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805 Proposed Changes in Format for Presentation of Notifiable Disease Report Data
810 Postponed Childbearing – United States, 1970–1987
817 Update: Influenza Activity – Worldwide, 1988–89
818 Racial Differences in Rates of Hepatitis B Virus Infection – United States, 1976–1980

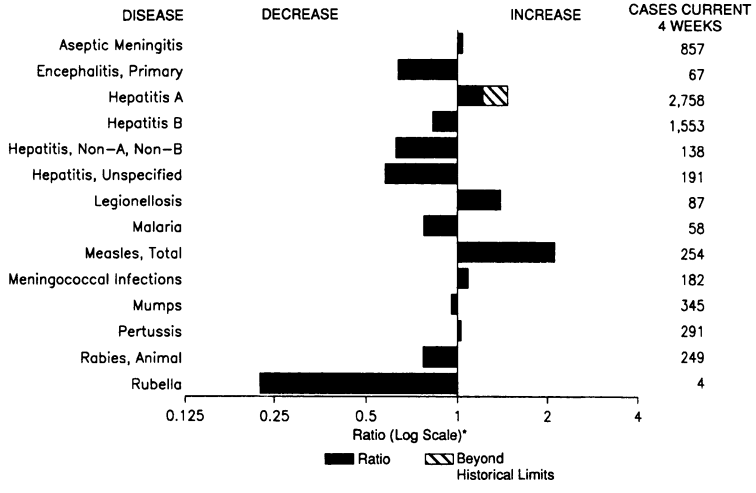
Current Trends

Proposed Changes in Format for Presentation of Notifiable Disease Report Data

This article introduces a proposed graphic format for displaying national notifiable disease data in the *MMWR*. The proposed format is designed to facilitate interpretation of these data and enable timely public health responses to changes in disease patterns.

National notifiable disease reporting is a basic component of public health surveillance in the United States (*1*). Disease data are reported weekly to CDC by state health departments and are published as Tables I through III in the *MMWR*. To enhance interpretation of these data, a bar graph (Figure 1) is proposed to replace Table I. This new format compares provisional reports over time and indicates

FIGURE 1. Notifiable disease reports, comparison of 4-week totals ending November 25, 1989, with historical data – United States

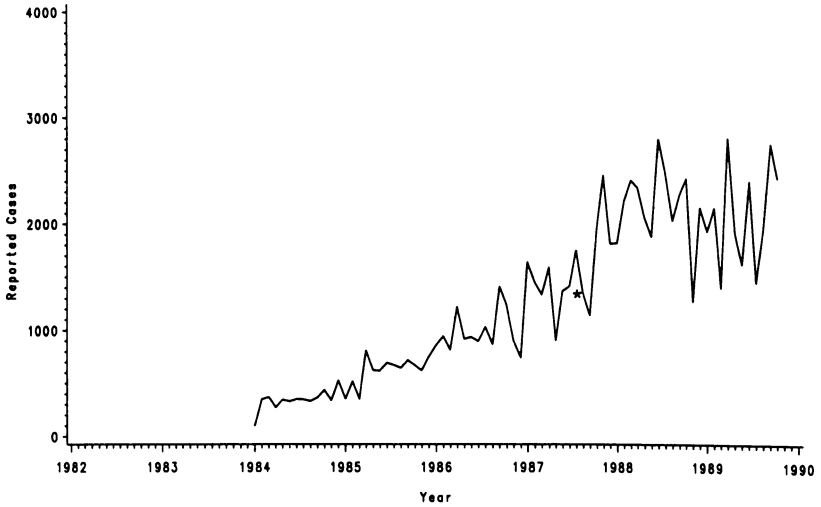


*Ratio of current 4-week total to mean of 15 4-week totals (from comparable, previous, and subsequent 4-week periods for past 5 years).

Proposed Changes — Continued

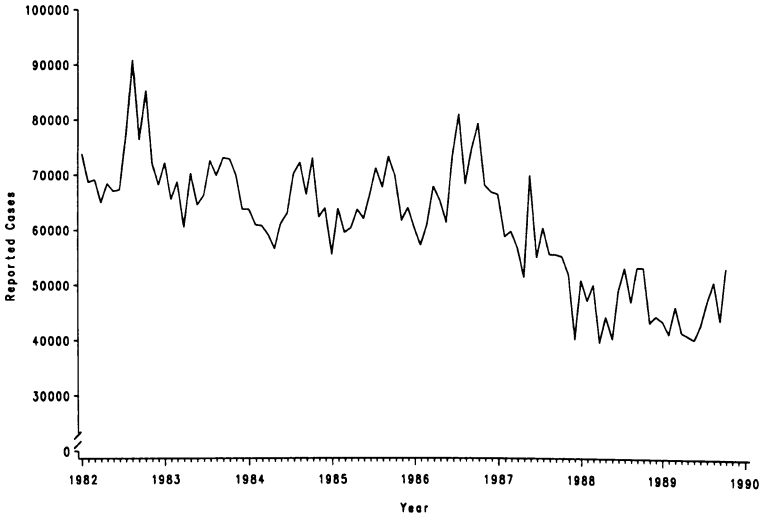
whether the number of reported cases of a disease for a specific reporting period differs from that of a previous period. In addition, line graphs would appear quarterly for four diseases (acquired immunodeficiency syndrome [AIDS], gonorrhea, syphilis, and tuberculosis) that may have secular trends but do not generally have substantial month-to-month changes in the reported number of cases (Figures 2–5). Proposed specific changes are described below.

FIGURE 2. Acquired immunodeficiency syndrome cases, by 4-week period of report — United States, 1984–1989



*Change in case definition.

FIGURE 3. Gonorrhea cases, by 4-week period of report — United States, 1982–1989



Proposed Changes — Continued

Figure 1

The current Table I ("Summary—cases of specified notifiable diseases, United States") would be replaced by a bar graph (Figure 1) that compares, for each disease, the number of cases reported in a 4-week period with the mean of 15 4-week totals (from comparable, previous, and subsequent 4-week periods for the past 5 years). For example, Figure 1 compares the number of reports for the 4 weeks ending November 25, 1989 (*MMWR* weeks 44–47), with the 5-year average for weeks 40–43, 44–47, and 48–51 of 1984–1988. For each disease, a horizontal bar indicates the ratio

FIGURE 4. Syphilis cases, by 4-week period of report — United States, 1982–1989

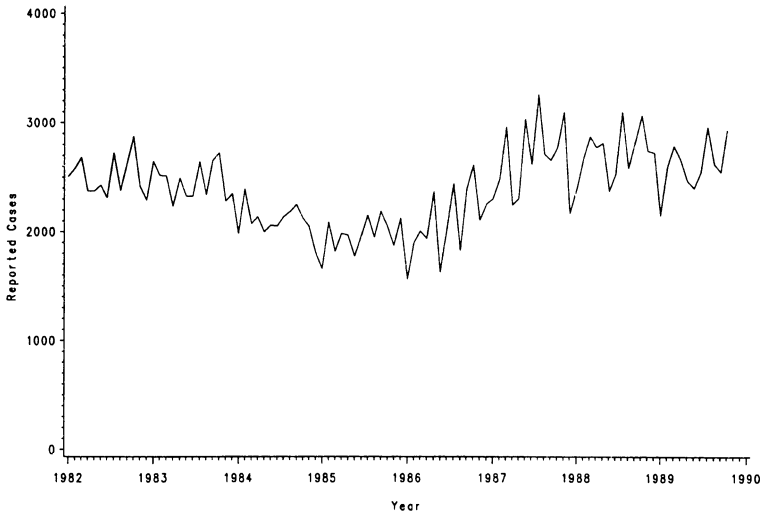
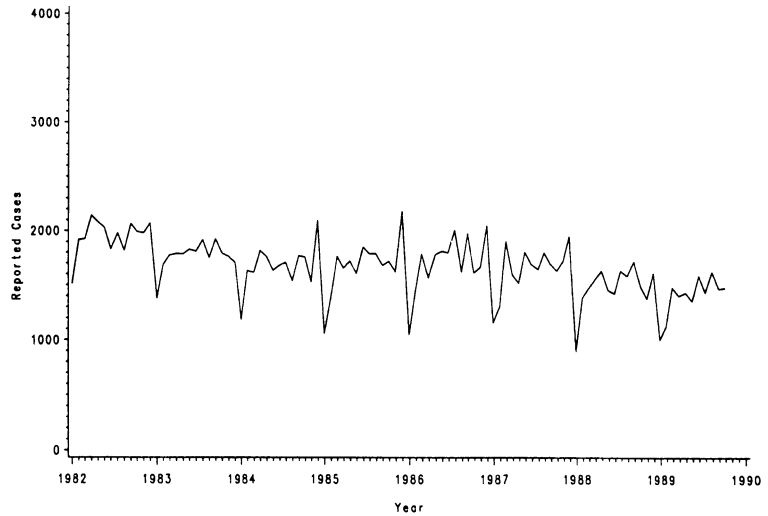


FIGURE 5. Tuberculosis cases, by 4-week period of report — United States, 1982–1989



Proposed Changes — Continued

of the current value to the 5-year average. Bars to the right and left of the vertical axis at "1" indicate increases and decreases, respectively, in the number of reported cases.

Striping in the bars in Figure 1 indicates whether the number of reported cases during the most recent 4-week period are higher or lower than historical limits. The limits show typical variability in the ratios and are computed as $1 \pm 2(SD/\overline{X})$, where SD = standard deviation and $\overline{X}$ = mean of the 15 4-week totals. When the current ratio is outside the limits, the elevated (or diminished) portion of the ratio is striped. If no striping is present, the current ratio is within historical limits.

A change in disease occurrence identified by this approach should be regarded as an indication for more detailed examination of the data and monitoring of succeeding reports. For example, a recent increase in measles incidence in February and March 1989 would have been readily apparent if presented in the proposed graph format. However, the graph alone should not be the basis for conclusions.

Figures 2–5

For diseases in which long-term variations in numbers of reported cases are more important than month-to-month variations (AIDS, gonorrhea, syphilis, and tuberculosis), line graphs (Figures 2–5) would appear quarterly. These graphs would reflect the provisional number of cases by 4-week periods since 1982.

Other Changes

- Selected diseases that appear in Table I, such as leprosy and toxic shock syndrome, would be listed in an expanded version of current Table II ("Notifiable diseases of low frequency, United States"); this table would be renumbered Table I and renamed "Summary—cases of specified notifiable diseases, United States" (Table 1).
- The monthly number of reported AIDS cases would be provided quarterly (Figure 2) rather than in the weekly *MMWR* tables.* AIDS reports are received at CDC monthly rather than weekly as is the case for the other notifiable diseases; thus, a

*AIDS data are published each month in the *HIV/AIDS Surveillance Report*; single copies are available free from the National AIDS Information Clearinghouse, P.O. Box 6003, Rockville, MD 20850.

TABLE 1. Summary — cases of specified notifiable diseases, United States, week ending November 25, 1989

Disease	Cum. 1989	Disease	Cum. 1989
Anthrax	—	Plague	4
Botulism: foodborne	24	Poliomyelitis, paralytic	—
infant	18	Psittacosis	89
other	4	Rabies, human	1
Brucellosis	76	Syphilis: civilian	37,768
Cholera	—	military	226
Congenital rubella syndrome	2	Syphilis, congenital, age <1 year	243
Diphtheria	3	Tetanus	41
Encephalitis, post-infectious	75	Toxic shock syndrome	338
Gonorrhea: civilian	622,147	Trichinosis	19
military	9,871	Tuberculosis	19,104
Leprosy	154	Tularemia	135
Leptospirosis	97	Typhoid fever	447
Measles: imported	643	Typhus fever, tickborne (RMSF)	594
indigenous	13,168		

Proposed Changes — Continued

plot of the 4-week (28 days) totals shown for AIDS (Figure 2) may differ from a plot of the monthly (28–31 days) surveillance data.

- Tables III and IV would be renumbered II and III, respectively, but otherwise would remain unchanged, except for the deletion of AIDS reports. The annual *MMWR Summary of Notifiable Diseases* would also remain unchanged and would continue to provide yearly state-specific disease report data in tables and graphs.

Reported by: Statistics and Surveillance Br, Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office, CDC.

Editorial Note: Several caveats may influence the interpretation of notifiable disease surveillance data presented in the *MMWR* tables and figures. For example, the data are provisional and subject to change because of late reports or corrections in case classification. Additionally, variations in reporting may result from differences in transmission of public health surveillance information (e.g., batch reporting of cases at the end of a month vs. weekly reports) or from changes or differences in case definitions. Also, surveillance data are generated by a process that may result in incomplete reports or underreporting (*1*); nevertheless, these data are useful indicators of trends in disease incidence.

The method illustrated by Figure 1 will not detect all epidemics for at least three reasons. First, differences in the number of case reports from the 5-year baseline value do not incorporate statistical theory, i.e., the limits are not confidence or prediction intervals and should not be interpreted as such. Rather, the limits represent an analytic framework for identifying aberrations in the number of reports during a specific time period. Second, use of the 5-year average as the baseline for comparison potentially could affect interpretation, particularly if knowledge about a disease is rapidly evolving or if large variations occurred during the baseline period. Third, regular seasonal fluctuations in disease occurrence will not be detected by this approach since a 4-week period is compared with the same season in previous years.

CDC is examining diverse statistical techniques for detecting aberrations in public health surveillance data (*2*). Techniques that might be useful are various parametric approaches (including the scan statistic [*3,4*] and a normal theory confidence interval calculated similarly to the historical limits as described above) and a nonparametric bootstrap approach (*5*). Other methods under consideration are the ratio of two Poisson random variables for low-frequency diseases, a Box-Jenkins time series approach incorporating the cusum statistic, and Bayesian and nonlinear time series methods. In addition, CDC is evaluating potential mapping and graphic changes in current Tables III and IV to improve interpretation of these data.

Comments and suggestions on the proposed new format or on statistical techniques for detecting aberrations in public health surveillance data are welcome and should be provided by January 12, 1989, to G. David Williamson, Ph.D., Statistics and Surveillance Branch, Division of Surveillance and Epidemiologic Studies, Epidemiology Program Office, CDC, Mailstop C08, Atlanta, GA 30333.

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Postponed Childbearing — United States, 1970–1987

Maternal age at childbirth is an important determinant of the health of the mother and child. Birth registration data—reported by states and the District of Columbia to CDC's National Center for Health Statistics—provide demographic and health information on mothers and their babies and permit examination of age-related trends in childbearing.

The annual birth rate for women aged 30–34 years declined from 73 per 1000 women in 1970 to 52 per 1000 in 1975, but rose to 71 per 1000 in 1987 (*1*) (Table 1). Rates for women in the peak childbearing years (20–29) remained generally stable during 1975–1987.

A large proportion of the overall increase in birth rate for women aged 30–34 years is attributable to an increase in the rate of first births, which more than doubled (from 8.0 to 18.4 first births per 1000 women) between 1975 and 1987 (Figure 1). In contrast, the rate of first births for women aged 20–24 years ranged from 52.4 to 57.3 over this period.

The distribution and number of first births among women aged ≥30 years have also changed dramatically. In 1970, 4% of women having their first child were aged ≥30 years, compared with 16% in 1987 (*1,2*). The number of first births to women aged ≥30 years increased from 56,728 in 1970 to 250,304 in 1987.

Reported by: Div of Vital Statistics, National Center for Health Statistics, CDC.

Editorial Note: Several demographic, social, and economic factors appear to be associated with this trend toward later childbearing. From 1946 to 1964, children were born at record high rates in the United States. As a result, between 1970 and 1987, the number of women aged 30–44 years increased by 59% (from 17.7 million to 28.1 million) (*3,4*). Concomitantly, the proportion of women who were childless when they reached 30 years of age increased from 15% in 1970 to 31% in 1987. As a result, an unprecedented number of women were "at risk" for a first birth in later childbearing years. Approximately half of childless women aged 30–34 years intend to have at least one child (*5*).

Women aged ≥30 years experiencing their first childbirth in 1987 had several characteristics with important positive consequences for health. Nearly half (49%) were college graduates, compared with 19% of first-time mothers in their 20s (*6*).

TABLE 1. Rates of live births per 1000 women, by age of mother — United States, selected years, 1970–1987

	Age group (yrs)							
Year	15–19	20–24	25–29	30–34	35–39	40–44	45–49	15–44*
1970	68.3	167.8	145.1	73.3	31.7	8.1	0.5	87.9
1975	55.6	113.0	108.2	52.3	19.5	4.6	0.3	66.0
1980	53.0	115.1	112.9	61.9	19.8	3.9	0.2	68.4
1985	51.3	108.9	110.5	68.5	23.9	4.0	0.2	66.2
1986	50.6	108.2	109.2	69.3	24.3	4.1	0.2	65.4
1987	51.1	108.9	110.8	71.3	26.2	4.4	0.2	65.7

Source: National Center for Health Statistics. Vital Statistics of the United States, 1986. Vol. I. Natality. Advance Report of Final Natality Statistics, 1987.

*Rate computed by using total births, regardless of mother's age, as numerator and women aged 15–44 years as denominator.

Postponed Childbearing — Continued

Eleven percent were unmarried when their child was born, compared with 22% of first-time mothers in their 20s. More than two thirds were employed, and 91% received prenatal care beginning in the first trimester. In addition, well-educated women are more likely to have good diets, gain adequate weight during pregnancy, and be nonsmokers (*7–9*).

The trend in postponed childbearing is likely to continue. The proportion of college graduates among women aged 30–34 years increased between 1975 (16%) and 1987 (24%), and these women are marrying at older ages (*10*). Therefore, women in their 30s of higher socioeconomic status will likely account for an increasing proportion of first births.

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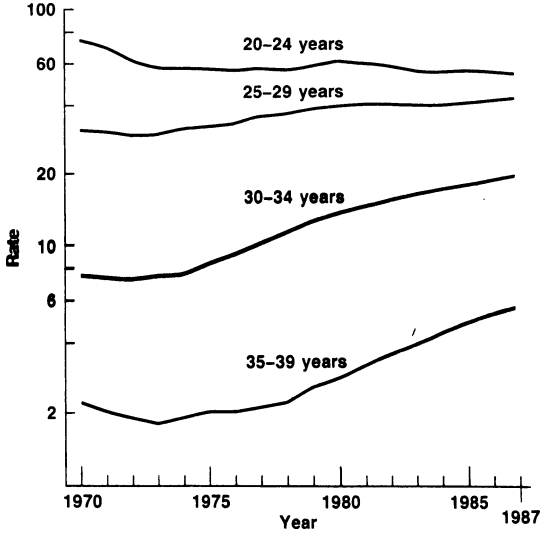
FIGURE 1. First-birth rates per 1000 women, by age of mother — United States, 1970–1987



Postponed Childbearing — Continued

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

Disease	47th Week Ending			Cumulative, 47th Week Ending		
	Nov. 25, 1989	Nov. 26, 1988	Median 1984-1988	Nov. 25, 1989	Nov. 26, 1988	Median 1984-1988
Acquired Immunodeficiency Syndrome (AIDS)	153	U*	209	31,703	27,813	12,110
Aseptic meningitis	158	157	157	8,997	6,346	9,458
Encephalitis: Primary (arthropod-borne & unspec)	8	11	23	794	748	1,112
Post-infectious	-	-	-	75	111	103
Gonorrhea: Civilian	8,314	12,610	16,898	622,147	629,962	762,091
Military	156	236	347	9,871	10,596	15,326
Hepatitis: Type A	487	562	468	31,627	23,792	20,602
Type B	333	453	484	20,356	20,415	23,325
Non A, Non B	33	50	59	2,101	2,305	3,202
Unspecified	81	77	90	2,074	2,113	3,972
Legionellosis	14	12	14	987	907	747
Leprosy	6	4	4	154	155	210
Malaria	14	12	17	1,127	926	926
Measles: Total†	6	77	32	13,811	2,726	2,726
Indigenous	5	23	23	13,168	2,399	2,399
Imported	1	54	1	643	327	327
Meningococcal infections	39	29	42	2,368	2,539	2,406
Mumps	118	69	69	4,927	4,197	4,197
Pertussis	36	96	41	3,284	2,781	2,781
Rubella (German measles)	1	1	3	391	190	502
Syphilis (Primary & Secondary): Civilian	611	663	557	37,768	34,648	25,198
Military	1	2	2	226	142	147
Toxic Shock syndrome	4	7	6	338	327	327
Tuberculosis	235	337	453	19,104	19,114	19,285
Tularemia	1	1	2	135	178	178
Typhoid Fever	7	11	10	447	369	341
Typhus fever, tick-borne (RMSF)	8	3	3	594	577	671
Rabies, animal	67	47	72	4,165	3,919	4,914

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1989		Cum. 1989
Anthrax	-	Leptospirosis (Fla. 1, Tenn. 5, La. 2, Hawaii 1)	97
Botulism: Foodborne	24	Plague	4
Infant (Hawaii 1)	18	Poliomyelitis, Paralytic	-
Other	4	Psittacosis (Va. 1, Tenn. 1)	89
Brucellosis	76	Rabies, human	1
Cholera	-	Tetanus	41
Congenital rubella syndrome	2	Trichinosis	19
Congenital syphilis, ages < 1 year	243		
Diphtheria	3		

*Because AIDS cases are not received weekly from all reporting areas, comparison of weekly figures may be misleading.
†One of the 6 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 November 25, 1989 and November 26, 1988 (47th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989
UNITED STATES	31,703	8,997	794	75	622,147	629,962	31,627	20,356	2,101	2,074	987	154
NEW ENGLAND	1,306	503	23	2	18,649	19,619	662	997	67	77	63	9
Maine	66	30	5	-	240	358	21	52	6	1	6	-
N.H.	38	53	1	-	167	241	58	55	9	4	2	-
Vt.	13	41	4	-	62	106	36	72	7	-	3	-
Mass.	701	160	7	2	7,241	6,576	203	555	25	55	39	7
R.I.	78	109	-	-	1,340	1,852	50	72	5	10	13	1
Conn.	410	110	6	-	9,599	10,486	294	191	15	7	-	1
MID. ATLANTIC	9,225	1,263	37	6	87,138	100,043	3,760	3,162	192	217	250	21
Upstate N.Y.	1,284	522	30	5	15,548	13,948	885	634	72	13	84	4
N.Y. City	4,847	159	4	1	33,223	42,810	389	1,250	32	173	44	15
N.J.	2,056	-	3	-	13,530	14,267	417	537	28	5	41	1
Pa.	1,038	582	-	-	24,837	29,018	2,069	741	60	26	81	1
E.N. CENTRAL	2,458	1,787	290	9	117,007	107,066	1,883	2,384	245	93	276	4
Ohio	462	600	118	4	30,949	23,969	381	426	40	21	116	-
Ind.	323	244	42	3	8,752	8,119	203	371	29	37	58	1
Ill.	1,081	345	59	2	38,025	32,090	820	610	100	21	17	3
Mich.	466	485	47	-	30,385	33,722	263	600	47	14	43	-
Wis.	126	113	24	-	8,896	9,166	216	377	29	-	42	-
W.N. CENTRAL	769	446	35	4	29,978	26,856	1,348	921	109	29	36	1
Minn.	164	52	4	1	3,392	3,556	157	107	21	6	2	-
Iowa	53	76	15	-	2,464	2,034	166	44	15	5	6	-
Mo.	390	197	3	-	18,304	15,446	694	629	45	12	17	-
N. Dak.	6	12	1	-	125	176	4	23	4	2	1	-
S. Dak.	4	12	4	-	253	444	15	10	9	-	2	-
Nebr.	32	22	5	-	1,417	1,410	89	26	3	2	2	1
Kans.	120	75	3	3	4,023	3,790	223	82	12	2	6	-
S. ATLANTIC	6,546	1,776	157	24	169,402	177,038	3,276	3,918	311	358	128	2
Del.	74	75	1	-	2,968	2,785	77	132	5	8	11	-
Md.	639	219	18	2	19,738	18,371	967	655	26	30	28	-
D.C.	463	26	-	-	9,773	13,412	9	30	2	-	1	-
Va.	396	362	38	3	14,835	12,957	308	276	65	223	9	-
W. Va.	49	95	84	-	1,332	1,223	25	92	11	10	-	-
N.C.	491	207	8	2	25,540	25,173	416	951	83	-	34	1
S.C.	325	35	1	-	15,242	14,039	78	553	3	11	7	-
Ga.	971	128	3	1	33,243	33,411	351	377	13	8	24	-
Fla.	3,138	629	4	16	46,731	55,667	1,045	852	103	68	14	1
E.S. CENTRAL	714	646	48	2	51,491	49,839	385	1,482	148	12	63	-
Ky.	115	204	20	1	4,965	5,039	118	370	48	5	9	-
Tenn.	250	122	5	-	17,352	17,375	148	768	35	-	39	-
Ala.	207	226	20	-	16,696	14,989	80	230	57	3	13	-
Miss.	142	94	3	1	12,478	12,436	39	114	8	4	2	-
W.S. CENTRAL	2,680	882	75	7	65,351	67,449	3,525	2,023	138	478	47	25
Ark.	65	47	8	-	7,598	6,705	254	70	15	10	3	-
La.	458	74	18	1	13,781	13,449	249	342	15	2	9	-
Okla.	169	78	12	4	5,738	6,402	438	187	35	35	26	-
Tex.	1,988	683	37	2	38,234	40,893	2,584	1,424	73	431	9	25
MOUNTAIN	1,020	302	15	4	13,253	13,564	4,642	1,371	197	139	56	3
Mont.	17	6	-	-	172	376	88	44	7	3	3	1
Idaho	23	2	-	1	158	305	157	120	13	3	2	-
Wyo.	16	8	-	-	96	183	54	9	2	-	-	-
Colo.	359	146	3	1	2,886	3,073	481	161	54	57	5	-
N. Mex.	83	12	1	-	1,159	1,338	615	197	31	3	6	1
Ariz.	291	96	5	-	5,301	4,890	2,456	522	50	57	25	1
Utah	66	21	1	2	412	495	462	100	25	5	7	-
Nev.	165	11	5	-	3,069	2,904	329	218	15	11	8	-
PACIFIC	6,985	1,392	114	17	69,878	68,488	12,146	4,098	694	671	68	89
Wash.	488	-	6	1	5,850	6,477	2,831	887	184	59	24	7
Oreg.	219	-	-	-	2,853	2,952	2,147	481	75	15	2	1
Calif.	6,091	1,268	94	16	59,794	57,559	6,376	2,593	421	581	39	68
Alaska	16	34	11	-	905	960	629	59	6	5	1	-
Hawaii	171	90	3	-	476	540	163	78	8	11	2	13
Guam	1	5	1	-	118	139	6	-	-	7	-	1
P.R.	1,389	89	2	1	972	1,179	179	222	17	19	-	8
V.I.	27	-	-	-	568	404	-	8	-	-	-	-
Amer. Samoa	-	-	-	-	44	75	35	-	2	-	-	5
C.N.M.I.	-	-	-	-	72	49	2	10	-	2	-	1

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of the Northern Mariana Islands

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending November 25, 1989 and November 26, 1988 (47th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1989	1989	Cum. 1989	1989	Cum. 1989	Cum. 1988	Cum. 1989	1989	Cum. 1989	1989	Cum. 1989	Cum. 1988	1989	Cum. 1989	Cum. 1988
UNITED STATES	1,127	5	13,168	1	643	2,726	2,368	118	4,927	36	3,284	2,781	1	391	190
NEW ENGLAND	83	-	338	-	38	115	177	2	80	6	369	308	-	6	9
Maine	1	-	-	-	1	7	16	-	-	-	25	24	-	-	-
N.H.	2	-	8	-	7	88	17	-	15	-	16	47	-	4	5
Vt.	4	-	1	-	2	-	8	-	2	-	6	5	-	1	-
Mass.	45	-	82	-	21	4	98	2	54	6	293	192	-	1	3
R.I.	19	-	38	-	3	-	1	-	-	-	11	17	-	-	1
Conn.	12	-	209	-	4	16	37	-	9	-	18	23	-	-	-
MID. ATLANTIC	211	1	761	-	178	978	356	8	433	8	280	229	-	78	14
Upstate N.Y.	34	1	55	-	98	37	127	3	165	5	118	138	-	63	2
N.Y. City	84	-	105	-	16	52	43	-	19	-	12	8	-	15	7
N.J.	57	-	394	-	6	346	70	-	180	-	32	16	-	-	3
Pa.	36	-	207	-	58	543	116	5	69	3	118	67	-	-	2
E.N. CENTRAL	76	3	4,277	-	102	249	310	6	560	7	415	285	-	27	31
Ohio	11	-	1,516	-	35	85	115	-	146	-	68	49	-	3	1
Ind.	11	3	112	-	-	57	30	1	50	6	46	71	-	-	-
Ill.	32	-	2,067	-	1	72	79	-	173	-	126	55	-	21	26
Mich.	14	-	311	-	23	31	63	5	144	1	44	35	-	1	4
Wis.	8	-	271	-	43	4	23	-	47	-	131	75	-	2	-
W.N. CENTRAL	33	-	727	-	11	17	74	2	406	-	170	127	-	6	2
Minn.	9	-	17	-	-	11	16	-	2	-	46	48	-	-	-
Iowa	4	-	12	-	1	1	2	1	45	-	15	33	-	1	-
Mo.	12	-	458	-	-	5	21	1	66	-	92	23	-	4	-
N. Dak.	2	-	-	-	-	-	-	-	-	-	3	11	-	-	-
S. Dak.	1	-	-	-	-	-	8	-	-	-	3	5	-	-	-
Nebr.	2	-	108	-	2	-	18	-	5	-	7	-	-	-	-
Kans.	3	-	132	-	8	-	9	-	288	-	4	7	-	1	2
S. ATLANTIC	196	1	586	-	76	417	413	50	923	3	337	241	-	10	18
Del.	7	-	42	-	1	-	2	-	1	-	1	7	-	-	-
Md.	36	-	66	-	36	16	70	17	449	-	74	46	-	2	1
D.C.	10	1	37	-	5	-	15	3	132	-	3	1	-	-	-
Va.	40	-	20	-	3	220	48	1	127	1	34	23	-	-	11
W. Va.	2	-	53	-	-	6	13	1	15	1	33	8	-	-	-
N.C.	21	-	187	-	3	5	63	-	37	-	72	65	-	1	1
S.C.	10	-	15	-	-	-	30	-	37	-	-	1	-	-	-
Ga.	12	-	2	-	16	-	72	27	81	1	50	36	-	-	2
Fla.	58	-	164	-	12	170	100	1	44	-	70	54	-	7	3
E.S. CENTRAL	15	-	239	-	4	69	81	3	227	-	190	100	-	5	2
Ky.	1	-	40	-	4	35	42	-	9	-	1	12	-	-	-
Tenn.	5	-	148	-	-	-	10	3	78	-	109	29	-	4	2
Ala.	6	-	50	-	-	-	24	-	29	-	75	55	-	1	-
Miss.	3	-	1	-	-	34	5	N	N	-	5	4	-	-	-
W.S. CENTRAL	65	-	3,254	-	75	17	170	34	1,535	2	366	203	-	50	10
Ark.	-	-	3	-	19	1	13	5	181	1	30	25	-	-	3
La.	2	-	109	-	-	-	38	21	667	-	26	18	-	5	-
Okla.	8	-	126	-	-	8	24	-	197	1	60	62	-	1	1
Tex.	55	-	3,016	-	56	8	95	8	490	-	250	98	-	44	6
MOUNTAIN	26	-	363	1	54	153	67	11	237	10	653	789	1	37	6
Mont.	1	-	12	-	1	37	2	-	4	-	39	2	-	1	-
Idaho	2	-	-	-	7	1	2	5	26	1	74	337	-	32	-
Wyo.	1	-	-	-	-	-	1	-	8	-	-	2	-	2	-
Colo.	6	-	79	1†	19	115	21	1	55	4	98	31	1	1	2
N. Mex.	4	-	16	-	15	-	2	N	N	1	31	49	-	-	-
Ariz.	9	-	141	-	4	-	26	5	119	3	388	338	-	-	-
Utah	-	-	114	-	-	-	5	-	18	1	22	29	-	-	3
Nev.	3	-	1	-	8	-	8	-	7	-	1	1	-	1	1
PACIFIC	422	-	2,623	-	105	711	720	2	526	-	504	499	-	172	98
Wash.	32	-	31	-	18	7	77	2	45	-	184	114	-	-	-
Oreg.	20	-	12	-	48	8	52	N	N	-	13	48	-	3	-
Calif.	359	-	2,559	-	27	682	578	-	461	-	281	271	-	147	67
Alaska	3	-	1	-	-	2	11	-	2	-	1	8	-	-	-
Hawaii	8	-	20	-	12	12	2	-	18	-	25	58	-	22	31
Guam	3	U	-	U	-	1	-	U	6	U	1	-	U	-	1
P.R.	1	-	562	-	-	226	7	-	8	-	4	15	-	8	3
V.I.	-	-	4	-	-	-	-	1	18	-	-	-	-	-	-
Amer. Samoa	-	U	-	U	-	-	-	U	2	U	-	-	U	-	-
C.N.M.I.	1	U	-	U	-	-	-	U	6	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 November 25, 1989 and November 26, 1988 (47th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1988	Cum. 1989	Cum. 1989	Cum. 1989	Cum. 1989
UNITED STATES	37,768	34,648	338	19,104	19,114	135	447	594	4,165
NEW ENGLAND	1,534	1,079	20	590	501	2	40	7	9
Maine	13	12	5	25	20	-	-	-	2
N.H.	13	6	2	24	11	-	1	-	2
Vt.	1	3	-	8	4	-	-	-	-
Mass.	456	397	7	330	298	2	26	4	2
R.I.	29	30	2	61	39	-	6	1	-
Conn.	1,022	631	4	142	129	-	7	2	3
MID. ATLANTIC	7,688	6,964	59	3,985	3,919	2	126	64	710
Upstate N.Y.	862	539	12	315	500	1	36	13	55
N.Y. City	3,424	4,312	4	2,263	2,175	-	56	3	-
N.J.	1,275	903	12	790	631	-	26	28	21
Pa.	2,127	1,210	31	617	613	1	8	20	634
E.N. CENTRAL	1,696	1,074	56	1,976	2,123	3	47	55	118
Ohio	152	98	17	333	403	-	10	26	10
Ind.	54	49	8	186	220	1	4	19	2
Ill.	764	483	12	915	928	-	22	7	29
Mich.	585	390	19	425	476	1	6	3	28
Wis.	141	54	-	117	96	1	5	-	49
W.N. CENTRAL	290	220	40	497	472	52	7	76	535
Minn.	51	17	12	97	77	-	2	-	125
Iowa	32	23	6	46	50	-	2	4	110
Mo.	152	145	10	237	234	39	2	54	58
N. Dak.	2	2	-	14	15	-	-	1	55
S. Dak.	1	-	4	26	33	6	-	5	94
Nebr.	24	27	5	21	14	3	-	1	44
Kans.	28	6	3	56	49	4	1	11	49
S. ATLANTIC	12,795	12,870	25	4,045	4,064	6	44	214	1,248
Del.	196	94	2	38	40	-	2	1	29
Md.	766	651	1	347	386	2	9	17	348
D.C.	746	621	1	149	172	-	2	-	2
Va.	548	399	4	333	372	4	7	16	246
W. Va.	15	37	-	70	66	-	-	2	47
N.C.	1,028	748	6	549	466	-	2	111	7
S.C.	761	671	4	461	438	-	2	39	187
Ga.	2,208	2,306	3	658	656	-	6	24	219
Fla.	6,527	7,343	4	1,440	1,468	-	14	4	163
E.S. CENTRAL	2,784	1,828	9	1,504	1,569	7	3	64	334
Ky.	52	59	2	349	340	1	1	14	133
Tenn.	1,232	796	4	502	476	5	1	35	87
Ala.	841	524	2	416	467	-	1	6	110
Miss.	659	449	1	237	286	1	-	9	4
W.S. CENTRAL	5,678	4,000	24	2,294	2,403	41	16	86	572
Ark.	347	237	2	264	278	30	-	19	85
La.	1,431	785	-	292	306	-	1	1	12
Okla.	108	137	13	194	218	11	1	51	91
Tex.	3,792	2,841	9	1,544	1,601	-	14	15	384
MOUNTAIN	763	785	44	445	556	16	12	24	247
Mont.	1	3	-	16	30	1	-	14	71
Idaho	1	2	4	23	19	-	-	4	11
Wyo.	6	1	2	-	5	3	-	2	74
Colo.	61	103	9	26	97	3	2	3	22
N. Mex.	26	47	5	79	95	2	1	1	21
Ariz.	319	153	11	225	225	-	8	-	27
Utah	16	15	9	37	29	6	1	-	9
Nev.	333	461	4	39	56	1	-	-	12
PACIFIC	4,540	5,828	61	3,768	3,507	6	152	4	392
Wash.	386	222	4	207	204	-	9	-	-
Oreg.	211	278	-	129	135	4	6	1	-
Calif.	3,918	5,286	56	3,225	2,981	2	128	3	325
Alaska	10	14	-	44	41	-	-	-	67
Hawaii	15	28	1	163	146	-	9	-	-
Guam	4	3	-	68	30	-	3	-	-
P.R.	492	610	-	276	216	-	10	-	68
V.I.	8	2	-	4	6	-	1	-	-
Amer. Samoa	-	-	-	5	5	-	8	-	-
C.N.M.I.	8	1	-	21	25	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending November 25, 1989 (47th Week)

Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	554	370	111	45	12	15	53
Boston, Mass.	136	80	34	13	6	3	20
Bridgeport, Conn.	48	35	6	4	1	1	-
Cambridge, Mass.	28	23	5	-	-	-	6
Fall River, Mass.	22	18	3	1	-	-	-
Hartford, Conn.	71	47	9	12	2	1	7
Lowell, Mass.	18	13	5	-	-	-	1
Lynn, Mass.	14	9	5	-	-	-	3
New Bedford, Mass.	17	17	-	-	-	-	-
New Haven, Conn.	33	18	9	3	1	2	1
Providence, R.I.	27	20	7	-	-	-	1
Somerville, Mass.	7	5	2	-	-	-	-
Springfield, Mass.	49	33	5	6	1	4	4
Waterbury, Conn.	32	23	5	3	1	-	4
Worcester, Mass.	52	29	16	3	-	4	6
MID. ATLANTIC	2,500	1,648	491	249	56	56	117
Albany, N.Y.	48	35	11	-	-	2	5
Allentown, Pa.	20	13	6	1	-	-	-
Buffalo, N.Y.§	101	68	19	9	2	3	5
Camden, N.J.	31	21	5	4	-	1	-
Elizabeth, N.J.	8	5	2	1	-	-	1
Erie, Pa.†	33	28	3	-	1	1	1
Jersey City, N.J.	35	24	5	3	1	2	1
N.Y. City, N.Y.	1,368	889	270	160	28	21	46
Newark, N.J.	68	28	19	13	5	3	5
Paterson, N.J.	20	9	7	2	2	-	-
Philadelphia, Pa.§	372	234	78	36	10	14	19
Pittsburgh, Pa.†	75	48	17	5	2	3	7
Reading, Pa.	32	29	1	1	-	1	3
Rochester, N.Y.	90	67	17	4	2	-	9
Schenectady, N.Y.§	28	25	2	1	-	-	1
Scranton, Pa.†	18	16	2	-	-	-	4
Syracuse, N.Y.	86	64	11	6	2	3	4
Trenton, N.J.	20	13	6	-	-	1	1
Utica, N.Y.	14	9	2	2	1	-	2
Yonkers, N.Y.	33	23	8	1	-	1	3
E.N. CENTRAL	1,908	1,257	402	141	37	71	84
Akron, Ohio	34	24	6	1	1	2	-
Canton, Ohio	30	18	10	2	-	-	3
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio§	132	98	26	6	1	1	17
Cleveland, Ohio	144	75	39	21	4	5	2
Columbus, Ohio	149	97	33	11	4	4	-
Dayton, Ohio	82	53	20	4	1	4	4
Detroit, Mich.	158	95	30	19	7	7	4
Evansville, Ind.	40	29	8	2	-	1	-
Fort Wayne, Ind.	38	27	9	-	1	1	1
Gary, Ind.	19	12	3	3	-	1	1
Grand Rapids, Mich.	70	53	8	4	1	4	12
Indianapolis, Ind.	102	55	26	7	4	10	3
Madison, Wis.§	38	27	6	3	1	1	3
Milwaukee, Wis.	84	62	17	4	-	1	3
Peoria, Ill.	33	27	3	1	1	1	2
Rockford, Ill.	38	30	4	2	1	1	6
South Bend, Ind.	35	27	7	1	-	-	2
Toledo, Ohio	68	48	14	3	-	3	4
Youngstown, Ohio	50	38	8	2	-	2	1
W.N. CENTRAL	689	500	114	32	21	21	33
Des Moines, Iowa	31	20	7	1	1	2	3
Duluth, Minn.	30	19	8	3	-	-	4
Kansas City, Kans.	22	14	3	5	-	-	-
Kansas City, Mo.	117	85	18	4	7	3	9
Lincoln, Nebr.	18	17	1	-	-	-	2
Minneapolis, Minn.	204	156	32	8	5	3	11
Omaha, Nebr.	47	34	10	1	1	-	2
St. Louis, Mo.	155	104	24	9	7	11	-
St. Paul, Minn.	38	27	10	-	-	1	1
Wichita, Kans.	27	24	1	1	-	1	1
S. ATLANTIC	1,122	678	223	145	41	35	45
Atlanta, Ga.	154	98	22	25	5	4	4
Baltimore, Md.	225	136	46	32	9	2	11
Charlotte, N.C.	75	45	14	10	2	4	2
Jacksonville, Fla.	58	34	13	4	5	2	1
Miami, Fla.	94	50	20	16	3	5	-
Norfolk, Va.	53	28	12	8	3	2	2
Richmond, Va.	54	33	10	6	5	-	4
Savannah, Ga.	48	32	13	1	-	2	6
St. Petersburg, Fla.	65	44	10	8	-	3	4
Tampa, Fla.	68	42	13	5	3	5	7
Washington, D.C.§	193	111	43	28	6	5	4
Wilmington, Del.	35	25	7	2	-	1	-
E.S. CENTRAL	542	341	123	47	19	12	34
Birmingham, Ala.	83	49	20	7	3	4	1
Chattanooga, Tenn.	27	18	4	5	-	-	3
Knoxville, Tenn.	85	55	23	2	4	1	4
Louisville, Ky.	53	31	16	5	-	1	5
Memphis, Tenn.	136	87	22	19	4	4	8
Mobile, Ala.	63	46	12	1	3	1	-
Montgomery, Ala.	26	17	6	2	1	-	1
Nashville, Tenn.	69	38	20	6	4	1	12
W.S. CENTRAL	1,535	925	338	165	60	47	72
Austin, Tex.	49	39	2	6	1	1	3
Baton Rouge, La.	19	12	5	1	1	-	4
Corpus Christi, Tex.	24	16	5	2	-	1	2
Dallas, Tex.	196	98	54	22	8	14	7
El Paso, Tex.	47	25	6	8	5	3	1
Fort Worth, Tex	82	50	17	6	4	5	4
Houston, Tex.§	734	436	169	89	24	16	18
Little Rock, Ark.	51	27	17	1	4	2	2
New Orleans, La.	113	70	22	12	6	3	-
San Antonio, Tex.	122	80	25	10	6	1	19
Shreveport, La.	41	30	8	2	-	1	8
Tulsa, Okla.	57	42	8	6	1	-	4
MOUNTAIN	555	361	107	47	12	27	29
Albuquerque, N. Mex.	52	37	7	4	3	-	3
Colo. Springs, Colo.	26	16	4	3	2	1	4
Denver, Colo.	103	62	23	13	2	3	3
Las Vegas, Nev.	91	55	22	8	2	4	5
Ogden, Utah	16	11	2	-	-	3	2
Phoenix, Ariz.	114	66	25	10	-	13	4
Pueblo, Colo.	19	13	3	2	1	-	1
Salt Lake City, Utah	31	22	5	1	1	2	1
Tucson, Ariz.	103	79	16	6	1	1	6
PACIFIC	1,436	901	273	152	50	53	92
Berkeley, Calif.	12	9	2	-	1	-	2
Fresno, Calif.	70	40	14	9	6	1	8
Glendale, Calif.	13	8	4	1	-	-	-
Honolulu, Hawaii	61	40	13	4	-	4	6
Long Beach, Calif.§	83	56	15	8	1	3	13
Los Angeles Calif.	312	170	64	48	16	10	12
Oakland, Calif.	59	39	7	6	4	2	4
Pasadena, Calif.	13	9	1	3	-	-	2
Portland, Oreg.	128	82	29	9	4	4	4
Sacramento, Calif.	95	56	23	6	6	4	10
San Diego, Calif.	164	112	28	12	2	8	12
San Francisco, Calif.	125	71	25	24	1	4	1
San Jose, Calif.	137	87	28	9	5	8	7
Seattle, Wash.	96	67	15	10	4	-	6
Spokane, Wash.	43	33	4	2	-	4	5
Tacoma, Wash.	25	22	1	1	-	1	-
TOTAL	10,841††	6,981	2,182	1,023	308	337	559

*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 available 4 weeks.

International Notes

Update: Influenza Activity — Worldwide, 1988–89

During the 1988–89 influenza season (October 1, 1988, to September 30, 1989), all three influenza virus types (influenza type A[H1N1], A[H3N2], and B) were associated with influenza-like illnesses worldwide. This report summarizes reported worldwide influenza activity since April 1989.

Oceania. In the southern hemisphere, peak influenza activity typically occurs between June and September. In Australia and New Zealand, outbreaks intensified in August; although influenza B was the predominant virus, both influenza A(H1N1) and A(H3N2) were also isolated. The first isolates of B/Yamagata/16/88-like viruses outside Asia were reported from Australia. From July to October, Papua New Guinea reported major epidemic influenza activity involving both influenza A(H3N2) and influenza B.

Asia. Sporadic influenza activity occurred in Hong Kong during July and August; most isolates were influenza A(H3N2). Since April, Japan has reported 13 influenza A(H3N2) and 24 influenza B isolates. In Thailand, peak influenza activity occurred in July; influenza A(H3N2) (22 isolates) and influenza B (21 isolates) were equally distributed with few influenza A(H1N1) viruses (four isolates). Since April, only sporadic cases of influenza-like illnesses have occurred in southern China. CDC, in collaboration with the Institute of Virology, Chinese Academy of Preventive Medicine, has analyzed 102 isolates received from May to September; 64% were influenza A(H3N2), 20% were influenza A(H1N1), and 16% were influenza B.

South America. During July and August, outbreaks of influenza-like illnesses occurred in Chile, and a few influenza A(H1N1) viruses were isolated (*1*).

Europe, Canada, and the United States. Low levels of influenza activity were reported in the northern hemisphere during the summer months. One case of influenza A(H3N2) occurred in England, in Canada, and the in United States in September. The U.S. case-patient was a 20-year-old student from Wisconsin who was returning from West Africa when she became ill.

Active surveillance for influenza in the United States began on October 1. Although influenza-like illnesses have been reported since then, no cases were confirmed as influenza by viral isolation until November. From November 16 through November 20, the World Health Organization (WHO) collaborating laboratories confirmed influenza A(H3N2) in a 25-year-old Arizona woman, a 46-year-old Montana man, a 41-year-old Hawaii man, and a 42-year-old Washington man. Further characterization of these isolates is pending at CDC.

Characterization of influenza virus isolates. During the 1988–89 worldwide influenza season, >600 isolates were characterized by the WHO Collaborating Centre for Influenza; 46% were influenza B viruses, 30% were influenza A(H3N2), and 24% were influenza A(H1N1). The predominant A(H3N2) strains were A/Shanghai/11/87-like viruses, and the predominant A(H1N1) strains were A/Singapore/6/86- or A/Taiwan/1/86-like viruses. Influenza B isolates outside Asia have been predominantly B/Victoria/2/87-like; in Asia both B/Yamagata/16/88- and B/Victoria/2/87-like viruses have been characterized.

Reported by: SJ Englender, MD, State Epidemiologist, Arizona Dept of Health Svcs. K Welch, MD, Lahaina; EW Pon, MD, State Epidemiologist, Hawaii Dept of Health. JK Gedrose, MN, State Epidemiologist, Montana State Dept of Health and Environmental Sciences. JM Kobayashi, MD, State Epidemiologist, Washington Dept of Health and Social Svcs. JP Davis, MD, State

Influenza — Continued

Epidemiologist, Wisconsin Dept of Health and Social Svcs. Participating state and territorial health depts. WHO Collaborating Laboratories. Sentinel Physicians of the American Academy of Family Physicians. Influenza Br and Epidemiology Office, Div of Viral and Rickettsial Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Reports of confirmed influenza illnesses in the United States during November highlight the need for prompt vaccination of high-risk persons before widespread influenza activity occurs. The most important measure for reducing the impact of influenza is yearly vaccination of persons at high risk for influenza complications and health- and service-care providers to persons at high risk (*2*). Persons at high risk for complications include all persons ≥65 years of age; persons with chronic pulmonary or cardiovascular disorders (including children with asthma); residents of nursing homes and other chronic-care facilities; persons requiring medical follow-up in the past year for chronic metabolic disorders, renal dysfunction, hemoglobinopathies, or immunosuppression; and children and teenagers receiving long-term aspirin therapy. In addition, vaccination is recommended for persons (including health-care workers) attending to high-risk persons or living in a household with a person at high risk for influenza-related complications. Although the preferred time of vaccination is late autumn, vaccine can be given throughout the winter. Efforts should be made to vaccinate high-risk persons and care providers until influenza activity has peaked in the community. The hemagglutinin antigenic components of the 1989–90 influenza vaccine include A/Taiwan/1/86-like (H1N1), A/Shanghai/11/87-like (H3N2), and B/Yamagata/16/88-like viruses.

Amantadine can be a useful adjunct to vaccination when influenza A is present in a community (*3*). Viral throat or nasopharyngeal cultures from patients presenting with influenza-like illness should be done to monitor possible introduction of influenza into the community, determine the infecting strain, and guide in use of amantadine for prophylaxis. Health-care providers are urged to report influenza-like outbreaks to local and state health departments.

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Current Trends

Racial Differences in Rates of Hepatitis B Virus Infection — United States, 1976–1980

The prevalence of hepatitis B virus (HBV) infection in the United States and associated demographic and behavioral risk factors have been estimated from studies of the blood donor population and other selected populations (*1–4*). However, blood donors are not characteristic of the general U.S. population (*4*) and do not adequately estimate demographic risk factors associated with HBV infection. This report presents results from a seroprevalence study of HBV infection in a population that is representative of the general U.S. population (*5*) and describes racial differences in rates of HBV infection.

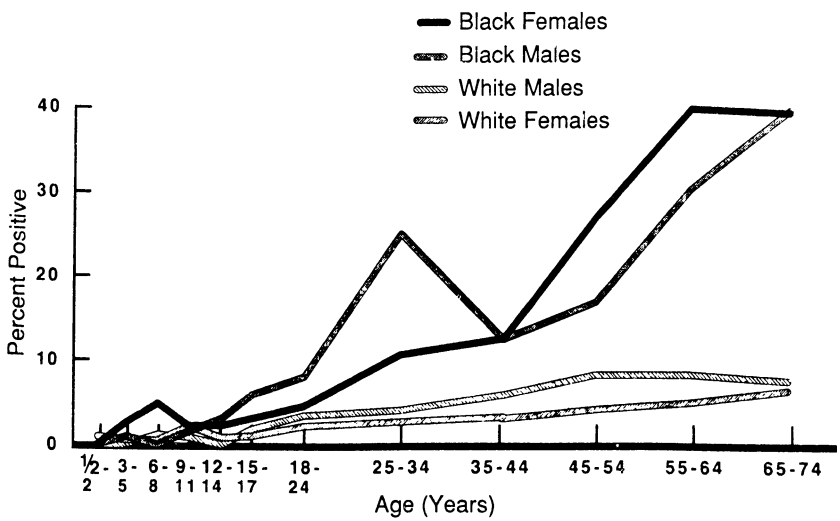
Hepatitis B — Continued

Serum collected in the Second National Health and Nutrition Examination Survey (NHANES II), conducted by CDC's National Center for Health Statistics during 1976–1980, was used to estimate the prevalence of HBV markers in the United States. NHANES II was a representative sample of the noninstitutionalized civilian U.S. population aged 6 months to 74 years. Demographic, socioeconomic, and morbidity data, as well as related medical and nutritional information, were collected by interview and physical examination (*6*). Serum was available from 14,488 (71.3%) of the 20,322 persons interviewed and examined. The distribution of age, sex, race, and region of the country was similar in adults tested and not tested for HBV markers. Of the 5843 children aged 6 months to 12 years, serum was available for testing for 2591 (44.3%). Serum was tested by enzyme immunoassay for hepatitis B surface antigen (HBsAg), antibody to hepatitis B core antigen (anti-HBc), and antibody to HBsAg (anti-HBs).

The prevalence of serologic markers for HBV infection (HBsAg, anti-HBs, or anti-HBc) in this population was 4.8%. Serologic markers were found in 3.2% of white participants and 13.7% of black participants. Among persons aged 65–74 years, 6.9% of whites and 39.6% of blacks were seropositive ($p<0.001$) (Figure 1). For children <12 years of age, rates of HBV infection for both races were low (black = 1.6%, white = 0.8%) (not statistically significant, $p = 0.147$). For all age groups from 12 to 74 years, rates of seropositivity were lower for whites than for blacks (statistically significant differences for all groups). Within each race, the distribution of HBV markers was similar for males and females—for whites, 3.7% of males and 3.0% of females; for blacks, 13.9% of both males and females.

Of the 13,811 white and black participants tested for HBsAg, 40 (0.3%) were positive (Table 1). The prevalence of HBV carriers (i.e., persons who test positive for HBsAg) per 1000 was 1.9 for whites and 8.5 for blacks (not statistically significant).

FIGURE 1. Age-specific prevalence of hepatitis B virus markers, by race, sex, and age — United States, 1976–1980



Hepatitis B — Continued

The race-adjusted prevalences of all HBV markers were lower in the Midwest than in other regions ($p<0.001$): 3.2% in the Midwest, compared with 5.2% in the Northeast, 5.5% in the South, and 5.9% in the West.

Reported by: TR Townsend, MD, Johns Hopkins Univ Hospital, Baltimore, Maryland. Div of Health Examination Statistics, National Center for Health Statistics; Hepatitis Br, Div of Viral and Rickettsial Diseases, Center for Infectious Diseases, CDC.

Editorial Note: A difference in the prevalence of HBV infection by race in the United States has been suggested previously (*7*); however, this difference has not been studied using a statistically valid population-based sample. The availability of serum from NHANES II provided an opportunity to examine the distribution of HBV markers in the general U.S. population. However, because only 313 persons were classified as other than black or white in NHANES II, and ethnicity data were unknown for this group, prevalence estimates can be determined only for the black and white population. Since this survey represents 1976–1980, when the incidence of HBV infection began to increase, the results provide a baseline estimate of the prevalence of HBV infection (*8*). The change in prevalence over time can be assessed by determining the seroprevalence of HBV markers in NHANES III.

Because an estimated 50% of clinical HBV infections are not reported by existing passive surveillance systems (*9*), population-based prevalence estimates of HBV seropositivity are useful in developing prevention strategies. Moreover, for each clinically apparent case of acute icteric hepatitis, two to three persons have disease so mild either they do not seek medical attention or HBV is not considered in the diagnosis.

Hepatitis B (HB) immunization programs have focused primarily on selected groups at high risk for infection, e.g., persons at occupational risk for exposure to blood and body fluids, staff and residents in institutions for the developmentally disabled, and staff and patients in hemodialysis units (*10*). Data from surveillance in four sentinel counties suggest that those who are at the greatest risk of infection—intravenous-drug users, persons acquiring disease through heterosexual exposure, and homosexual men—are not served by HB vaccine programs (*11*). In addition, approximately 30% of hepatitis patients have no known source of infection (*11*).

Analysis of the NHANES II data also showed that a positive serologic test for syphilis was associated with HBV infection in both races (*5*) and reinforced that HBV infection is also a sexually transmitted disease (*11,12*). The higher prevalence of HBV infection in the black population and the increasing prevalence of infection during adolescence suggest that immunization of the traditionally targeted risk groups will

TABLE 1. Distribution of persons with hepatitis B surface antigen, by age and race — United States, 1976–1980

Age (yrs)	White		Black	
	No. positive/ sample size	Prevalence per 1,000*	No. positive/ sample size	Prevalence per 1,000*
<11	0/2,042	0	1/360	1.8
12–24	6/2,750	2.2	2/428	6.0
25–44	4/2,711	1.5	7/367	14.8
45–75	17/4,632	2.8	3/521	7.7
Total	**27/12,135**	**1.9**	**13/1,676**	**8.5**

*Estimates have been weighted to reflect the age distribution of the U.S. population in 1980.

Hepatitis B — Continued

not markedly affect the spread of infection in the United States. The NHANES II data suggest that, to prevent a substantial proportion of HBV infections, HB immunization programs need to include adolescents and young adults.

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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: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333; telephone (404) 332-4555.

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