquired Immunodeficiency Syndrome (AIDS)	278	70	N	6,301	3,216	N
Aseptic meningitis	389	270	308	7,499	6,216	7,114
Encephalitis: Primary (arthropod-borne & unspec.)	44	45	57	919	883	1,200
Post-infectious	2	3	1	104	100	76
Gonorrhea: Civilian	13,098	16,083	20,020	658,846	655,226	757,270
Military	90	295	457	14,060	16,877	21,185
Hepatitis: Type A	302	435	457	17,291	16,519	17,869
Type B	363	522	398	20,167	20,154	16,897
Non A, Non B	46	72	N	3,192	2,945	N
Unspecified	93	134	171	4,474	3,935	6,844
Legionellosis	12	9	N	495	520	N
Leprosy	2	5	2	285	184	184
Malaria	14	13	13	802	754	862
Measles: Total*	3	23	23	2,499	2,372	2,372
Indigenous	3	21	N	2,067	2,093	N
Imported	-	2	N	432	279	N
Meningococcal infections: Total	30	24	47	1,874	2,166	2,182
Civilian	30	24	47	1,871	2,162	2,167
Military	-	-	-	3	4	14
Mumps	39	39	44	2,359	2,365	3,495
Pertussis	59	34	41	2,258	1,917	1,356
Rubella (German measles)	2	5	6	561	628	1,831
Syphilis (Primary & Secondary): Civilian	278	417	537	19,897	21,918	24,150
Military	-	4	9	118	245	309
Toxic Shock syndrome	3	6	N	280	387	N
Tuberculosis	255	402	486	16,537	16,713	19,953
Tularemia	5	6	6	135	255	221
Typhoid fever	10	13	17	291	274	351
Typhus fever, tick-borne (RMSF)	12	20	16	612	758	1,041
Rabies, animal	57	115	113	4,180	4,298	5,075

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1985		Cum 1985
Anthrax	-	Leptospirosis	29
Botulism: Foodborne	40	Plague	11
Infant	46	Poliomyelitis: Total	5
Other	1	Paralytic (Mass. 1)	5
Brucellosis	110	Psittacosis	85
Cholera	3	Rabies, human	-
Congenital rubella syndrome	-	Tetanus (Upst. N.Y. 1, Ill. 1)	53
Congenital syphilis, ages < 1 year	111	Trichinosis	51
Diphtheria	1	Typhus fever, flea-borne (endemic, murine)	20

*There were no cases of internationally imported measles reported for this week.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending October 12, 1985 and October 13, 1984 (41st Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1985	1985	Cum. 1985	Cum. 1985	Cum. 1985	Cum. 1984	1985	1985	1985	1985	1985	Cum. 1985
UNITED STATES	6,301	389	919	104	658,846	655,226	302	363	46	93	12	285
NEW ENGLAND	208	21	22	-	18,044	17,952	7	30	1	12	-	6
Maine	10	1	-	-	906	775	-	1	-	-	-	-
N.H.	-	2	5	-	450	557	1	-	-	-	-	-
Vt.	1	-	-	-	263	296	2	2	-	1	-	-
Mass.	128	7	15	-	7,339	7,556	3	20	1	11	-	6
R.I.	10	8	-	-	1,447	1,259	1	2	-	-	-	-
Conn.	59	3	2	-	7,639	7,509	-	5	-	-	-	-
MID ATLANTIC	2,523	100	119	11	100,552	87,958	56	62	6	6	-	33
Upstate N.Y.	278	72	39	4	13,888	13,748	32	35	5	3	-	1
N.Y. City	1,726	3	13	-	49,236	34,953	2	1	-	-	-	28
N.J.	375	12	25	-	15,439	15,312	9	7	-	2	-	-
Pa.	144	13	42	7	21,989	23,945	13	19	1	1	-	4
E.N. CENTRAL	262	92	254	20	92,977	92,467	30	50	6	1	7	21
Ohio	44	54	117	4	24,315	23,767	19	29	2	1	4	3
Ind.	22	9	57	2	10,043	10,153	1	3	-	-	-	-
Ill.	132	-	14	8	22,827	21,256	1	1	-	-	1	16
Mich.	46	29	47	-	26,669	27,013	9	17	4	-	2	2
Wis.	18	-	19	6	9,123	10,278	-	-	-	-	-	-
W.N. CENTRAL	83	24	68	3	32,533	32,276	11	15	-	2	3	2
Minn.	27	7	32	1	4,790	4,871	-	-	-	-	-	1
Iowa	10	3	25	-	3,503	3,485	4	2	-	-	2	-
Mo.	35	13	-	-	15,907	15,601	5	11	-	2	1	1
N. Dak.	-	-	-	1	223	304	-	-	-	-	-	-
S. Dak.	1	-	-	-	630	757	2	1	-	-	-	-
Nebr.	2	1	5	-	2,690	2,303	-	-	-	-	-	-
Kans.	8	-	6	1	4,790	4,955	-	1	-	-	-	-
S. ATLANTIC	971	97	104	41	146,544	166,536	49	109	16	13	1	7
Del.	10	2	5	-	3,465	3,082	3	1	1	-	-	-
Md.	116	11	22	1	23,339	19,507	1	12	3	-	-	1
D.C.	141	-	-	-	12,331	11,831	-	-	-	-	-	-
Va.	82	30	23	6	15,336	15,809	1	5	2	2	-	-
W. Va.	5	3	24	-	2,118	2,098	-	2	-	-	-	-
N.C.	46	6	25	1	28,333	26,957	5	11	3	2	-	2
S.C.	24	4	5	-	17,434	17,074	1	16	-	-	1	-
Ga.	139	17	-	-	-	30,613	8	24	1	-	-	1
Fla.	408	24	-	33	44,188	39,565	30	38	6	9	-	3
E.S. CENTRAL	53	17	30	4	59,589	58,035	5	16	1	4	-	-
Ky.	14	1	12	-	6,818	7,034	3	1	-	3	-	-
Tenn.	15	1	6	-	22,643	24,030	-	7	1	1	-	-
Ala.	21	14	10	4	18,036	18,079	1	4	-	-	-	-
Miss.	3	1	2	-	12,092	8,892	1	4	-	-	-	-
W.S. CENTRAL	464	24	113	2	86,850	89,167	72	45	8	42	1	18
Ark.	6	-	3	1	8,547	8,269	1	3	1	-	-	1
La.	72	1	4	-	17,079	19,822	2	1	2	1	-	1
Okla.	15	5	23	1	9,795	9,806	10	3	2	1	1	-
Tex.	371	18	83	-	51,429	51,270	59	38	3	40	-	16
MOUNTAIN	104	4	38	6	21,602	21,468	36	18	2	10	-	7
Mont.	-	-	-	-	600	868	-	-	-	-	-	-
Idaho	-	-	-	-	745	1,015	-	2	-	-	-	-
Wyo.	-	-	1	-	513	605	2	3	-	-	-	-
Colo.	45	U	6	2	6,059	6,175	U	U	U	U	U	2
N. Mex.	12	-	3	-	2,467	2,562	-	-	-	-	-	-
Ariz.	26	3	15	-	6,594	5,807	22	11	1	6	-	1
Utah	13	1	10	4	1,012	1,025	6	-	1	1	-	3
Nev.	8	-	3	-	3,612	3,411	6	2	-	3	-	1
PACIFIC	1,633	10	171	17	100,155	89,367	36	18	6	3	-	191
Wash.	80	5	13	-	7,724	6,694	2	8	5	2	-	34
Oreg.	27	-	1	-	5,118	5,205	33	8	1	1	-	3
Calif.	1,505	U	134	17	83,542	73,765	U	U	U	U	U	135
Alaska	3	1	23	-	2,376	2,195	-	-	-	-	-	-
Hawaii	18	4	-	-	1,395	1,508	1	2	-	-	-	19
Guam	1	U	-	-	119	195	U	U	U	U	U	3
P.R.	68	3	5	2	2,542	2,706	1	7	-	-	-	2
V.I.	2	U	-	-	348	428	U	U	U	U	U	-
Pac. Trust Terr.	-	U	-	-	146	-	U	U	U	U	U	20

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending October 12, 1985 and October 13, 1984 (41st Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum. 1985	1985	Cum. 1985	1985	Cum. 1985	Cum. 1984	Cum. 1985	1985	Cum. 1985	1985	Cum. 1985	Cum. 1984	1985	Cum. 1985	Cum. 1984
UNITED STATES	802	3	2,067	-	432	2,372	1,874	39	2,359	59	2,258	1,917	2	561	628
NEW ENGLAND	46	-	38	-	88	105	86	1	55	3	147	54	-	12	18
Maine	4	-	-	-	1	-	3	-	6	-	13	2	-	-	1
N.H.	4	-	-	-	-	36	14	1	10	-	66	8	-	2	1
Vt.	1	-	-	-	-	7	10	-	2	-	3	23	-	-	-
Mass.	22	-	34	-	84	48	14	-	16	2	43	14	-	6	16
R.I.	5	-	-	-	-	-	14	-	14	1	15	3	-	-	-
Conn.	10	-	4	-	3	14	31	-	7	-	7	4	-	4	-
MID ATLANTIC	134	-	172	-	38	153	335	15	269	13	153	154	2	220	216
Upstate N.Y.	45	-	71	-	13	36	129	10	144	6	73	89	-	17	99
N.Y. City	51	-	58	-	12	105	60	-	32	2	21	7	2	180	99
N.J.	14	-	17	-	10	7	50	-	34	-	7	11	-	9	17
Pa.	24	-	26	-	3	5	96	5	59	5	52	47	-	14	1
E.N. CENTRAL	50	-	435	-	90	695	325	11	861	8	484	463	-	29	85
Ohio	8	-	-	-	54	9	106	3	255	5	86	69	-	-	2
Ind.	4	-	55	-	2	3	43	-	37	-	135	229	-	1	5
Ill.	17	-	286	-	10	179	71	2	188	-	31	26	-	12	50
Mich.	15	-	37	-	23	464	77	6	299	2	43	28	-	15	20
Wis.	6	-	57	-	1	40	28	-	82	1	189	111	-	1	8
W.N. CENTRAL	27	-	1	-	10	47	93	-	71	5	180	114	-	19	37
Minn.	11	-	-	-	6	38	24	-	1	3	81	14	-	2	4
Iowa	2	-	-	-	-	-	8	-	13	-	28	10	-	1	1
Mo.	5	-	-	-	2	4	36	-	12	-	27	18	-	7	-
N. Dak.	2	-	-	-	2	-	4	-	3	-	9	-	-	2	3
S. Dak.	1	-	-	-	-	-	3	-	-	1	3	9	-	-	-
Nebr.	1	-	-	-	-	-	7	-	2	1	8	11	-	-	-
Kans.	5	-	1	-	-	5	11	-	40	-	24	52	-	7	29
S. ATLANTIC	92	2	272	-	30	54	371	4	220	7	330	193	-	55	23
Del.	-	-	-	-	-	-	10	-	1	-	1	2	-	1	-
Md.	22	2	98	-	9	22	52	-	28	-	131	60	-	6	1
D.C.	5	-	9	-	1	8	6	-	-	-	1	-	-	-	-
Va.	19	-	21	-	7	5	46	-	42	-	17	19	-	2	-
W. Va.	2	-	31	-	2	-	8	2	61	-	4	11	-	9	-
N.C.	8	-	9	-	-	-	51	-	13	1	25	32	-	1	-
S.C.	-	-	-	-	3	1	34	-	9	-	2	2	-	3	-
Ga.	7	-	8	-	-	1	61	-	28	3	89	14	-	4	2
Fla.	29	-	96	-	8	17	103	2	38	3	60	53	-	29	20
E.S. CENTRAL	10	-	-	-	7	6	85	-	28	1	49	14	-	3	12
Ky.	3	-	-	-	5	1	9	-	8	-	8	2	-	3	6
Tenn.	-	-	-	-	1	2	33	-	16	-	19	7	-	-	-
Ala.	6	-	-	-	-	3	25	-	1	1	18	1	-	-	3
Miss.	1	-	-	-	1	-	18	-	3	-	4	4	-	-	3
W.S. CENTRAL	77	-	416	-	15	555	155	7	254	14	342	287	-	34	54
Ark.	3	-	-	-	-	8	15	-	6	-	14	18	-	1	3
La.	1	-	42	-	-	8	23	-	2	-	12	8	-	-	-
Okla.	4	-	-	-	1	8	29	N	N	2	136	237	-	1	-
Tex.	69	-	374	-	14	531	88	7	246	12	180	24	-	32	51
MOUNTAIN	43	1	497	-	51	145	81	1	219	6	177	110	-	5	21
Mont.	-	-	122	-	17	-	5	-	11	-	9	19	-	-	-
Idaho	2	-	126	-	18	23	2	-	9	2	7	7	-	1	1
Wyo.	1	1	5	-	-	-	6	-	2	-	-	6	-	-	2
Colo.	13	U	6	U	7	6	22	U	19	U	66	38	U	-	2
N. Mex.	14	-	1	-	5	88	10	N	N	-	12	8	-	2	1
Ariz.	8	-	237	-	4	1	21	1	109	4	38	23	-	1	4
Utah	2	-	-	-	-	27	9	-	6	-	45	7	-	-	7
Nev.	3	-	-	-	-	-	6	-	63	-	-	2	-	1	4
PACIFIC	323	-	236	-	103	612	343	-	382	2	396	528	-	184	162
Wash.	23	-	31	-	39	140	60	-	33	2	69	301	-	14	1
Oreg.	12	-	4	-	1	-	32	N	N	-	40	25	-	1	2
Calif.	269	U	183	U	58	309	238	U	322	U	241	127	U	126	154
Alaska	2	-	-	-	-	-	9	-	9	-	29	1	-	1	1
Hawaii	17	-	18	-	5	163	4	-	18	-	17	74	-	42	4
Guam	1	U	10	U	1	90	-	U	5	U	-	-	U	2	4
P.R.	-	-	63	-	-	15	12	-	138	-	10	1	1	26	13
V.I.	-	U	4	U	6	-	-	U	3	U	-	-	U	-	-
Pac. Trust Terr.	-	U	-	U	-	-	-	U	3	U	-	-	U	-	-

*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 October 12, 1985 and October 13, 1984 (41st Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1985	Cum. 1984	1985	Cum. 1985	Cum. 1984	Cum. 1985	Cum. 1985	Cum. 1985	Cum. 1985
UNITED STATES	19,897	21,918	3	16,537	16,713	135	291	612+11	4,180
NEW ENGLAND	462	412	1	566	507	3	11	8	20
Maine	13	6	-	39	21	-	-	-	-
N.H.	36	12	-	15	25	-	-	1	1
Vt.	5	1	1	7	7	-	-	-	1
Mass.	230	237	-	340	284	3	8	6	11
R.I.	14	16	-	42	37	-	-	1	-
Conn.	164	140	-	123	133	-	3	-	7
MID ATLANTIC	2,830	2,971	-	3,010	3,013	2	43	33+1	439
Upstate N.Y.	212	254	-	532	474	-	12	9	99
N.Y. City	1,723	1,830	-	1,462	1,217	1	23	5	-
N.J.	547	516	-	401	675	1	7	4	36
Pa.	348	371	-	615	647	-	1	15	304
E.N. CENTRAL	806	1,048	1	2,031	2,155	2	34	40	150
Ohio	115	190	1	353	395	-	10	28	27
Ind.	71	109	-	251	252	-	3	4	21
Ill.	381	374	-	868	901	1	13	6	28
Mich.	187	311	-	443	472	-	6	2	22
Wis.	52	64	-	116	135	1	2	-	52
W.N. CENTRAL	179	299	-	461	513	40	13	41+1	761
Minn.	37	80	-	100	85	1	6	-	150
Iowa	17	11	-	49	55	-	3	1	130
Mo.	95	151	-	222	254	25	3	7	42
N. Dak.	2	9	-	8	11	-	-	1	108
S. Dak.	5	-	-	25	18	8	-	2	258
Nebr.	6	11	-	11	27	2	1	3	32
Kans.	17	37	-	46	63	4	-	27	41
S. ATLANTIC	5,073	6,448	-	3,389	3,533	6	34	291+2	1,094
Del.	30	14	-	28	46	1	-	3	1
Md.	349	405	-	282	334	-	11	26	544
D.C.	271	253	-	132	144	-	-	-	-
Va.	239	333	-	311	361	1	3	19	148
W. Va.	20	15	-	90	110	-	1	1	26
N.C.	536	664	-	429	520	4	4	123	11
S.C.	654	619	-	421	425	-	1	69	60
Ga.	-	1,115	-	573	555	-	3	44	167
Fla.	2,974	3,030	-	1,123	1,038	-	11	6	137
E.S. CENTRAL	1,727	1,544	-	1,450	1,553	7	5	65+3	212
Ky.	54	82	-	346	357	-	1	11	27
Tenn.	497	401	-	422	454	5	2	30	65
Ala.	513	506	-	439	475	1	2	14	115
Miss.	663	555	-	243	267	1	-	10	5
W.S. CENTRAL	4,784	5,360	-	2,074	1,964	52	26	117+4	699
Ark.	264	169	-	215	215	31	-	14	113
La.	857	973	-	303	267	-	-	2	17
Okla.	149	175	-	211	185	16	2	81	90
Tex.	3,514	4,043	-	1,345	1,297	5	24	20+4	479
MOUNTAIN	558	486	1	431	456	15	11	14	345
Mont.	6	3	-	46	17	4	-	6	161
Idaho	5	21	-	22	27	-	-	-	9
Wyo.	8	7	-	5	1	-	-	4	18
Colo.	137	134	U	49	55	2	4	2	21
N. Mex.	106	64	-	73	87	2	4	-	11
Ariz.	251	164	-	197	208	4	3	-	112
Utah	8	18	1	12	33	3	-	-	4
Nev.	37	75	-	27	28	-	-	2	9
PACIFIC	3,478	3,350	-	3,125	3,019	8	114	3	460
Wash.	80	128	-	194	153	-	1	-	4
Oreg.	84	92	-	107	123	1	5	-	4
Calif.	3,259	3,064	U	2,593	2,520	4	103	3	449
Alaska	2	5	-	81	51	3	1	-	3
Hawaii	53	61	-	150	172	-	4	-	-
Guam	2	-	U	30	44	-	-	-	-
P.R.	678	644	-	293	292	-	2	-	32
V.I.	3	8	U	1	4	-	52	-	-
Pac. Trust Terr.	13	-	U	16	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending October 12, 1985 (41st Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	705	472	150	44	15	24	52
Boston, Mass.	207	130	42	12	8	15	22
Bridgeport, Conn.	45	26	14	2	2	1	2
Cambridge, Mass.	30	21	7	2	-	-	2
Fall River, Mass.	22	17	3	2	-	-	-
Hartford, Conn.	67	39	17	8	1	2	2
Lowell, Mass.	25	18	6	1	-	-	4
Lynn, Mass. §	16	16	-	-	-	-	-
New Bedford, Mass.	28	23	4	1	-	-	1
New Haven, Conn.	57	35	15	4	1	2	4
Providence, R.I.	53	44	7	1	-	1	2
Somerville, Mass.	5	4	1	-	-	-	-
Springfield, Mass.	55	32	14	6	2	1	9
Waterbury, Conn.	34	28	4	2	-	-	1
Worcester, Mass.	61	39	16	3	1	2	3
MID ATLANTIC	2,778	1,789	622	220	72	75	121
Albany, N.Y.	50	31	13	3	1	2	-
Allentown, Pa.	14	9	5	-	-	-	-
Buffalo, N.Y.	101	68	19	4	4	6	4
Camden, N.J.	39	22	11	5	1	-	-
Elizabeth, N.J.	23	17	4	2	-	-	3
Erie, Pa.†	31	23	6	-	2	-	1
Jersey City, N.J.	57	35	15	7	-	-	1
N.Y. City, N.Y.	1,548	956	356	154	44	38	65
Newark, N.J.	66	26	13	16	5	6	5
Paterson, N.J.	36	19	10	5	1	1	3
Philadelphia, Pa.	387	252	100	12	6	17	19
Pittsburgh, Pa.†	34	26	7	-	1	-	2
Reading, Pa.	39	34	4	1	-	-	4
Rochester, N.Y.	123	100	16	3	1	3	6
Schenectady, N.Y.	29	26	3	-	-	-	1
Scranton, Pa.†	19	16	2	1	-	-	-
Syracuse, N.Y.	88	67	15	2	4	-	2
Trenton, N.J.	35	17	14	3	-	1	1
Utica, N.Y.	24	19	4	1	-	-	3
Yonkers, N.Y.	35	26	5	1	2	1	1
E.N. CENTRAL	2,323	1,618	421	132	62	89	97
Akron, Ohio	51	31	13	2	1	4	-
Canton, Ohio	41	32	6	2	1	-	6
Chicago, Ill.§	553	462	11	26	16	37	16
Cincinnati, Ohio	152	110	33	3	2	4	16
Cleveland, Ohio	161	109	39	4	3	6	4
Columbus, Ohio	133	77	29	15	5	7	4
Dayton, Ohio	118	76	37	4	1	-	4
Detroit, Mich.	284	166	68	30	12	8	4
Evansville, Ind.	40	30	8	2	-	-	2
Fort Wayne, Ind.	43	32	6	2	1	2	3
Gary, Ind.	18	8	6	3	1	-	2
Grand Rapids, Mich.	77	55	17	2	1	2	5
Indianapolis, Ind.	169	98	48	9	9	5	5
Madison, Wis.	46	31	5	6	-	4	1
Milwaukee, Wis.	138	96	27	8	2	5	8
Peoria, Ill.	49	36	9	2	1	1	7
Rockford, Ill.	41	30	8	-	1	2	1
South Bend, Ind.	57	43	6	7	-	1	6
Toledo, Ohio	101	63	29	5	3	1	3
Youngstown, Ohio	51	33	16	-	2	-	-
W.N. CENTRAL	724	503	146	29	17	29	33
Des Moines, Iowa	63	39	19	1	3	1	6
Duluth, Minn.	23	17	4	-	1	1	-
Kansas City, Kans.	25	16	5	3	1	-	-
Kansas City, Mo.	135	93	27	8	1	6	9
Lincoln, Nebr.	38	29	7	-	1	1	1
Minneapolis, Minn.	100	69	15	10	-	6	3
Omaha, Nebr.	88	58	20	2	3	5	6
St. Louis, Mo.	148	114	23	2	2	7	5
St. Paul, Minn.	70	48	16	1	3	2	1
Wichita, Kans.	34	20	10	2	2	-	2
S. ATLANTIC	1,111	679	255	96	42	38	52
Atlanta, Ga.	118	69	30	15	1	3	2
Baltimore, Md.	217	139	49	18	9	2	3
Charlotte, N.C.	88	53	21	4	4	6	12
Jacksonville, Fla.	84	51	20	6	6	1	3
Miami, Fla.	51	28	11	5	6	1	3
Norfolk, Va.	51	28	11	5	2	5	3
Richmond, Va.	80	49	18	5	4	4	7
Savannah, Ga.	33	27	5	1	-	-	2
St. Petersburg, Fla.	89	72	14	1	-	2	8
Tampa, Fla.	72	39	17	5	7	3	7
Washington, D.C.	198	99	55	30	3	11	2
Wilmington, Del.	30	25	4	1	-	-	-
E.S. CENTRAL	743	462	154	61	29	37	27
Birmingham, Ala.	105	63	18	11	7	6	-
Chattanooga, Tenn.	58	42	10	2	-	4	3
Knoxville, Tenn.	49	33	12	3	1	-	-
Louisville, Ky.	99	63	16	11	2	7	3
Memphis, Tenn.	196	116	48	17	6	9	7
Mobile, Ala.	58	33	12	6	5	2	2
Montgomery, Ala.	62	38	18	2	4	-	4
Nashville, Tenn.	116	74	20	9	4	9	8
W.S. CENTRAL	1,320	761	313	123	72	51	62
Austin, Tex.	46	23	9	8	2	4	4
Baton Rouge, La.	38	28	7	-	2	1	2
Corpus Christi, Tex.	67	34	22	2	4	5	1
Dallas, Tex.	206	103	53	29	13	8	5
El Paso, Tex.	57	32	13	2	5	5	4
Fort Worth, Tex.	102	63	29	6	2	2	5
Houston, Tex.	333	186	76	35	26	10	7
Little Rock, Ark.	68	35	14	13	-	6	9
New Orleans, La.	103	58	29	10	5	1	-
San Antonio, Tex.	164	105	35	10	8	6	16
Shreveport, La.	32	24	7	-	1	-	2
Tulsa, Okla.	104	70	19	8	4	3	7
MOUNTAIN	645	402	128	45	32	38	21
Albuquerque, N.Mex.	72	48	14	3	5	2	3
Colo. Springs, Colo.	43	28	6	5	3	1	5
Denver, Colo.	129	66	29	8	7	19	3
Las Vegas, Nev.	75	46	22	5	1	1	4
Ogden, Utah	15	12	1	-	1	1	-
Phoenix, Ariz.	148	92	25	13	10	8	-
Pueblo, Colo.	19	15	4	-	-	-	2
Salt Lake City, Utah	52	27	11	4	5	5	-
Tucson, Ariz.	92	68	16	7	-	1	4
PACIFIC	1,764	1,119	381	135	65	60	108
Berkeley, Calif.	8	5	1	2	-	-	-
Fresno, Calif.	72	40	18	8	3	3	5
Glendale, Calif.	32	19	9	3	1	-	1
Honolulu, Hawaii	57	33	16	4	1	3	4
Long Beach, Calif.	81	53	19	5	3	1	14
Los Angeles, Calif.	530	334	111	46	23	12	19
Oakland, Calif.	62	34	18	4	3	3	8
Pasadena, Calif.	47	29	11	3	1	3	2
Portland, Oreg.	96	62	19	3	6	6	7
Sacramento, Calif.	121	79	22	11	5	4	8
San Diego, Calif.	102	57	29	8	2	6	8
San Francisco, Calif.	158	99	34	16	5	4	7
San Jose, Calif.	160	102	31	13	8	6	14
Seattle, Wash.	135	93	28	7	2	5	2
Spokane, Wash.	57	47	8	-	1	1	7
Tacoma, Wash.	46	33	7	2	1	3	2
TOTAL	12,113	7,805††	2,570	885	406	441	573

*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.

Influenza – Continued

Reported by Div of Immunization, Center for Prevention Svcs, Influenza Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Effective influenza vaccination programs require planning well in advance and should be completed, whenever possible, before the beginning of the influenza season. Although the earliest laboratory-confirmed cases of influenza are often documented in October, in recent years, peak activity has only rarely occurred before January. In most years, therefore, influenza vaccine can be administered from mid-October through December; if it is given much earlier, protection may be waning when there is still widespread influenza activity. It should also be emphasized, however, that the vaccine can be given until the time influenza viruses are isolated from patients in the local community, and thereafter, although temporary chemoprophylaxis with amantadine may be indicated (*2*).

Twenty-one states and Chicago, New York City, and the District of Columbia are providing influenza vaccine to high-risk groups on an annual basis. Funding sources for these activities vary considerably, ranging from fee systems to special appropriations by the state legislature. To supplement these efforts, CDC has expanded its activities to improve vaccination rates among adults, especially in those targeted to receive influenza and pneumococcal polysaccharide vaccines. These CDC activities will include educational programs for patients and medical-care personnel, surveillance activities, and evaluations of the organization, implementation, and outcome of vaccination programs in hospitals and other settings.

References

1. CDC. U.S. immunization surveys (annual).
2. ACIP. Prevention and control of influenza. MMWR 1985;34:261-8, 273-5.
3. ACIP. Update: pneumococcal polysaccharide vaccine usage—United States. MMWR 1984;33: 273-6, 281.

Implementation of Recommendations for Influenza Control

A symposium, "Options for the Control of Influenza," was organized by CDC and held April 20-25, 1985, in Keystone, Colorado, as part of the 1985 University of California, Los Angeles, Symposia series. The program included a roundtable discussion to consider ways to improve influenza control measures in several populations. This article summarizes the major viewpoints emerging from that discussion and includes suggestions for expanding the use of influenza vaccine.*

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*Invited participants in the roundtable discussion were: WP Glezen, MD, Baylor College of Medicine, Houston, Texas; P Wright, MD, Vanderbilt University School of Medicine, Nashville, Tennessee; CB Hall, MD, University of Rochester School of Medicine, Rochester, New York; R Harmon, MD, Maricopa County Health Department, Tucson, Arizona (representing the National Association of County Health Officers); S Schoenbaum, MD, Harvard Community Health Plan, Boston, Massachusetts; RG Douglas, Jr, MD, Cornell University Medical Center, New York City; A Monto, MD, University of Michigan School of Public Health, Ann Arbor; ED Kilbourne, MD, Mount Sinai School of Medicine, New York City; GG Jackson, MD, University of Illinois School of Medicine, Chicago; J Chin, MD, California Dept of Health Svcs (representing the Association of State and Territorial Health Offices, the Conference of State and Territorial Epidemiologists, and the ACIP); WH Barker, MD, University of Rochester Medical Center, Rochester, New York; D Fedson, MD, University of Virginia Medical Center, Charlottesville (representing the ACIP); E Doherty, Executive Director, Colorado Gerontological Society, Denver; D Karzon, MD, Vanderbilt University School of Medicine, Nashville, Tennessee; F Ruben, MD, Montefiore Hospital, Pittsburgh, Pennsylvania; P Menzel, PhD, Pacific Lutheran University, Tacoma, Washington; B Weiss, Director of Nursing Svcs, Windsor Health Care, Windsor, Colorado (representing the Colorado Health Care Association); J Peterson, Wheatridge, Colorado (representing the Colorado Association of Homes and Svcs for the Aging); P McWilliams, Fort Collins, Colorado (representing the Citizen's Coalition for Nursing Home Reform). Other symposium participants attended the discussions, which were open to all registrants.

Influenza Control — Continued

TARGET GROUPS

Among the topics discussed were improving implementation of the current U.S. Public Health Service (PHS) Immunization Practices Advisory Committee (ACIP) recommendations for prevention and control of influenza among persons in the high-priority groups for annual vaccination (*1*) and broadening those recommendations to include persons not currently included in the ACIP's high-priority groups.

Children. Morbidity rates during influenza epidemics are often highest among children; children also are believed to have an important role in disseminating infection. Therefore, annual immunization of children who are household contacts of high-risk persons was suggested. For this suggestion to be implemented effectively, cooperation between pediatricians and other physicians providing care for families with high-risk persons must be encouraged. The high-risk groups should be expanded to include children with reactive airway disease.

Healthy Adults. With improved community surveillance and application of rapid diagnostic methods, offering vaccine to healthy adults when an influenza epidemic begins could lessen the impact of the epidemic.

Outbreaks may last 6-8 weeks in an average community. Vaccine may be administered when influenza-like illness is first identified. In addition, during type A epidemics, amantadine can be given to provide protection during the 2-week postvaccination period before effective antibody levels have developed. The following groups of healthy adults should be given special consideration as vaccine candidates during epidemics:

1. Household contacts of high-risk children or adults.
2. Persons who provide essential community services or whose absence from work would have greater than normal consequences for the individual or employer.
3. Pregnant women whose third trimester coincides with the influenza season. Except for data from pandemic years, data suggesting an increased risk of influenza-related complications in pregnant women is primarily anecdotal. However, immunizing women who are in their third trimester during an influenza epidemic may provide antenatal protection to the mother and the fetus. Passive transfer of maternal antibody might also protect neonates born during or shortly before an influenza epidemic.
4. Resident students at schools or colleges. Based on experience with military recruits, large-scale influenza immunization of student populations could potentially reduce the impact of outbreaks of disease in these large groups of young adults (*2*).

Noninstitutionalized High-Risk Adults. The high immunization levels recommended by the ACIP will require a sustained vigorous effort. Systematic immunization programs can be incorporated into routine care of high-risk adults. Many high-risk persons could be vaccinated when they encounter health-care providers during the late fall or early winter. High-risk persons who do not require routine follow-up during the year should have special appointments made for the purpose of influenza immunization. Review of patients' immunization status should be routine when patients schedule visits. A uniform adult immunization record card could be developed to provide the patient, physician, and office staff with immediate information about immunization status. The card could be used to document that a patient was offered vaccine at the appropriate time of year. High-risk patients could indicate by signature if they elect not to receive vaccine. This latter practice would reinforce the importance attached to routine immunizations.

Institutionalized High-Risk Adults. Most nursing homes organize programs for annual immunizations, but many of these programs could be improved to reach the ACIP's objective of an 80% vaccination rate. Guidelines could be developed to assist such institutions in implementing immunization programs. Certain mandatory requirements, including the following, could also be considered:

Influenza Control — Continued

1. An approved immunization program for residents and staff as a requirement for licensure of the institution.
2. An approved immunization program as a requirement for the institution to be eligible for Medicare reimbursement.
3. An influenza immunization policy established as a standard of medical practice by the American Medical Association or other group.

In many nursing homes, separate, signed consent for influenza immunization is required. These requirements pose a barrier to immunization of institutionalized adults. The barrier could be removed if permission for annual influenza immunization were obtained when the resident is admitted to the home. Educational materials suitable for staff, residents, and family members are needed.

OTHER ISSUES

Research Needs. Additional data are needed to: (1) define the level of immunization necessary to prevent influenza outbreaks through the establishment of "herd immunity"; (2) understand the basis of diminished immune response to, and efficacy of, vaccine in the elderly; (3) monitor the immune status of high-risk persons who are revaccinated annually; and (4) document the costs and benefits of immunization in different groups.

Antiviral Chemotherapy and Chemoprophylaxis. In addition to specific recommendations for using amantadine in therapy and prophylaxis, particularly for high-risk persons (*1*), amantadine was recommended for all members of households with high-risk persons once a suspected index case of influenza A infection occurs. Improved rapid diagnostic tests would facilitate implementation of this recommendation. The frequency and significance of amantadine-resistant strains should also be evaluated.

Vaccination Costs and Liability. Three complex issues affecting implementation of immunization recommendations were recognized: (1) detection and compensation for vaccine-associated reactions; (2) relative benefits of health-care resources used for prevention of disease, compared with treatment of illness; and (3) current discrepancy between Medicare reimbursement for pneumococcal vaccine and influenza vaccine.

Reported by C Wilfert, MD, Duke University School of Medicine, Durham, North Carolina; Influenza Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Influenza epidemics are generally unpredictable in their frequency and severity but normally are associated with increased hospitalizations and mortality among the elderly and persons with certain chronic illnesses (*3*). For example, surveillance during 1984-1985, when influenza A(H3N2) viruses predominated, demonstrated the highest mortality since 1975-1976, a situation that could not have been anticipated in advance of the epidemic. Over 80% of excess mortality occurs among persons 65 years and older.

The ACIP strongly recommends annual immunization of high-risk persons with inactivated influenza vaccine as the most important way to reduce the impact of influenza. Despite these recommendations, and the apparent benefits of influenza vaccination programs (*4,5*), the use of inactivated influenza vaccine by high-risk groups remains low, averaging 20% (*6*), with 55%-60% of residents in U.S. nursing homes receiving vaccine (*7*).

The suggestions arising from the Keystone symposium are an extension of existing ACIP recommendations and PHS policies. They were developed to assist persons concerned about the occurrence of severe influenza infections, particularly among high-risk patients. Certain general trends appear in the suggestions:

1. A desire to provide protection for high-risk persons by immunization or amantadine chemoprophylaxis of household contacts, particularly at times of epidemic activity. This approach is an extension of the recent ACIP recommendations that medical personnel caring for high-risk persons should be vaccinated to prevent nosocomial outbreaks and to reduce the opportunity for virus to be introduced into institutions caring for high-risk persons.

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2. A need to establish the concept that providing influenza vaccine to high-risk persons is an ongoing responsibility for medical-care personnel, rather than an option.
3. An attempt to eliminate administrative obstacles hindering delivery of vaccine in physician offices, in clinics, and in other institutions.

The effectiveness of these suggestions depends on medical professionals' being convinced that worthwhile reductions in influenza illness and its complications can be achieved, although influenza vaccine does not guarantee protection to each person who receives it. Furthermore, physicians must recognize that, because the frequency of severe complications from influenza is low, the number of patients whose hospitalization is prevented may be small in any one setting. Just as the cumulative impact of influenza epidemics is largely due to the high attack rate, so the benefit from vaccination or chemoprophylaxis and therapy may be seen only in the accumulated observations from multiple medical-care settings. Institution of preventive-care programs requires commitment from physicians. This commitment is based on the belief that their individual efforts to provide immunization will contribute to an overall reduction of morbidity and mortality, even if each physician sees little effect.

A large proportion of persons who die of pneumonia and influenza may have had contact with a health-care provider either in the hospital or in an outpatient clinic during the previous year but failed to receive influenza vaccine (*8,9*). Systematic efforts to identify patients at high risk of influenza-related complications and to offer vaccine at the time of discharge or during visits to outpatient clinics and offices have been highly successful in increasing the proportion of patients who are immunized (*9*). Post-card reminder systems have also been shown to be effective, particularly for elderly patients who do not require routine follow-up (*10,11*).

Little is known about the number of medical-care facilities that conduct influenza vaccination programs for employees, how such programs are organized, and how successful they may be in increasing the proportion of medical-care personnel who are immunized. Available data, while extremely limited, suggest that many of these individuals are reluctant to receive influenza vaccine (*12,13*) primarily because of unfounded concerns about adverse reactions (*12*). Educational and promotional campaigns may help dispel these concerns and improve perceptions concerning the efficacy of the vaccine. More definitive data concerning the efficacy of influenza vaccine in reducing nosocomial spread of influenza may also be needed to convince medical-care personnel of the need for vaccination (*12,13*).

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Update: International Outbreak of Restaurant-Associated Botulism — Vancouver, British Columbia, Canada

A restaurant in Vancouver, British Columbia, Canada has been the source of two discrete clusters of botulism cases during the latter half of summer 1985. The eating establishment, the White Spot Restaurant at 1616 Georgia Street, is located near Stanley Park, a popular attraction. Eight cases have been recognized in the first cluster, which followed a meal at this restaurant between July 26 and August 2. An additional 26 cases have been recognized in the second cluster, which followed meals eaten between August 29 and September 5. Cases have been reported in Canada, the United States, and the Netherlands.

A notable feature of this outbreak has been the slow development and progression of symptoms, up to 10 days following exposure. Because cases were widely dispersed and initially involved atypical manifestations of acute botulism, many practitioners and specialists were misled in their primary diagnosis. Consequently, many of these patients were hospitalized with a range of other neurologic and psychiatric diagnoses.

Type B botulinal toxin was detected in the serum of three patients. Seven patients have required ventilator support. There have been no fatalities. A case-control study demonstrated two sandwiches on the menu to be highly associated with illness, and further analysis implicated a preparation of chopped garlic in soybean oil as the specific vehicle of intoxication. It is suspected that the product was unrefrigerated for several months before being opened. Control measures included voluntary withdrawal of the implicated menu items and the chopped garlic product from all White Spot Restaurants.

Reported by FJ Blatherwick, MD, SH Peck, MB, City of Vancouver Health Dept, Vancouver, British Columbia, GB Morgan, ME Milling, Field Operations Directorate, Health Protection Br, Health and Welfare, Canada; GD Kettyls, MD, Provincial Laboratories, Vancouver, TJ Johnstone, MB, Provincial Epidemiologist, DW Bowering, MD, Field Epidemiologist, Laboratory Centre for Disease Control, Provincial Ministry of Health, Victoria, British Columbia; U.S. Food and Drug Administration; Enteric Diseases Br, Div of Bacterial Diseases, Center for Infectious Diseases, CDC.

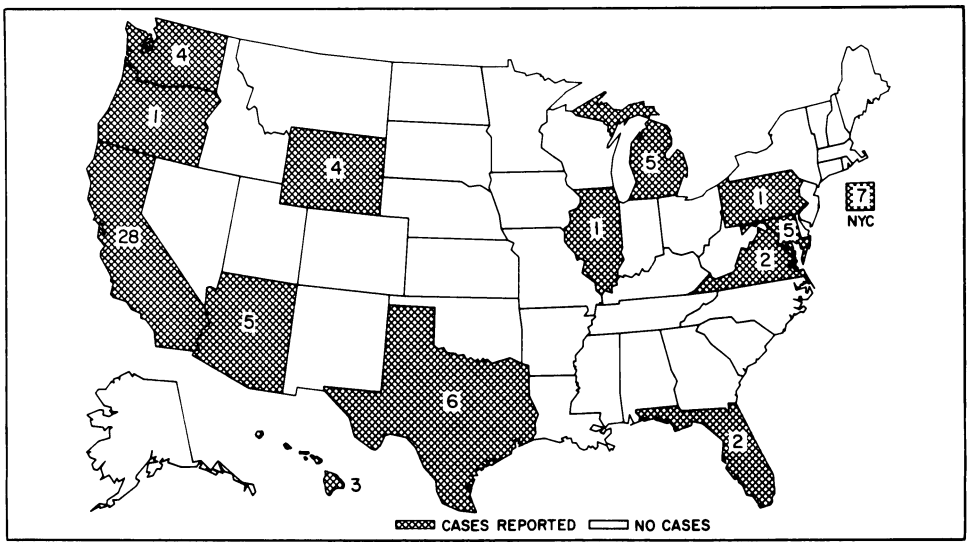
Editorial Note: The U.S. Food and Drug Administration has decided that the garlic product is safe if it is kept refrigerated as the label directs, so it is still being sold in the United States. No persons who consumed this product in the United States have been reported with botulism. However, further patients with unusual neurologic illness and travel histories to Vancouver within the time periods in question may yet be diagnosed retrospectively as cases of botulism associated with this outbreak. Clinicians should contact their provincial or state epidemiologist if this possibility is entertained. Cases outside Canada or the United States should be reported to Chief, Communicable Disease Division, Bureau of Epidemiology, Laboratory Centre for Disease Control, Ottawa, Canada.

Notice to Readers

Table V. Years of Potential Life Lost

"Table V. Years of potential life lost, deaths, and death rates, by cause of death, and estimated number of physician contacts, by principal diagnosis, United States," which would normally appear in this issue, will be published next week.

FIGURE I. Reported measles cases — United States, weeks 37-40, 1985



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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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