September 17, 1993 / Vol. 42 / No. 36

CENTERS FOR DISEASE CONTROL AND PREVENTION

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Epidemiologic Notes and Reports

Influenza A Outbreaks — Louisiana, August 1993

In August 1993, the Louisiana Department of Health and Hospitals (LDHH) investigated reports of acute respiratory illness among residents of two nursing homes and workers on a dredging barge in southern Louisiana; influenza type A has been confirmed as the cause of these outbreaks. This report summarizes the investigations of the outbreaks.

Outbreak 1

On August 18, 1993, LDHH initiated an investigation of an outbreak of acute respiratory illness in nursing home A in southeastern Louisiana. During August 12–August 30, 79 (64%) of 124 residents of this nursing home had acute respiratory illness (Figure 1), of whom 40 had a documented temperature ≥100 F [37.8 C] and cough. The 79 ill residents ranged in age from 34 to 99 years (median: 81 years). Onset of similar symptoms was reported by 20 of 100 staff members during the same period; the ages of ill staff members ranged from 22 to 55 years (median: 36 years). Twenty-five ill residents were hospitalized; two had radiographic signs of pneumonia.

Nasopharyngeal swabs obtained from nine residents and staff were cultured. Influenza type A was isolated from four of these cultures. Antigenic characterization of two of these indicated that the hemagglutinin was most closely related to the A/Beijing/32/92(H3N2) strain circulating at the end of the 1992–93 influenza season and included in the 1993–94 influenza vaccine.

LDHH advised nursing home A to minimize contacts between residents. Amantadine was not used because influenza type A was not considered a likely etiologic agent at the time of the outbreak.

Outbreak 2

On August 20, LDHH initiated an investigation of an outbreak of acute respiratory illness at nursing home B in southwestern Louisiana affecting 26 (46%) of 57 residents; 10 of 40 employees also reported illness. Ill residents ranged in age from 34 to 92 years (median: 84 years); ill employees ranged in age from 22 to 62 years (median: 37.5 years). Of the 26 ill residents, 25 (96%) had cough, 24 (92%) had fever, and 19 (73%) had headache. Two employees were hospitalized. Five of five paired acute-

Influenza A Outbreaks — Continued

and convalescent-phase serum specimens showed a fourfold or greater rise in antibody titer to influenza type A by complement fixation. LDHH advised restricting contact between residents.

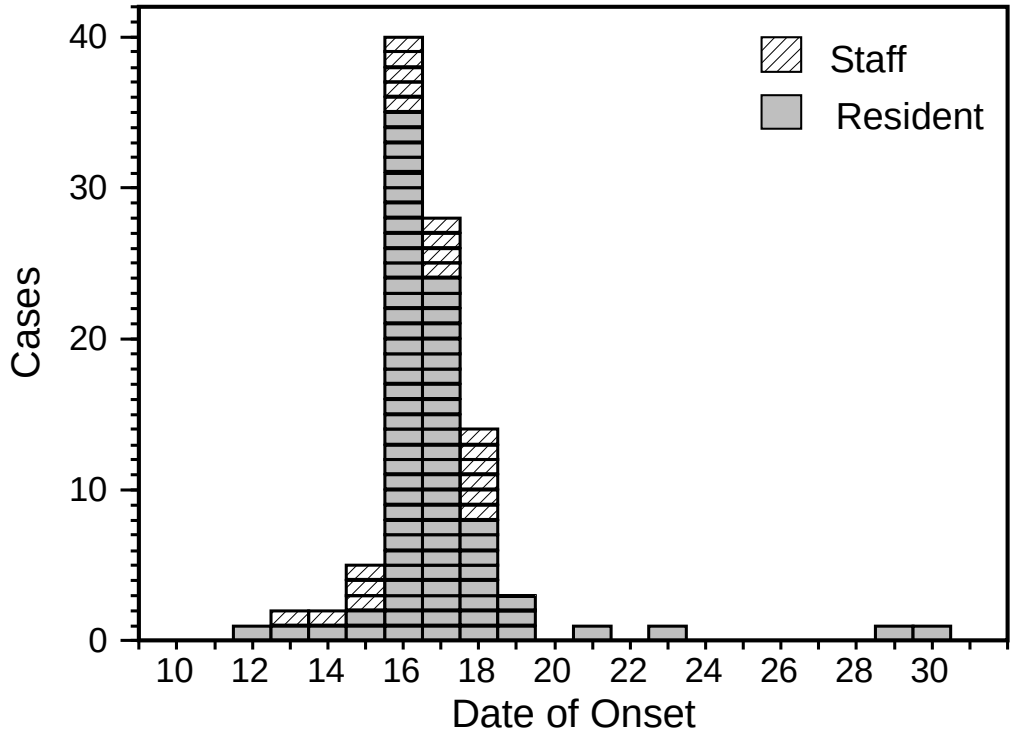
Outbreak 3

On September 2, LDHH received a report of acute respiratory illness among persons living and working on a dredging barge anchored in a southeastern Louisiana river. Of 51 persons who had worked on the barge for some period during August 25–September 3, 28 (55%) had onset of illness consisting of cough (89%), fever (82%), headache (82%), myalgias (82%), or sore throat (79%). Ill persons ranged in age from 19 to 63 years (median: 36 years). Four were hospitalized. Influenza type A was isolated from cultures obtained from five ill persons. Subtyping of this isolate and further investigation of this outbreak are under way. LDHH recommended that ill persons continuing to stay on the barge be housed separately from well persons. Amantadine was administered for treatment to all ill persons and for prophylaxis to well persons remaining on the barge. Since the start of amantadine, only one additional person has become ill on the barge.

Surveillance for Influenza-Like Illness in Other Sites

On September 1, active surveillance for influenza-like illness (ILI) was initiated throughout Louisiana. LDHH contacted 116 (34%) of the 343 nursing homes in the state; all 59 nursing homes in the regions where outbreaks 1–3 occurred and 57 of the remaining nursing homes in the state; a total of 12,026 persons reside in these facili-

FIGURE 1. Influenza outbreak among residents and staff members of nursing home A — Louisiana, August 10–31, 1993



Influenza A Outbreaks — Continued

ties. Twelve nursing homes reported cases of acute respiratory illness with cough, fever, or myalgias among residents during the preceding month. These reports included cases in 56 residents. The highest attack rate in any of these facilities was 7.5%; three residents required hospitalization.

As part of the active surveillance, LDHH also contacted nine hospital emergency departments and nine sentinel physicians around the state. Three hospital emergency departments reported a total of 23 patients with ILI during the month of August, one of whom was hospitalized. One physician located in the southeastern region of the state, but distant from these three outbreaks, reported five patients with ILI.

Reported by: C Bolotte, MD, H Louviere, T Foret, K Butler, Napoleonville; B Holden, MD, K Fruge, J Stewart, Crowley; W Johnson, MD, A Wiltz, C Granger, Morgan City; D Sundin, PhD, AP Causey, Charity Hospital, New Orleans; S Wilson, K Kelso, MS, R Tapia, MPH, Epidemiology Section, L McFarland, DrPh, State Epidemiologist, H Bradford, Jr, PhD, Bur of Laboratory Svcs, Office of Public Health, Louisiana Dept of Health and Hospitals. Influenza Br and Epidemiology Activity, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Div of Field Epidemiology, Epidemiology Program Office, CDC.

Editorial Note: Although sporadic cases of influenza may occur in the United States throughout the year, outbreaks of influenza during the summer are rare. This report describes three laboratory-confirmed influenza type A outbreaks that occurred in southern Louisiana during August and early September. Antigenic characterization of the hemagglutinin of two of the viruses isolated in these outbreaks indicates they are similar to the influenza A/Beijing/32/92(H3N2) strain that circulated in the United States late last season. This strain has been included in the 1993–94 influenza vaccine.

The unusual occurrence of outbreaks of confirmed and suspected influenza in August and early September has raised the question of whether influenza vaccine should be administered earlier this year than is usually recommended. To maximize opportunities for vaccinating high-risk patients, beginning in September such persons should be offered influenza vaccination during routine health care or when hospitalized. However, the recommendations of the Advisory Committee on Immunization Practices (ACIP) also state that the optimal time for organized vaccination programs for persons in high-risk groups is usually from mid-October through mid-November (*1*), so that the highest level of vaccine-induced antibody and protection are most likely to coincide with the highest levels of influenza activity in the United States—which usually occurs from December through March. Because vaccine-induced antibody titers can begin to wane within several months of vaccination, if vaccine is administered too early, some persons who do not mount a high antibody response may have antibody titers that have declined below protective levels before influenza activity ends.

The ACIP also recommends that vaccination programs can be initiated as soon as vaccine is available if regional influenza activity is expected to begin earlier than December (*1*). Because of the outbreaks described in this report, CDC has recommended that surveillance for influenza activity in other states begin as soon as possible to assist in determining whether vaccination should be encouraged earlier in other areas of the country. Early vaccination may be recommended nationally should laboratory-confirmed sporadic cases or outbreaks appear in several other areas of the country. In early September, CDC distributed influenza reagent kits to the 60 World Health Organization collaborating laboratories located throughout the United States to facilitate the identification of influenza viruses.

Influenza A Outbreaks — Continued

Another measure for control of influenza type A is the use of an antiviral agent. Two antiviral agents with specific activity against influenza type A—amantadine hydrochloride and rimantadine hydrochloride—have been used for control of influenza type A. Only amantadine is licensed for use in the United States; however, rimantadine may be approved in time for use during the 1993–94 influenza season. Amantadine is recommended for prophylaxis and treatment of influenza type A infection under a variety of circumstances (*2*). These recommendations are available by facsimile through the CDC Voice Information System, telephone (404) 332-4555. Updated antiviral recommendations that may include rimantadine will be published separately later in the fall of 1993.

References

1. ACIP. Prevention and control of influenza: part I, vaccines—recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1993;42(no. RR-6).
2. ACIP. Prevention and control of influenza: recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1992;41(no. RR-9).

Topics in Minority Health

Behavioral Risk Factor Surveillance System — Michigan, 1987–1991

A national health objective for the year 2000 is to implement periodic analysis and publication of each state's progress toward the objectives for each racial/ethnic group that constitutes at least 10% of the state's population (objective 22.5a) (*1*). In Michigan (1990 population: 9.3 million), blacks represent approximately 12% of the adult population*; prevalence estimates for risk factors for the black population derived from the Behavioral Risk Factor Surveillance System (BRFSS) have varied in consistency because of the limitations of small sample sizes. To improve the precision of risk factor prevalence estimates for blacks in Michigan and to improve measurement of the state's progress toward the national year 2000 objectives for blacks, in 1993, the Michigan Department of Public Health (MDPH) aggregated annual state BRFSS data for 1989–1991. This report summarizes the findings of this analysis and compares them with an analysis of annual state BRFSS data for 1987–1991.

In the Michigan BRFSS, adults aged ≥18 years participated in monthly random-digit–dialed telephone interviews. Respondents were asked about behavioral risk factors including smoking, overweight, alcohol use, sedentary lifestyle, high blood pressure, elevated serum cholesterol, and safety-belt nonuse. Annual sample sizes of blacks ranged from approximately 130 to 290 compared with 1175–2150 for whites. The Software for Survey Data Analysis (SUDAAN) was used to calculate prevalence estimates and 95% confidence intervals (*2*). For the aggregated analysis, BRFSS data for 1989–1991 were combined. The aggregated data were reweighted by the inverse of the relative probability of selection and a poststratification weighting factor using 1990 population figures. This procedure resulted in working sample sizes of 841 blacks and 6134 whites.

*In Michigan, blacks and whites are the only racial/ethnic groups that each constitute at least 10% of the population.

Michigan BRFSS — Continued

During 1987–1991, the annual estimated prevalence rates for two selected risk factors—smoking and overweight—varied substantially by year among blacks, ranging from 19.9% to 34.8% and from 24.4% to 39.3%, respectively; there were no consistent increases or decreases in prevalences for either risk factor (Table 1). In comparison, analysis of the aggregated data for 1989–1991 indicated that among blacks the prevalence of smoking was 31.7% and for overweight, 35.2% (Table 2); for both estimates, the confidence intervals were substantially narrower than those for annual estimates. Significant race-specific differences were observed for overweight and seven other risk factors examined (Table 2). Prevalence estimates for the three alcohol-related risk factors (i.e., heavy drinking, binge drinking, and drinking and driving) were significantly higher among whites than among blacks ($p<0.05$, z-test). Prevalence estimates for safety-belt nonuse, sedentary lifestyle, high blood pressure, and never having had serum cholesterol level measured were significantly higher among blacks than among whites ($p<0.05$, z-test). Race-specific differences in prevalence estimates were consistent for both men and women for safety-belt nonuse and for binge drinking.

Reported by: AP Rafferty, PhD, HB McGee, MPH, RM Davis, MD, G Van Amburg, MPH, KR Wilcox, MD, State Epidemiologist, Michigan Dept of Public Health. Behavioral Risk Factor Surveillance Br, Office of Surveillance and Analysis, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: The reduction of excess deaths in at-risk minority populations is one of the four primary goals of MDPH. Because of substantial excess mortality from cardiovascular diseases among blacks in Michigan (*3*), BRFSS data are used to monitor trends in the prevalence of risk factors for this problem (*4–8*).

The findings in this report indicate that, because of small sample sizes and consequent wide confidence intervals, annual BRFSS prevalence estimates for some population subgroups can obscure trends and statistically significant associations, as well as complicate comparison of such data with that for other subgroups. In contrast, aggregated data may provide more precise estimates and reveal significant associations that can assist in improving the measurement of progress toward national and state health objectives. For example, the aggregated analysis in this report indicates that, because of the higher prevalences of risk factors for cardiovascular diseases (i.e., increased for high blood pressure, overweight, and sedentary lifestyle but lower for having had serum cholesterol level measured) among blacks than among whites,

TABLE 1. Annual estimated prevalences of smoking* and overweight† among blacks — Michigan, Behavioral Risk Factor Surveillance System, 1987–1991§

	Smoking		Overweight	
Year	%	(95% CI¶)	%	(95% CI)
1987	34.8	(±7.0)	24.4	(±6.3)
1988	19.9	(±6.8)	32.5	(±8.0)
1989	34.5	(±6.7)	39.3	(±6.8)
1990	29.4	(±6.1)	29.5	(±5.7)
1991	31.5	(±6.1)	36.5	(±6.9)

*Defined as current cigarette smoking by a person who has ever smoked 100 cigarettes.
†Defined as body mass index ≥85%.
§Annual sample sizes ranged from 130 to 290 persons aged ≥18 years.
¶Confidence interval.

TABLE 2. Aggregated analysis* of estimated prevalences of selected behavioral risk factors, by sex and race† — Michigan, Behavioral Risk Factor Surveillance System, 1989–1991§

	Men				Women				Total			
	Blacks		Whites		Blacks		Whites		Blacks		Whites	
Risk factor	%	(95% CI¶)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Safety-belt nonuse**	32.6	(±5.9)	25.4	(±1.8)††	28.8	(±4.3)	12.4	(±1.2)††	**30.5**	**(±3.5)**	**18.6**	**(±1.1)††**
Heavy drinking§§	4.2	(±2.5)	9.5	(±1.3)††	1.4	(±1.0)	1.3	(±0.4)	**2.7**	**(±1.3)**	**5.2**	**(±0.7)††**
Binge drinking¶¶	17.0	(±4.6)	29.5	(±2.0)††	6.0	(±2.3)	10.1	(±1.1)††	**10.9**	**(±2.4)**	**19.4**	**(±1.2)††**
Drinking and driving***	3.5	(±2.2)	6.6	(±1.1)††	1.8	(±1.3)	2.0	(±0.6)	**2.6**	**(±1.2)**	**4.2**	**(±0.6)††**
Sedentary lifestyle†††	56.3	(±6.3)	54.6	(±2.1)	66.6	(±4.7)	56.8	(±1.8)††	**62.0**	**(±3.8)**	**55.7**	**(±1.4)††**
Overweight§§§	26.7	(±5.6)	27.5	(±1.9)	42.7	(±5.1)	25.3	(±1.6)††	**35.2**	**(±3.8)**	**26.4**	**(±1.3)††**
Smoking¶¶¶	33.7	(±6.1)	30.2	(±1.9)	30.0	(±4.4)	25.8	(±1.6)	**31.7**	**(±3.6)**	**27.9**	**(±1.2)**
High blood pressure****	26.3	(±5.4)	22.1	(±1.8)	30.0	(±4.3)	24.0	(±1.5)††	**28.3**	**(±3.3)**	**23.1**	**(±1.2)††**
Serum cholesterol level never measured	38.6	(±6.3)	36.6	(±2.1)	37.5	(±4.7)	30.2	(±1.7)††	**38.0**	**(±3.8)**	**33.3**	**(±1.3)††**

* Annual Behavioral Risk Factor Surveillance System data for 1989–1991 were combined; the aggregated data were reweighted by the inverse of the relative probability of selection and a poststratification weighting factor using 1990 population figures.
† Data are presented for blacks and whites only because, in Michigan, these are the only racial/ethnic groups that each constitute at least 10% of the population.
§ Annual sample sizes ranged from 1332 to 2412 persons aged ≥18 years.
¶ Confidence interval.
** Defined as sometimes, seldom, or never wearing safety belts.
†† Comparison of prevalence for blacks and whites was statistically significant; $p<0.05$, z-test.
§§ Defined as consuming 60 or more alcoholic beverages per month.
¶¶ Defined as at least one episode of consuming five or more alcoholic beverages per occasion during the 30 days preceding the interview.
*** Defined as at least one episode of driving after perhaps consuming too much alcohol during the 30 days preceding the interview.
††† Fewer than three 20-minute sessions of leisure-time physical activity per week.
§§§ Body mass index ≥85%.
¶¶¶ Defined as current cigarette smoking by a person who has ever smoked 100 cigarettes.
**** Defined as ever having been told by a health professional that they have high blood pressure.

Michigan BRFSS — Continued

blacks in Michigan should be targeted for health-education programs about cardiovascular disease.

The analysis by MDPH also compared race-specific prevalences of risk factors among blacks and whites. However, race is most likely a risk marker, rather than a risk factor, for high-risk behaviors. Risk markers may be useful for identifying groups at greatest risk for specific high-risk behaviors and for targeting prevention and education efforts. Moreover, race-specific variation in high-risk behavior rates may reflect differences in factors such as socioeconomic status and access to medical care.

The findings in this report are subject to at least two limitations. First, in these analyses, prevalence estimates were not adjusted for differences in socioeconomic status. In Michigan, behavioral risk factor data consistently indicate higher prevalence estimates among persons with less education and lower incomes, which may account for these race-specific differences. Second, in these analyses, cultural factors (e.g., cross-racial survey interviewers and use of jargon) that may account, in part, for observed race-specific differences were not addressed.

The findings of the MDPH study underscore the importance of using different methods of analysis to adjust for the marked annual variations (caused by small sample sizes) in risk factor prevalence estimates for population subgroups. As a result of these findings, MDPH is planning to supplement their annual compilations of BRFSS data with aggregated compilations. The findings in this report suggest that state health departments should periodically compare annual and aggregated BRFSS data to increase the precision of risk factor prevalence estimates for population subgroups and to improve measurement of progress toward national and state health objectives.

References

1. Public Health Service. Healthy people 2000: national health promotion and disease prevention objectives—full report, with commentary. Washington, DC: US Department of Health and Human Services, Public Health Service, 1991; DHHS publication no. (PHS)91-50212.
2. Shah BV. Software for Survey Data Analysis (SUDAAN) version 5.5 [Software documentation]. Research Triangle Park, North Carolina: Research Triangle Institute, 1991.
3. Michigan Department of Public Health. Michigan health statistics. Lansing, Michigan: Michigan Department of Public Health, Center for Health Statistics, Office of the State Registrar, 1989.
4. Mayer J, Thrush J, Chan V, Mills EM. Health risk behaviors, 1987. Lansing, Michigan: Mchigan Department of Public Health, 1988.
5. Brown SM, Chan V, Mills EM, Ross L, Theisen V. Health risk behaviors, 1988. Lansing, Michigan: Michigan Department of Public Health, 1990.
6. Rafferty AP, ed. Health risk behaviors, 1989. Lansing, Michigan: Michigan Department of Public Health, 1991.
7. Rafferty AP, ed. Health risk behaviors, 1990. Lansing, Michigan: Michigan Department of Public Health, 1992.
8. Rafferty AP, ed. Health risk behaviors, 1991. Lansing, Michigan: Michigan Department of Public Health, 1993.

Emerging Infectious Diseases

Tuberculosis Morbidity — United States, 1992

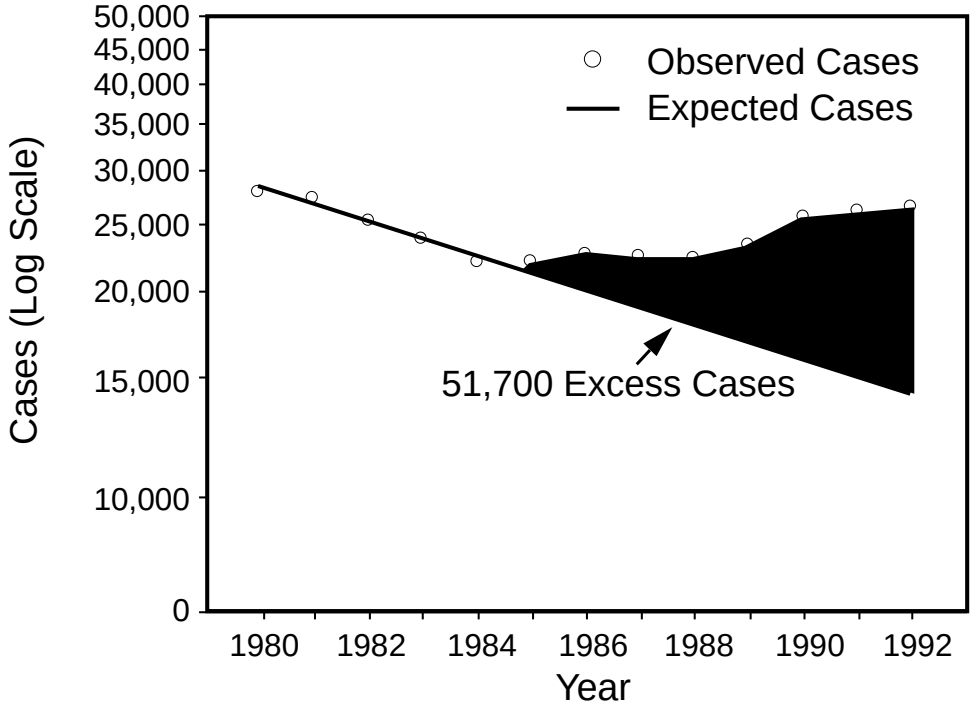
In 1992, 26,673 cases of tuberculosis (TB) (10.5 cases per 100,000 population) were reported to CDC from the 50 states, the District of Columbia, and New York City*, a 1.5% increase over the number reported in 1991 (26,283 [10.4 cases per 100,000]). In addition, 370 cases were reported from Puerto Rico (312) and the U.S. territories (58). This report summarizes final TB surveillance data for 1992 and compares findings with previous years.

During 1992, 22 states reported increases over 1991 in the number of TB cases. The largest increases occurred in Virginia (20.6%), Illinois (6.5%), New York (including New York City) (3.3%), and California (2.1%). The largest increases reported in cities with populations of 250,000 or more were in Houston (25.7%), San Diego (19.3%), Chicago (5.9%), and New York City (3.5%).

From 1985 (the year with the lowest number of reported TB cases since reporting began) through 1992, reported TB cases increased 20.1%, from 22,201 to 26,673, respectively. During this period, the largest increases occurred in New York (84.4%), California (54.2%), and Texas (32.7%). If the trend of decline observed from 1980 through 1984 had continued through 1992, approximately 51,700 fewer cases would have been expected during 1985–1992 than were reported (Figure 1).

*New York City is a separate reporting area.

FIGURE 1. Expected and observed number of tuberculosis cases — United States, 1980–1992



Tuberculosis Morbidity — Continued

From 1985 through 1992, reported TB cases increased in every racial/ethnic group except non-Hispanic whites and American Indians/Alaskan Natives (Table 1). Reported cases increased among Hispanics by 74.5%, among Asians/Pacific Islanders by 46.2%, and among non-Hispanic blacks by 26.8%. Cases decreased by 23.2% among American Indians/Alaskan Natives and by 9.9% among non-Hispanic whites.

Compared with 1985, the number of reported TB cases increased for all age groups except for the ≥65-year age group (Table 1). The largest increase occurred in the 25–44-year age group (54.5%). A higher proportion of cases occurred among persons in younger age groups.

From 1985 through 1992, the TB case rate in nonurban areas of the United States decreased from 6.7 cases per 100,000 to 6.5 (3.0%). In comparison, the rate in urban areas increased from 17.1 cases per 100,000 to 22.0 (28.6%).

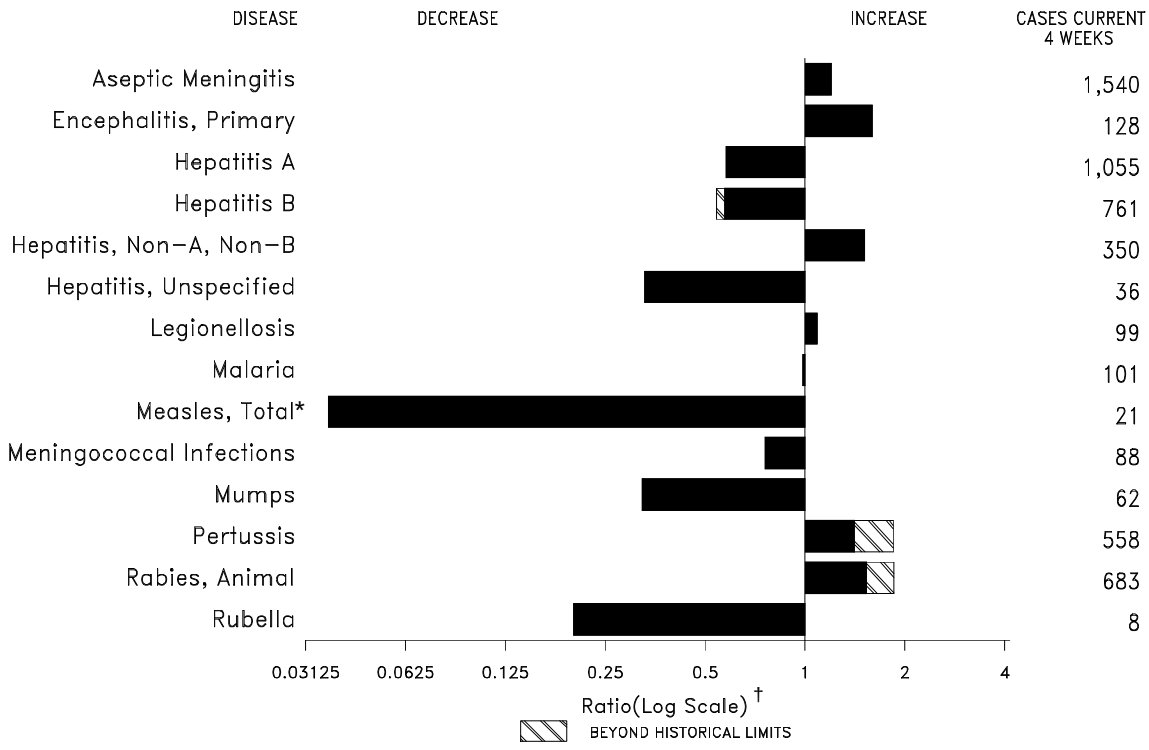
(Continued on page 703)

TABLE 1. Reported cases and rates of tuberculosis, by sex, age group, race/ethnicity, and country of origin — United States, 1985 and 1992

Characteristic	No. cases 1985	No. cases 1992	% Change	Rate* 1985	Rate* 1992	% Change
Sex						
Male	14,496	17,433	+20.3	12.5	14.0	+12.0
Female	7,704	9,236	+19.9	6.3	7.1	+12.7
Unknown	1	4	—†	NA§	NA	
Age group (yrs)						
0– 4	789	1,074	+36.1	4.4	5.5	+25.0
5–14	472	633	+34.1	1.4	1.7	+21.4
15–24	1,672	1,974	+18.1	4.2	5.5	+31.0
25–44	6,758	10,444	+54.5	9.2	12.7	+38.0
45–64	6,138	6,487	+ 5.7	13.7	13.4	– 2.1
≥65	6,356	6,025	– 5.2	22.3	18.7	–16.1
Unknown	16	36	—	NA	NA	
Race/Ethnicity						
White, non-Hispanic	8,453	7,618	– 9.9	4.5	4.0	–11.1
Black, non-Hispanic	7,592	9,623	+26.8	23.0	31.7	+37.8
Hispanic¶	3,092	5,397	+74.5	21.4	22.4	+ 4.7
Asian/Pacific Islander	2,530	3,698	+46.2	41.6	46.6	+12.0
American Indian/ Alaskan Native	397	305	–23.2	18.9	16.3	–13.8
Unknown/Other**	137	32	—	NA	NA	
Country of origin††						
Foreign-born§§	4,925	7,270	+47.6	NA	NA	
U.S.-born	17,712	19,225	+ 8.5	NA	NA	
Unknown	131	178	—	NA	NA	
Total	**22,201**	**26,673**	**+20.1**	**9.3**	**10.5**	**+12.9**

*Per 100,000 population. Population by race/ethnicity are projections obtained from the Bureau of Census (Source: Bureau of Census, Current population reports; series P-25, no. 1092, November 1992).
†Not calculated.
§Denominator data not available.
¶Persons of Hispanic origin may be of any race.
**Includes blacks and whites of unknown ethnicity.
††Cases reported for 1986, the first year with uniform national reporting of country of origin for persons with tuberculosis.
§§Persons born outside the United States and its territories.

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending September 11, 1993, with historical data — United States



*The large apparent decrease in reported cases of measles(total) reflects dramatic fluctuations in the historical baseline.

† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where thehatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending September 11, 1993 (36th Week)

	Cum. 1993		Cum. 1993
AIDS*	75,768	Measles: imported	42
Anthrax	-	indigenous	204
Botulism: Foodborne	8	Plague	7
Infant	30	Poliomyelitis, Paralytic§	-
Other	2	Psittacosis	39
Brucellosis	64	Rabies, human	1
Cholera	16	Syphilis, primary & secondary	17,675
Congenital rubella syndrome	7	Syphilis, congenital, age < 1 year¶	677
Diphtheria	-	Tetanus	28
Encephalitis, post-infectious	115	Toxic shock syndrome	170
Gonorrhea	263,124	Trichinosis	9
Haemophilus influenzae (invasive disease)†	839	Tuberculosis	14,103
Hansen Disease	117	Tularemia	94
Leptospirosis	28	Typhoid fever	221
Lyme Disease	4,497	Typhus fever, tickborne (RMSF)	310

*Updated monthly; last update September 11, 1993.
†Of 779 cases of known age, 252 (32%) were reported among children less than 5 years of age.
§Two (2) cases of suspected poliomyelitis have been reported in 1993; 4 of the 5 suspected cases with onset in 1992 were confirmed; the confirmed cases were vaccine associated.
¶Reports through first quarter of 1993.

TABLE II. Cases of selected notifiable diseases, United States, weeks ending September 11, 1993, and September 5, 1992 (36th Week)

Reporting Area	AIDS*	Aseptic Meningitis	Encephalitis		Gonorrhea		Hepatitis (Viral), by type				Legionellosis	Lyme Disease
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1992	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1993
UNITED STATES	75,768	7,431	534	115	263,124	340,323	14,432	8,342	3,287	424	814	4,497
NEW ENGLAND	3,666	202	13	5	5,637	7,163	323	368	363	10	39	1,247
Maine	113	23	2	-	61	65	12	9	4	-	4	6
N.H.	83	26	-	2	47	81	17	59	287	3	1	45
Vt.	48	25	4	-	18	18	3	7	2	-	-	5
Mass.	2,053	89	5	3	2,033	2,596	162	233	63	7	30	124
R.I.	248	39	2	-	283	500	61	16	7	-	4	183
Conn.	1,121	-	-	-	3,195	3,903	68	44	-	-	-	884
MID. ATLANTIC	17,807	511	40	8	31,548	37,477	737	948	249	4	162	2,321
Upstate N.Y.	2,783	267	28	5	6,009	7,538	249	289	160	1	54	1,277
N.Y. City	9,670	104	1	-	7,880	13,071	177	121	1	-	3	3
N.J.	3,272	-	-	-	5,091	5,281	207	269	58	-	24	514
Pa.	2,082	140	11	3	12,568	11,587	104	269	30	3	81	527
E.N. CENTRAL	6,022	1,147	125	21	50,139	63,864	1,590	1,000	446	10	210	44
Ohio	1,147	421	47	4	15,462	18,603	208	144	32	-	111	25
Ind.	685	131	14	8	5,371	5,993	475	149	8	1	38	8
Ill.	2,132	221	23	2	13,208	21,636	443	175	41	3	10	5
Mich.	1,468	343	31	7	12,152	14,632	142	296	331	6	43	6
Wis.	590	31	10	-	3,946	3,000	322	236	34	-	8	-
W.N. CENTRAL	2,563	449	19	-	13,461	17,976	1,648	435	104	11	58	105
Minn.	531	61	7	-	1,678	1,962	304	48	3	4	1	52
Iowa	149	77	1	-	658	1,156	36	17	7	1	8	7
Mo.	1,456	132	-	-	7,883	10,023	1,027	311	73	6	14	7
N. Dak.	1	12	3	-	38	58	63	-	-	-	1	2
S. Dak.	22	16	5	-	186	119	13	-	-	-	-	-
Nebr.	142	8	1	-	476	1,143	141	12	8	-	27	4
Kans.	262	143	2	-	2,542	3,515	64	47	13	-	7	33
S. ATLANTIC	15,987	1,690	136	51	70,318	102,415	874	1,605	462	58	150	619
Del.	279	49	3	-	975	1,227	9	122	89	-	10	306
Md.	1,884	172	21	-	11,277	10,723	122	194	14	5	35	114
D.C.	1,006	27	-	-	3,219	4,383	6	34	-	-	13	2
Va.	1,227	179	29	6	8,396	11,281	104	107	26	27	5	56
W. Va.	55	21	63	-	443	608	16	29	21	-	3	11
N.C.	918	169	17	-	17,192	17,049	53	219	54	-	20	64
S.C.	959	23	-	-	7,543	7,692	11	37	3	1	17	7
Ga.	2,173	110	1	-	4,660	30,516	67	146	73	-	27	30
Fla.	7,486	940	2	45	16,613	18,936	486	717	182	25	20	29
E.S. CENTRAL	1,999	477	23	7	30,817	33,721	195	884	635	1	34	16
Ky.	248	194	8	6	3,286	3,342	83	59	10	-	12	4
Tenn.	811	103	7	-	9,148	10,644	46	744	611	-	14	9
Ala.	584	123	1	-	11,340	11,643	42	76	4	1	2	3
Miss.	356	57	7	1	7,043	8,092	24	5	10	-	6	-
W.S. CENTRAL	7,634	849	37	2	31,249	37,524	1,399	1,121	211	129	22	40
Ark.	293	47	1	-	5,923	5,390	36	38	2	2	3	1
La.	981	63	5	-	8,305	10,582	58	151	92	3	2	1
Okla.	621	1	7	-	2,357	3,745	110	207	73	9	11	17
Tex.	5,739	738	24	2	14,664	17,807	1,195	725	44	115	6	21
MOUNTAIN	3,157	452	21	4	7,735	8,536	2,818	408	228	58	55	19
Mont.	23	-	-	1	53	81	58	4	2	-	5	-
Idaho	56	7	-	-	119	75	140	34	-	1	1	2
Wyo.	32	5	-	-	63	40	12	21	71	-	5	8
Colo.	1,061	128	10	-	2,469	3,042	666	51	37	33	6	-
N. Mex.	249	100	3	2	647	639	267	150	72	2	4	2
Ariz.	1,043	140	6	-	2,878	2,972	1,032	68	12	10	12	-
Utah	217	27	1	-	240	221	564	39	24	11	7	3
Nev.	476	45	1	1	1,266	1,466	79	41	10	1	15	4
PACIFIC	16,933	1,654	120	17	22,220	31,647	4,848	1,573	589	143	84	86
Wash.	1,153	-	1	-	2,643	2,722	537	155	138	8	9	3
Oreg.	620	-	-	-	1,125	1,182	67	24	11	-	-	2
Calif.	14,872	1,546	115	17	17,723	26,878	3,644	1,368	428	132	68	80
Alaska	49	16	3	-	356	482	543	8	9	-	-	-
Hawaii	239	92	1	-	373	383	57	18	3	3	7	1
Guam	-	2	-	-	38	49	2	2	-	1	-	-
P.R.	2,106	38	-	-	360	163	67	268	56	2	-	-
V.I.	35	-	-	-	79	71	-	4	-	-	-	-
Amer. Samoa	-	-	-	-	35	31	15	-	-	-	-	-
C.N.M.I.	-	3	-	-	58	61	-	1	-	1	-	-

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

*Updated monthly; last update September 11, 1993.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending September 11, 1993, and September 5, 1992 (36th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1993	1993	Cum. 1993	1993	Cum. 1993	Cum. 1992	Cum. 1993	1993	Cum. 1993	1993	Cum. 1993	Cum. 1992	1993	Cum. 1993	Cum. 1992
UNITED STATES	776	5	204	-	42	2,122	1,693	14	1,154	114	3,055	1,713	1	154	133
NEW ENGLAND	55	-	56	-	5	55	94	-	8	8	540	147	-	1	6
Maine	2	-	2	-	-	3	5	-	-	6	19	7	-	1	1
N.H.	6	-	1	-	-	13	12	-	-	-	215	31	-	-	-
Vt.	1	-	30	-	1	-	4	-	-	1	58	7	-	-	-
Mass.	27	-	14	-	3	14	53	-	2	-	199	70	-	-	-
R.I.	2	-	-	-	1	21	1	-	2	-	6	-	-	-	4
Conn.	17	-	9	-	-	4	19	-	4	1	43	32	-	-	1
MID. ATLANTIC	117	-	10	-	6	202	200	-	90	6	338	78	-	49	10
Upstate N.Y.	44	-	-	-	2	111	91	-	33	6	158	41	-	9	7
N.Y. City	24	-	5	-	2	54	19	-	2	-	7	9	-	22	-
N.J.	31	-	5	-	2	37	31	-	8	-	35	28	-	13	3
Pa.	18	-	-	-	-	-	59	-	47	-	138	-	-	5	-
E.N. CENTRAL	48	1	15	-	6	51	262	2	164	19	542	262	-	5	9
Ohio	10	-	5	-	3	6	76	-	63	10	221	47	-	1	-
Ind.	3	-	-	-	-	20	44	-	3	-	53	21	-	1	-
Ill.	25	-	5	-	-	17	72	-	39	-	82	32	-	-	8
Mich.	10	1	5	-	1	4	42	2	56	9	42	8	-	2	1
Wis.	-	-	-	-	2	4	28	-	3	-	144	154	-	1	-
W.N. CENTRAL	21	-	1	-	2	11	110	1	35	18	287	147	-	1	8
Minn.	4	-	-	-	-	10	7	-	2	15	147	33	-	-	-
Iowa	3	-	-	-	-	1	18	-	7	-	20	3	-	-	3
Mo.	6	-	1	-	-	-	43	-	19	1	85	68	-	1	1
N. Dak.	2	-	-	-	-	-	3	-	5	-	3	13	-	-	-
S. Dak.	2	-	-	-	-	-	3	-	-	1	8	7	-	-	-
Nebr.	3	-	-	-	-	-	9	-	1	-	9	7	-	-	-
Kans.	1	-	-	-	2	-	27	1	1	1	15	16	-	-	4
S. ATLANTIC	217	-	23	-	5	120	325	3	363	17	320	117	-	9	13
Del.	2	-	1	-	-	1	11	-	5	3	12	6	-	2	-
Md.	30	-	-	-	4	16	42	-	65	-	100	20	-	2	5
D.C.	10	-	-	-	-	-	5	-	-	-	6	1	-	-	-
Va.	20	-	-	-	1	14	31	1	21	2	42	10	-	-	-
W. Va.	2	-	-	-	-	-	12	-	14	-	10	7	-	-	1
N.C.	91	-	-	-	-	24	56	-	195	7	52	22	-	-	-
S.C.	1	-	-	-	-	29	30	1	15	2	10	9	-	-	2
Ga.	13	-	-	-	-	-	72	-	14	-	17	14	-	-	-
Fla.	48	-	22	-	-	36	66	1	34	3	71	28	-	5	5
E.S. CENTRAL	23	-	1	-	-	460	105	1	40	7	231	24	-	-	1
Ky.	4	-	-	-	-	443	19	-	-	-	20	1	-	-	-
Tenn.	8	-	-	-	-	-	27	-	11	3	150	6	-	-	1
Ala.	6	-	1	-	-	-	34	1	22	4	50	14	-	-	-
Miss.	5	-	-	-	-	17	25	-	7	-	11	3	-	-	-
W.S. CENTRAL	19	4	6	-	3	1,087	159	4	166	4	101	186	-	17	6
Ark.	3	-	-	-	-	-	16	-	4	-	7	10	-	-	-
La.	2	-	1	-	-	-	30	1	15	1	8	7	-	1	-
Okla.	4	-	-	-	-	11	25	2	10	3	64	27	-	1	-
Tex.	10	4	5	-	3	1,076	88	1	137	-	22	142	-	15	6
MOUNTAIN	27	-	3	-	1	28	135	1	48	25	279	264	-	7	7
Mont.	2	-	-	-	-	-	11	-	-	-	4	4	-	-	-
Idaho	1	-	-	-	-	-	10	-	5	19	92	39	-	1	1
Wyo.	-	-	-	-	-	1	2	-	2	-	1	-	-	-	-
Colo.	16	-	2	-	1	22	23	-	14	3	78	27	-	-	1
N. Mex.	5	-	-	-	-	2	4	N	N	1	33	60	-	-	-
Ariz.	-	-	-	-	-	3	67	-	7	-	43	108	-	2	2
Utah	1	-	-	-	-	-	11	1	4	-	25	24	-	3	1
Nev.	2	-	1	-	-	-	7	-	16	2	3	2	-	1	2
PACIFIC	249	-	89	-	14	108	303	2	240	10	417	488	1	65	73
Wash.	21	-	-	-	-	10	56	-	10	2	42	150	-	-	6
Oreg.	4	-	-	-	-	3	22	N	N	-	11	29	1	3	1
Calif.	218	-	78	-	4	54	204	2	204	8	349	283	-	35	44
Alaska	1	-	-	-	1	9	13	-	8	-	5	7	-	1	-
Hawaii	5	-	11	-	9	32	8	-	18	-	10	19	-	26	22
Guam	1	U	2	U	-	10	1	U	6	U	-	-	U	-	1
P.R.	-	-	224	-	-	339	7	-	2	-	2	12	-	-	-
V.I.	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-
Amer. Samoa	-	-	1	-	-	-	-	-	-	-	2	6	-	-	-
C.N.M.I.	-	-	-	-	1	2	-	-	12	-	1	1	-	-	-

*For measles only, imported cases include both out-of-state and international importations.
N: Not notifiable U: Unavailable † International § Out-of-state

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending September 11, 1993, and September 5, 1992 (36th Week)

Reporting Area	Syphilis (Primary & Secondary)		Toxic-Shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1993	Cum. 1992	Cum. 1993	Cum. 1993	Cum. 1992	Cum. 1993	Cum. 1993	Cum. 1993	Cum. 1993
UNITED STATES	17,675	23,818	170	14,103	15,598	94	221	310	6,063
NEW ENGLAND	281	474	11	335	315	-	18	3	1,013
Maine	4	5	2	26	18	-	-	-	-
N.H.	26	33	2	9	14	-	1	-	64
Vt.	1	1	1	4	4	-	-	-	19
Mass.	102	235	5	180	158	-	12	3	419
R.I.	12	23	1	39	23	-	-	-	-
Conn.	136	177	-	77	98	-	5	-	511
MID. ATLANTIC	1,677	3,345	29	3,266	3,735	1	47	23	2,361
Upstate N.Y.	145	257	15	323	468	1	10	4	1,818
N.Y. City	810	1,875	1	1,958	2,198	-	26	-	-
N.J.	234	421	-	526	637	-	8	10	293
Pa.	488	792	13	459	432	-	3	9	250
E.N. CENTRAL	2,601	3,612	40	1,326	1,524	5	27	11	76
Ohio	834	549	16	227	232	1	6	7	5
Ind.	222	195	1	143	117	1	1	1	5
Ill.	821	1,641	6	580	760	2	15	1	13
Mich.	418	688	17	313	350	1	4	2	11
Wis.	306	539	-	63	65	-	1	-	42
W.N. CENTRAL	1,114	1,010	11	328	379	31	2	14	261
Minn.	53	64	2	41	110	-	-	1	37
Iowa	33	37	5	38	27	-	-	4	46
Mo.	914	766	1	176	168	12	2	6	12
N. Dak.	1	1	-	5	7	-	-	-	51
S. Dak.	1	-	-	11	17	15	-	2	36
Nebr.	10	24	-	14	16	1	-	-	7
Kans.	102	118	3	43	34	3	-	1	72
S. ATLANTIC	4,785	6,504	22	2,450	2,865	2	33	146	1,427
Del.	84	152	1	32	36	-	1	1	109
Md.	263	465	1	273	242	-	7	11	413
D.C.	249	298	-	119	84	-	-	-	13
Va.	458	529	6	299	262	-	3	8	270
W. Va.	10	14	-	60	69	-	-	6	68
N.C.	1,342	1,712	3	350	357	1	2	83	68
S.C.	719	886	-	281	288	-	-	9	112
Ga.	790	1,283	2	540	608	-	1	22	328
Fla.	870	1,165	9	496	919	1	19	6	46
E.S. CENTRAL	2,725	2,970	9	922	1,012	4	5	37	159
Ky.	225	102	2	264	270	-	1	5	13
Tenn.	771	812	3	145	283	3	1	21	72
Ala.	589	1,056	2	345	275	1	3	4	74
Miss.	1,140	1,000	2	168	184	-	-	7	-
W.S. CENTRAL	3,747	4,241	2	1,550	1,783	36	3	66	398
Ark.	554	626	-	130	133	21	-	3	28
La.	1,791	1,755	-	-	138	-	1	1	5
Okla.	284	242	2	103	110	12	-	58	55
Tex.	1,118	1,618	-	1,317	1,402	3	2	4	310
MOUNTAIN	165	254	9	355	405	10	8	10	134
Mont.	1	7	-	15	-	5	-	1	17
Idaho	-	1	1	9	16	-	-	-	6
Wyo.	7	3	-	2	-	2	-	8	18
Colo.	44	37	2	32	30	-	5	1	21
N. Mex.	24	29	-	46	57	1	1	-	7
Ariz.	73	129	1	157	192	-	2	-	50
Utah	4	7	4	21	56	1	-	-	4
Nev.	12	41	1	73	54	1	-	-	11
PACIFIC	580	1,408	37	3,571	3,580	5	78	-	234
Wash.	38	67	7	176	205	1	4	-	-
Oreg.	53	30	-	77	89	2	-	-	-
Calif.	478	1,300	30	3,100	3,063	2	71	-	217
Alaska	6	4	-	38	47	-	-	-	17
Hawaii	5	7	-	180	176	-	3	-	-
Guam	1	3	-	28	58	-	-	-	-
P.R.	376	228	-	185	135	-	-	-	29
V.I.	34	51	-	2	3	-	-	-	-
Amer. Samoa	-	-	-	2	-	-	-	-	-
C.N.M.I.	3	5	-	23	43	-	-	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,* week ending September 11, 1993 (36th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	557	406	76	56	11	8	39
Boston, Mass.	124	81	20	17	2	4	10
Bridgeport, Conn.	41	32	3	4	1	1	2
Cambridge, Mass.	21	15	3	2	1	-	1
Fall River, Mass.	21	16	1	4	-	-	1
Hartford, Conn.	65	41	14	8	2	-	2
Lowell, Mass.	26	17	5	3	-	1	3
Lynn, Mass.	12	11	1	-	-	-	1
New Bedford, Mass.	25	24	1	-	-	-	-
New Haven, Conn.	38	29	4	4	1	-	4
Providence, R.I.	43	35	5	2	1	-	7
Somerville, Mass.	2	2	-	-	-	-	-
Springfield, Mass.	38	24	4	6	2	2	-
Waterbury, Conn.	34	26	5	2	1	-	2
Worcester, Mass.	67	53	10	4	-	-	6
MID. ATLANTIC	2,143	1,356	417	266	60	42	74
Albany, N.Y.	41	29	8	3	-	1	-
Allentown, Pa.	26	20	3	3	-	-	-
Buffalo, N.Y.	100	62	24	9	3	2	3
Camden, N.J.	43	24	11	7	1	-	-
Elizabeth, N.J.	23	14	4	4	-	1	-
Erie, Pa.§	29	26	1	2	-	-	3
Jersey City, N.J.	38	22	10	4	1	1	1
New York City, N.Y.	1,198	739	250	158	36	15	31
Newark, N.J.	55	27	11	15	2	-	4
Paterson, N.J.	U	U	U	U	U	U	U
Philadelphia, Pa.	230	141	40	27	7	13	8
Pittsburgh, Pa.§	56	35	12	6	2	1	5
Reading, Pa.	U	U	U	U	U	U	U
Rochester, N.Y.	131	91	16	13	6	5	8
Schenectady, N.Y.	24	19	2	3	-	-	1
Scranton, Pa.§	39	29	8	2	-	-	1
Syracuse, N.Y.	75	49	13	9	1	3	5
Trenton, N.J.	14	12	1	-	1	-	4
Utica, N.Y.	21	17	3	1	-	-	-
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	1,770	1,082	306	200	99	83	85
Akron, Ohio	41	28	7	2	2	2	-
Canton, Ohio	32	25	7	-	-	-	3
Chicago, Ill.	382	145	59	67	57	54	16
Cincinnati, Ohio	76	53	12	9	1	1	6
Cleveland, Ohio	128	83	24	16	3	2	2
Columbus, Ohio	151	101	29	13	5	3	8
Dayton, Ohio	92	64	17	9	-	2	4
Detroit, Mich.	191	107	41	30	10	3	5
Evansville, Ind.	38	26	11	1	-	-	-
Fort Wayne, Ind.	36	26	9	1	-	-	-
Gary, Ind.	21	11	4	3	2	1	-
Grand Rapids, Mich.	47	36	7	3	-	1	8
Indianapolis, Ind.	146	99	24	13	8	2	5
Madison, Wis.	26	18	2	2	1	3	2
Milwaukee, Wis.	99	63	17	16	2	1	6
Peoria, Ill.	43	38	1	2	1	1	5
Rockford, Ill.	41	30	5	3	1	2	3
South Bend, Ind.	39	30	5	2	1	1	7
Toledo, Ohio	93	65	15	6	4	3	4
Youngstown, Ohio	48	34	10	2	1	1	1
W.N. CENTRAL	619	436	101	48	18	15	31
Des Moines, Iowa	109	67	23	9	7	3	5
Duluth, Minn.	17	12	4	-	-	1	1
Kansas City, Kans.	32	22	3	2	3	2	2
Kansas City, Mo.	87	67	11	7	2	-	6
Lincoln, Nebr.	21	16	4	1	-	-	1
Minneapolis, Minn.	105	77	17	7	3	1	7
Omaha, Nebr.	61	43	9	8	-	1	4
St. Louis, Mo.	103	70	18	8	2	5	-
St. Paul, Minn.	36	30	3	1	1	1	1
Wichita, Kans.	48	32	9	5	-	1	4

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,272	746	238	185	49	54	60
Atlanta, Ga.	108	64	18	19	4	3	5
Baltimore, Md.	309	181	56	52	10	10	23
Charlotte, N.C.	83	53	10	14	4	2	5
Jacksonville, Fla.	102	66	25	5	4	2	5
Miami, Fla.	111	57	29	17	6	2	-
Norfolk, Va.	40	20	6	-	7	7	-
Richmond, Va.	69	38	14	16	1	-	5
Savannah, Ga.	41	25	7	6	1	2	2
St. Petersburg, Fla.	52	39	7	2	1	3	2
Tampa, Fla.	137	91	25	18	2	1	8
Washington, D.C.	208	102	40	35	9	22	5
Wilmington, Del.	12	10	1	1	-	-	-
E.S. CENTRAL	707	440	156	65	21	25	47
Birmingham, Ala.	111	63	23	16	5	4	1
Chattanooga, Tenn.	55	29	18	4	1	3	4
Knoxville, Tenn.	89	57	18	9	3	2	4
Lexington, Ky.	61	46	11	1	3	-	9
Memphis, Tenn.	174	112	40	13	2	7	15
Mobile, Ala.	51	31	10	7	1	2	4
Montgomery, Ala.	51	34	9	3	3	2	-
Nashville, Tenn.	115	68	27	12	3	5	10
W.S. CENTRAL	1,266	728	238	146	98	54	50
Austin, Tex.	50	34	4	6	3	3	2
Baton Rouge, La.	42	19	11	8	3	1	1
Corpus Christi, Tex.	38	18	8	8	3	1	2
Dallas, Tex.	208	121	40	28	9	10	-
El Paso, Tex.	70	48	14	4	4	-	2
Ft. Worth, Tex.	90	56	16	12	6	-	3
Houston, Tex.	249	140	49	38	16	6	24
Little Rock, Ark.	50	34	9	4	2	1	5
New Orleans, La.	171	64	30	13	40	22	-
San Antonio, Tex.	167	99	35	18	7	8	5
Shreveport, La.	42	28	9	3	2	-	3
Tulsa, Okla.	89	67	13	4	3	2	3
MOUNTAIN	635	428	110	68	21	8	41
Albuquerque, N.M.	42	25	7	5	4	1	1
Colo. Springs, Colo.	53	39	13	-	-	1	4
Denver, Colo.	91	60	16	12	2	1	5
Las Vegas, Nev.	112	70	26	13	2	1	5
Ogden, Utah	20	15	2	2	1	-	-
Phoenix, Ariz.	134	86	25	16	6	1	14
Pueblo, Colo.	33	23	3	6	1	-	1
Salt Lake City, Utah	81	57	12	8	3	1	7
Tucson, Ariz.	69	53	6	6	2	2	4
PACIFIC	1,185	783	211	130	38	23	65
Berkeley, Calif.	14	12	2	-	-	-	1
Fresno, Calif.	62	40	16	3	2	1	1
Glendale, Calif.	U	U	U	U	U	U	U
Honolulu, Hawaii	61	46	8	3	1	3	8
Long Beach, Calif.	80	54	17	4	3	2	4
Los Angeles, Calif.	U	U	U	U	U	U	U
Pasadena, Calif.	23	15	5	1	1	1	-
Portland, Oreg.	122	80	21	10	8	3	2
Sacramento, Calif.	155	106	22	17	8	2	10
San Diego, Calif.	132	79	21	23	5	4	12
San Francisco, Calif.	133	62	21	40	6	4	3
San Jose, Calif.	136	103	24	6	2	1	9
Santa Cruz, Calif.	31	24	5	2	-	-	2
Seattle, Wash.	113	75	27	10	1	-	3
Spokane, Wash.	46	33	10	3	-	-	3
Tacoma, Wash.	77	54	12	8	1	2	7
TOTAL	10,154¶	6,405	1,853	1,164	415	312	492

*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.

U: Unavailable.

Tuberculosis Morbidity — Continued

From 1986 (the first year in which all states reported the country of origin for persons with TB) through 1992, reported cases among foreign-born persons[†] increased 47.6%. As a proportion of total reported cases, reported cases among foreign-born persons increased from 21.6% in 1986 to 27.3% in 1992. Of cases reported in 1992 among foreign-born persons whose year of arrival was known (83.6%), 58% had been in the United States for 5 years or less.

Reported by: Div of Tuberculosis Elimination, National Center for Prevention Svcs, CDC.

Editorial Note: In 1992, TB cases increased among some racial/ethnic minorities, among foreign-born persons, and among persons aged 25–44 years and ≤15 years. The increases among Hispanics, non-Hispanic blacks, and Asians/Pacific Islanders primarily reflect the greater occurrence of TB among 1) persons infected with human immunodeficiency virus (HIV), 2) persons immigrating from countries with a high incidence of TB, and 3) primary transmission in these groups (*1–8*). Other contributing factors include socioeconomic factors such as substance abuse, limited access to health care, poverty, substandard housing, and homelessness (*9*). The increase in the 25–44-year age group and in urban areas is related, at least in part, to HIV infection. Results from CDC-funded unlinked surveys in TB clinics showed an HIV prevalence of 47% in 25–44-year-old U.S.-born patients (CDC, unpublished data, 1991). Increasing rates of TB among children aged ≤15 years may reflect increasing rates of transmission of *Mycobacterium tuberculosis* among adults.

Among persons coinfected with *M. tuberculosis* and HIV, the risk for developing active TB is substantially increased because of HIV-related immunosuppression (*4*). Since 1989, the Advisory Committee for the Elimination of Tuberculosis has recommended that HIV-infected persons be screened for TB and latent TB infection and, if infected, be offered appropriate curative or preventive therapy (*3*). In addition, persons with TB and tuberculin skin test-positive persons should be evaluated for HIV infection to enable initiation of appropriate counseling and treatment (*3*). Since January 1993, results of HIV testing of TB patients have been collected on the confidential TB case-report form (Report of a Verified Case of Tuberculosis form). CDC also has been conducting HIV serosurveys in TB clinics since 1988 (*5*). These data will assist in more accurately determining the impact of HIV infection on TB morbidity trends in the United States.

To determine factors responsible for the increasing trends, CDC, in collaboration with state and local health departments, has expanded TB surveillance to include additional information on risks for acquiring TB (including immunosuppression) and for nonadherence to therapy, drug-susceptibility results, and outcomes of therapy. In addition, state and local health departments have been encouraged to implement active surveillance for TB cases. In 1993, six state and local health departments have initiated programs to assess completeness of reporting of TB cases. Their findings can assist other health departments in developing strategies to improve the completeness of reporting, communicate with reporting sources, correct deficiencies in health-care provider knowledge about reporting TB, and improve diagnostic evaluation of suspect TB cases.

[†]Persons born outside the United States and its territories.

Tuberculosis Morbidity — Continued

References

1. Bloch AB, Cauthen GM, Hayden CH, Snider DE. Theepidemiology of tuberculosis in the United States. Semin Respir Infect 1989;4:157–70.
2. CDC. Tuberculosis and acquired immunodeficiency syndrome—Florida. MMWR 1986;35:587–90.
3. CDC. Tuberculosis and human immunodeficiency virus infection: recommendations of the Advisory Committee for the Elimination of Tuberculosis (ACET). MMWR 1989;38:236–8, 243–50.
4. Selwyn PA, Hartel D, Lewis VA, et al. A prospective study of the risk of tuberculosis among intravenous drug users with human immunodeficiency virus infection. N Engl J Med 1989;320:545–50.
5. Onorato IM, McCray E. Prevalence of human immunodeficiency virus among patients attending tuberculosis clinics in the United States. J Infect Dis 1992;165:87–92.
6. Theuer CP, Hopewell PC, Elias D, et al. Human immunodeficiency virus infection in tuberculosis patients. J Infect Dis 1990;162:8–12.
7. CDC. Outbreak of multidrug-resistant tuberculosis at ahospital—New York City, 1991. MMWR 1993;42:427,433–4.
8. Barnes PF, Bloch AB, Davidson PT, Snider DE. Tuberculosis in patients with human immunodeficiency virus infection. N Engl J Med 1991;234:1644–50.
9. CDC. Prevention and control of tuberculosis in U.S. communities with at-risk minority populations: recommendations of the Advisory Council for theElimination of Tuberculosis. MMWR 1992;41(no. RR-5):1–11.

Effectiveness in Disease and Injury Prevention

Public Health Focus: Impact of Safety-Belt Use on Motor-Vehicle Injuries and Costs — Iowa, 1987–1988

Each year in the United States, motor-vehicle–related trauma results in approximately 40,000 deaths, 5.4 million nonfatal injuries, and $15.4 billion in direct medical costs and costs of emergency services (*1,2*). The use of safety belts reduces the number and severity of injuries from motor-vehicle crashes, and since states began enacting safety-belt laws, the prevalence of safety-belt use in the United States has increased substantially (*3*). In Iowa, where a safety-belt use law was enacted in 1986, the observed rate of safety-belt use increased from 18% in 1985 to 55% in 1988 (*4*). Data from the Iowa Safety Restraint Assessment were used to estimate the effect of this increase on injury severity and hospital costs and to estimate the statewide savings in direct costs (i.e., hospital and professional fees) and indirect costs (i.e., administrative costs and loss of productivity) for 1 year (*5*). This report summarizes the findings of this study.

The Iowa Safety Restraint Assessment was conducted by the Iowa Methodist Medical Center from November 1, 1987, through March 31, 1988. Data were gathered on injured motor-vehicle occupants treated at nine urban (population: >50,000 persons each) and seven rural hospital emergency departments located in all regions of Iowa. Emergency department nurses conducted interviews with patients or obtained information from other sources (e.g., witnesses, ambulance personnel, or police on the crash scene) when patients were unable to answer questions because of severe injury or alcohol intoxication. Persons were asked about safety-belt use at the time of the crash, vehicle type and speed, type of crash (e.g., head-on or rear-end), and position of person(s) in the vehicle. Alcohol use was defined as a blood alcohol content of

Safety-Belt Use — Continued

≥0.01 g/dL or documented clinical suspicion of alcohol use in the medical record. The hospitals provided data on hospital charges and estimated payments by source (i.e., private insurance, Medicare, Medicaid, and self-pay [uninsured]). Analyses were restricted to persons subject to the provisions of the safety-belt use law (i.e., front-seat occupants aged ≥6 years) and to the 11 hospitals that provided cost data. Costs associated with injuries for each participating hospital were calculated by multiplying its charges by the average percentage of charges collected from each source of payment. The projected annual statewide savings in direct and indirect costs for 1 year were based on a comparison between estimates of actual costs for the study population and expected costs if safety-belt use in Iowa remained at 18% (*5*).

During the 5-month period, 997 patients met the criteria for inclusion in the study. The overall prevalence of safety-belt use at the time of crash among the case-patients was 50.5%. The mean age for nonbelted persons (n=494) was significantly lower than that for belted persons (n=503) (28.2 years versus 34.9 years [p<0.001]). Nonbelted occupants were more likely to be male, have consumed alcohol, have been in a head-on or rollover crash, have had higher injury severity scores (p<0.001), have been hospitalized (25.6% versus 7.6% [p<0.001]), have been permanently disabled (2.0% versus 0.2% [p=0.005]), or have died in the hospital (0 versus 2.0% [p=0.001]).

Nonbelted persons accounted for 78% of hospital costs. Although most injured persons had private insurance, nonbelted occupants were more likely than belted occupants to be covered by Medicaid (10.5% versus 1.4%) or to be uninsured (19.6% versus 5.6%). Mean hospital costs were 3.6 times higher for nonbelted than for belted persons ($2660 versus $738), and median hospital costs were 35% higher ($182 versus $135 [p=0.001]).

Observed and expected lifetime direct and indirect costs of injury were based on estimates for injuries resulting from motor-vehicle crashes using the human capital approach (*6*). Initial hospital costs, including professional fees, accounted for an estimated 30% of all lifetime direct costs; lifetime indirect costs were approximately three times greater than lifetime direct costs (*5*). The estimated savings in the lifetime cost of injury (direct plus indirect cost) associated with increased safety-belt use for the study population was more than $7.9 million. Based on these findings, the statewide savings in the long-term direct and indirect costs of injuries resulting from the increase in safety-belt use for 1 year were approximately $69 million.

Reported by: TD Peterson, Iowa Methodist Medical Center, Des Moines. Div of Unintentional Injuries, National Center for Injury Prevention and Control, CDC.

Editorial Note: Motor-vehicle crashes are the leading cause of death for persons in all age groups from 1 through 34 years. The proper use of lap and shoulder belts reduces the risk for death from motor-vehicle crashes by 43% and of serious injury by 43%–52%, making safety-belt use potentially the single most effective method for preventing injuries from motor-vehicle crashes (*7*). In addition to confirming that safety-belt use decreases the severity of motor-vehicle injuries (*3*), the findings in this report document that wearing safety belts substantially decreases the costs associated with motor-vehicle injury (*8*).

In the United States and in other countries, safety-belt use laws have been the most effective intervention to increase safety-belt use (*3*). Safety belts have been required in cars marketed in the United States since 1966; in 1983, however, before any state had enacted a safety-belt use law, the prevalence of front-seat occupant use was

Safety-Belt Use — Continued

15% (*3*). As of September 1, 1993, 43 states and the District of Columbia had implemented safety-belt laws, and the national rate of safety-belt use has increased to 62% (*1*). Rates of use are higher in states that allow primary enforcement of safety-belt use laws than in those that allow only secondary enforcement (*3*).*

One of the national health objectives for the year 2000 (*9*) is to increase to at least 85% the use of occupant protection systems (i.e., safety belts, inflatable safety restraints, and child safety seats) (objective 9.12). Achievement of this objective is being assisted by a requirement that, beginning with the 1990 model year, passive-restraint systems be installed in all cars marketed in the United States. In addition,10 states now allow primary enforcement of safety-belt use.

Nearly 30% of the first-year medical costs of hospitalized persons injured in motor-vehicle crashes in the United States is paid by federal, state, or local government sources such as Medicaid and Medicare (*10*). Estimates of cost savings and of fatality and injury reductions associated with safety-belt use and other preventive measures can assist legislators and voters in making informed decisions in mandating safety-belt use. After the Iowa Safety Restraint Assessment, repeal of Iowa's safety-belt use law was considered; however, findings from this study had a substantial impact on the state legislature's decision to retain the law.

References

1. National Highway Traffic Safety Administration. Card announces record year for highway safety [News release]. Washington, DC: US Department of Transportation, December 1992.
2. Blincoe LJ, Faigin BM. The economic cost of motor vehicle crashes, 1990. Washington, DC: US Department of Transportation, National Highway Traffic Safety Administration, 1992; report no. DOT-HS-807-876.
3. Campbell BJ, Campbell FA. Injury reduction and belt use associated with occupant restraint laws. In: Graham JD, ed. Preventing automobile injury: new findings from evaluation research. Dover, Massachusetts: Auburn House, 1988:24–50.
4. Iowa Department of Transportation. Observational safety belt usage survey. Des Moines: Iowa Department of Transportation, Office of Driver Services, 1988.
5. Nelson DE, Peterson TD, Chorba TL, Devine OJ, Sacks JJ. Cost savings associated with increased safety belt use in Iowa, 1987–1988. Accid Anal Prev 1993;25:521–8.
6. Rice DP, MacKenzie EJ, Jones AS, et al. The cost of injury in the United States: a report to Congress. San Francisco: University of California, Institute of Health and Aging; Johns Hopkins University, Injury Prevention Center, 1989.
7. Evans L. The effectiveness of safety belts in preventing fatalities. Accid Anal Prev 1986;18:229–41.
8. Peterson TD. Trauma prevention from the use of seat belts. Iowa Med 1987;77:233–6.
9. Public Health Service. Healthy people 2000: national health promotion and disease prevention objectives—full report, with commentary. Washington, DC: US Department of Health and Human Services, Public Health Service, 1991; DHHS publication no. (PHS)91-50212.
10. Harris JS. Source of payment for the medical cost of motor vehicle injuries in the United States, 1990. Washington, DC: US Department of Transportation, National Highway Traffic Safety Administration, 1992; report no. DOT-HS-807-800.

*Primary enforcement safety-belt use laws permit law enforcement officers to stop drivers for a safety-belt law violation alone. Secondary enforcement laws require that a person be stopped for a separate infraction before being cited for a safety-belt law violation.

Emerging Infectious Diseases

Update: Hantavirus-Associated Illness — North Dakota, 1993

On August 27, 1993, a previously healthy 14-year-old North Dakota boy died suddenly after a brief unexplained febrile respiratory illness. Subsequent examination at CDC of specimens from this patient demonstrated the presence of serum immunoglobulin M antibody to hantavirus antigens, a positive polymerase chain reaction assay for hantavirus genetic sequences in multiple tissues, and a positive immunohistochemical stain for hantavirus antigen in lung tissue, confirming the diagnosis of acute hantavirus infection. The patient had no history of recent travel outside the west north central region. An ongoing investigation of this illness is being conducted by the state health department, the Indian Health Service, and CDC.

Reported by: WB Kingree, MD, D Deegan, Fort Totten; RW Petty, MD, Devil's Lake; L Johnson, MD, Grand Forks; SL McDonough, MD, LA Shireley, MPH, State Epidemiologist, North Dakota State Dept of Health and Consolidated Laboratories. TK Welty, MD, Indian Health Service, Rapid City, South Dakota. Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

Editorial Note: The recognition of a case of hantavirus-associated respiratory illness in North Dakota, in addition to previously confirmed cases that have occurred outside of the four-corners region of the Southwest (*1–4*), reinforces the need for clinicians throughout the United States to maintain a high index of suspicion for this condition and to inform local or state health authorities of suspected cases. As of September 15, 36 cases, including the one reported here, have been confirmed in the United States. Interim recommendations to reduce the risk of exposure to potentially infected rodents in the southwestern United States have been published (*5*); these recommendations generally are applicable to rural settings in other parts of the country.

References

1. CDC. Update: outbreak of hantavirus infection—southwestern United States, 1993. MMWR 1993;42:495–6.
2. CDC. Update: hantavirus infection—United States, 1993. MMWR 1993;42:517–9.
3. CDC. Update: hantavirus disease—southwestern United States, 1993. MMWR 1993;42:570–2.
4. CDC. Update: hantavirus disease—United States, 1993. MMWR 1993;42:612–4.
5. CDC. Hantavirus infection—southwestern United States: interim recommendations for risk reduction. MMWR 1993;42(no. RR-11).

Notice to Readers

Sensitivity of the Test for Antibody to Hepatitis B Surface Antigen — United States

Beginning in March 1986, some test kits for antibody to hepatitis B surface antigen (anti-HBs) were modified to increase sensitivity, and new anti-HBs tests were introduced with increased sensitivity for detecting anti-HBs. To assess the impact of this increased sensitivity on the interpretation of hepatitis B postvaccination testing results, the Food and Drug Administration (FDA) conducted a study of currently

Notices to Readers — Continued

distributed anti-HBs test kits to determine the lower limits of their sensitivity relative to the World Health Organization (WHO) Anti-HBs Reference Preparation. In addition, CDC conducted a study among a group of vaccinated public safety workers to determine the positive predictive values of the current anti-HBs tests when used to evaluate immunity after hepatitis B vaccination. This report provides background to and summarizes the results of these two studies.

One of the uses for the test for anti-HBs is to evaluate the immune response in persons who have received hepatitis B vaccine. In its initial recommendations, the Immunization Practices Advisory Committee (ACIP) defined an adequate (protective) antibody response as ≥10 sample ratio units (SRU [sample signal divided by the test kit negative control mean]) by radioimmunoassay (RIA) (*1*). This level was based on results of routine screening and hepatitis B vaccine-efficacy studies conducted in the early 1980s (*2–5*). Subsequently, the determination of anti-HBs levels was standardized by expressing anti-HBs concentrations in milli-international units per milliliter (mIU/mL) using the WHO Anti-HBs Reference Preparation (*6*), and an anti-HBs level of ≥10 mIU/mL was recommended by ACIP as the standard for demonstrating postvaccination protection against hepatitis B (*7*). Because the value of 10 SRU by RIA and the manufacturers' recommended positive threshold for enzyme immunoassays (EIA) were similar to 10 mIU/mL, ACIP recommendations issued in 1987 defined the protective level of anti-HBs as ≥10 mIU/mL, approximately equivalent to 10 SRU by RIA or positive by EIA (*7*).

To determine the lower limits of the sensitivity of currently distributed anti-HBs test kits relative to the WHO Anti-HBs Reference Preparation, in 1991, FDA made a single quantitative determination of anti-HBs for each of the kits licensed in the United States and for each of the different testing procedures (i.e., short and long incubation). The lower limits of detection were estimated at <5 mIU/mL using all assays and all procedures, suggesting that in some hepatitis B vaccine recipients tested 1–6 months after their last dose of vaccine, an anti-HBs test result of ≥10 SRU by RIA or positive by EIA determined after March 1986 may not be indicative of immunity because the quantity of anti-HBs may be <10 mIU/mL.

To determine the positive predictive values of current anti-HBs tests, CDC compared anti-HBs results by RIA and by EIA with titers expressed in mIU/mL in serum

TABLE 1. Comparison of antibody to hepatitis B surface antigen (anti-HBs) test results, by radioimmunoassay (RIA) and enzyme immunoassay (EIA) with titers expressed in milli-international units (mIU) per mL in serum samples from 437 public safety workers 1–6 months after receiving hepatitis B vaccine

Anti-HBs test	Total tested	Positive*		Titers <10 mIU/mL		Positive predictive value		
		No.	(%)	No.	(%)	No. positive	No. with titers ≥10 mIU/mL	(%)
RIA	437	363	(83.1)	3	(0.8)	363	360	(99.2)
EIA	437	378	(86.5)	9	(2.4)	378	369	(97.6)

*≥10 sample ratio units by RIA or positive by EIA. The overall anti-HBs response to hepatitis B vaccine was lower than expected because this population included a large proportion of persons who were aged >40 years, overweight, and/or smokers, factors associated with nonresponse to hepatitis B vaccine (*8*).

Notices to Readers — Continued

samples from a group of public safety workers vaccinated 1–6 months before testing (Table 1). Of 363 vaccine recipients who had responses of ≥10 SRU by RIA, three (0.8% [95% confidence interval (CI)=0.2%–2.6%]) had titers <10 mIU/mL. Of 378 recipients who were positive by EIA, nine (2.4% [95% CI=1.2%–4.6%]) had titers <10 mIU/mL. On the basis of these results, the positive predictive values of currently available RIA and EIA tests in predicting an anti-HBs titer of ≥10 mIU/mL are 99.2% and 97.6%, respectively.

Reported by: Laboratory of Hepatitis, Div of Transfusion Transmitted Diseases, Office of Blood Research and Review, Center for Biologics Evaluation and Research, Food and Drug Administration. Hepatitis Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

Editorial Note: ACIP recommends that a protective level of anti-HBs be defined as ≥10 mIU/mL (*9*). To avoid misinterpretation of positive anti-HBs test results, anti-HBs test-kit manufacturers are planning to revise their test kits to include a 10 mIU/mL standard reagent referenced to the WHO anti-HBs standard. This kit labeling and design change does not affect the use of the test kits for diagnosis and monitoring of hepatitis B virus infection.

ACIP recommendations for management of vaccinated persons exposed to blood that contains or might contain hepatitis B surface antigen (HBsAg) vary depending on whether the exposed person is known to be a primary hepatitis B vaccine responder (*9*). The increased sensitivity of the anti-HBs tests may have resulted in a small number of persons who were incorrectly considered to have protective anti-HBs levels after vaccination if they were tested since March 1986, and their test results were based on values of ≥10 SRU by RIA or positivity by EIA. If such persons are exposed to an HBsAg-positive source and have not had a quantitative determination of anti-HBs (based on values of ≥10 mIU/mL) following vaccination, CDC recommends that they be considered as having an unknown response to hepatitis B vaccine when following postexposure prophylaxis guidelines (*9*).

Although the sensitivity of both the RIA and EIA anti-HBs tests has increased since March 1986, this increase has not substantially affected the ability of these assays to determine whether vaccinated persons have protective antibody levels. In addition, no cases of hepatitis B have been reported in persons considered to be hepatitis B vaccine responders. Therefore, retesting of persons in whom postvaccination testing was done who do not have an exposure to an HBsAg-positive source is not recommended.

Although the findings of the CDC study are not directly related to the use of anti-HBs testing for prevaccination serologic screening, such screening is recommended only in populations in which the prevalence of prior infection is expected to be high and screening is cost effective. Because few false positives would be expected in such populations even with the more sensitive anti-HBs test kits, retesting of persons who have had prevaccination anti-HBs testing since March 1986 is not recommended.

References

1. CDC. Inactivated hepatitis B virus vaccine. MMWR 1982;31:317–22,327–8.
2. Francis DP, Hadler SC, Thompson SE, et al. The prevention of hepatitis B with vaccine: report of the Centers for Disease Control multi-center efficacy trial among homosexual men. Ann Intern Med 1982;97:362–6.
3. Hadler SC, Murphy BL, Schable CA, Heyward WL, Francis DP, Kane MA. Epidemiological analysis of the significance of low-positive test results for antibody to hepatitis B and core antigens. J Clin Microbiol 1984;19:521–5.

Notices to Readers — Continued

4. Werner BG, Dienstag JL, Kuter BJ, et al. Isolated antibody to hepatitis B surface antigen and response to hepatitis B vaccination. Ann Intern Med 1985;103:201–5.
5. Kessler HA, Harris AA, Payne JA, Hudson E, Potkin B, Levin S. Antibodies to hepatitis B surface antigen as the sole hepatitis B marker in hospital personnel. Ann Intern Med 1985;103:21–6.
6. Hollinger FB, Adam E, Heiberg D, Melnick JL. Response to hepatitis B vaccine in a young adult population. In: Szmuness W, Alter HJ, Maynard JE, eds. Viral hepatitis 1981 international symposium. Philadelphia: Franklin Institute Press, 1982:451–66.
7. CDC. Update on hepatitis B prevention. MMWR 1987;36:354–60,366.
8. Hadler SC, Margolis HS. Hepatitis B immunization: vaccine types, efficacy, and indications for immunization. In: Remington JS, Schwarz MN, eds. Current clinical topics in infectious diseases. Boston: Blackwell Scientific Publications, 1992:282–308.
9. CDC. Hepatitis B virus: a comprehensive strategy for eliminating transmission in the United States through universal childhood vaccination—recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991;40(RR-13).

Notice to Readers

NIOSH Alert: Request for Assistance in Preventing Injuries and Deaths from Metal-Reinforced Hydraulic Hoses

CDC's National Institute for Occupational Safety and Health (NIOSH) periodically issues alerts on workplace hazards that have caused death, serious injury, or illness to workers. One such alert, *Request for Assistance in Preventing Injuries and Deaths from Metal-Reinforced Hydraulic Hoses* (*1*), was recently published and is available to the public.*

This alert warns workers that they may be burned or electrocuted when using metal-reinforced hydraulic hoses on aerial bucket trucks near energized power lines. One fatality occurred when a metal-reinforced hydraulic hose on an aerial bucket truck ruptured and caused a fire after contacting energized power lines. The worker, an electrical lineman, died when he jumped from the burning aerial bucket and fell 35 feet. Subsequent inspection of aerial bucket trucks by the local utility company found that several metal-reinforced hydraulic hoses were installed on booms or aerial buckets that might be used near energized power lines.†

Workers at other utility companies or electrical contracting companies may be exposed to similar hazards associated with metal-reinforced hydraulic hoses. Recommendations to control the hazards associated with hydraulic hoses used on aerial bucket trucks are provided in the alert.

Reference

1. NIOSH. NIOSH alert: request for assistance in preventing injuries and deaths from metal-reinforced hydraulic hoses. Cincinnati: US Department of Health and Human Services, Public Health Service, CDC, 1993; DHHS publication no. (NIOSH)93-105.

*Single copies of this document are available without charge from the Information Dissemination Section, Division of Standards Development and Technology Transfer, NIOSH, CDC, 4676 Columbia Parkway, Cincinnati, OH 45226; telephone (513) 533-8287 (1:00–4:30 p.m., Eastern time); fax (513) 533-8573.

†Occupational Safety and Health Administration regulations [29 CFR § 1926.951(f)(3)] require the use of nonconducting hydraulic hoses near energized power lines.

Notices to Readers — Continued

Notice to Readers

Fourth International Conference on Travel Medicine

CDC, the World Health Organization, the Pan American Health Organization, the World Tourism Organization, and the Infectious Diseases Society of Mexico will cosponsor the Fourth International Conference on Travel Medicine April 23–27, 1995, in Acapulco, Mexico.

The conference will focus on health risks for travelers; health aspects for temporary residents; acquired immunodeficiency syndrome; malaria; vaccine-preventable diseases; travelers' diarrhea; respiratory diseases and other infections; individual preventive measures; vaccines, immune globulins, and chemoprophylaxis; noninfectious diseases; jet lag and motion sickness; psychological aspects of travel; injuries; health promotion for travelers; environmental health aspects; illness and medical care abroad; self-diagnosis and self-treatment; medical evacuation; and travelers' clinics.

Additional information is available from the Fourth International Conference on Travel Medicine, 8000 Westpark Drive, Suite 130, McLean, VA 22102; telephone (703) 790-1745; fax (703) 790-9063.

The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 783-3238.

The data in the weekly *MMWR* 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. Inquiries about the *MMWR* Series, including material to be considered for publication, should be directed to: Editor, *MMWR* Series, Mailstop C-08, Centers for Disease Control and Prevention, Atlanta, GA 30333; telephone (404) 332-4555.

☆**U.S. Government Printing Office: 1993-733-131/83029 Region IV**