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Current Trends

Alcohol-Related Traffic Fatalities — United States, 1982–1989

Traffic crashes are the leading cause of death in the United States for all age groups from 1 through 34 years (*1*). Almost half of all traffic fatalities are alcohol-related (*2,3*), and an estimated 40% of all persons in the United States may be involved in an alcohol-related traffic crash sometime during their lives (*3*). This report summarizes data from the National Highway Traffic Safety Administration's (NHTSA) Fatal Accident Reporting System on trends in alcohol-related traffic fatalities (ARTFs) in the United States during 1982–1989.

A fatal traffic crash is considered alcohol-related by NHTSA if either a driver or nonoccupant (e.g., a pedestrian) had a blood alcohol concentration (BAC) of ≥0.01 g/dL in a police-reported traffic crash. NHTSA defines a BAC of ≥0.01 g/dL but <0.10 g/dL as indicating a low level of alcohol and a BAC of ≥0.10 g/dL (the legal level of intoxication in most states) as indicating intoxication. Because BAC levels are not available for all persons involved in fatal crashes, NHTSA estimates the number of ARTFs based on a discriminant analysis of information from all cases for which driver or nonoccupant BAC data are available (*4*).

From 1982 through 1989, the estimated number of fatalities in crashes in which at least one driver or nonoccupant was intoxicated decreased 12%, from 20,356 to 17,849 (Table 1). During the same period, the estimated number of intoxicated drivers involved in fatal crashes decreased 13%, from 16,793 to 14,644 (Table 2). The estimated number of drivers with low-level BAC involved in fatal crashes decreased 9%, from 4987 to 4540 (Table 2); however, the percentage of total fatalities involving a driver or nonoccupant with a low-level BAC remained between 10% and 11% (Table 1).

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Editorial Note: Although the number of ARTFs in the United States has decreased since 1982, alcohol-impaired driving remains a serious public health problem (*5*): in 1989, >22,000 ARTFs occurred in the United States. Moreover, the rate of decline in ARTFs has slowed (average annual decrease during 1982–1985: 3.7%; average annual decrease during 1985–1989: 1.7%) (Table 1). During 1982–1985, the reduction

Traffic Fatalities — Continued

in alcohol-related fatal crashes resulted from a decreased proportion of fatal crashes involving persons with BAC levels ≥0.10 g/dL (Table 1). The reduction since 1986 appears to reflect a decreased proportion of fatal crashes involving both drivers with low-level BACs and drivers with BACs ≥0.10 g/dL (Table 2).

Factors that may have contributed to the reduction in ARTFs include 1) changes in state laws and stricter enforcement of these laws, 2) increases in the minimum legal drinking age in 35 states from 1982 through 1987, 3) increased media attention resulting in increased public awareness, and 4) increased number of programs

TABLE 1. Estimated number and percentage of total traffic fatalities involving at least one person* with a blood alcohol concentration (BAC), by BAC level — United States, 1982–1989

Year	No. fatalities	Fatalities by BAC†					
		BAC = 0.00		0.01% ≤BAC <0.10%		BAC ≥0.10%	
		No.	(%)	No.	(%)	No.	(%)
1982	43,945	18,780	(42.7)	4,809	(10.9)	20,356	(46.3)
1983	42,589	18,943	(44.5)	4,472	(10.5)	19,174	(45.0)
1984	44,257	20,499	(46.3)	4,766	(10.8)	18,992	(42.9)
1985	43,825	21,109	(48.2)	4,604	(10.5)	18,111	(41.3)
1986	46,087	22,042	(47.8)	5,109	(11.1)	18,936	(41.1)
1987	46,390	22,749	(49.0)	5,112	(11.0)	18,529	(39.9)
1988	47,087	23,461	(49.8)	4,895	(10.4)	18,731	(39.8)
1989	45,555	23,140	(50.8)	4,566	(10.0)	17,849	(39.2)

Source: Fatal Accident Reporting System, National Highway Traffic Safety Administration.
*Driver or nonoccupant.
†Estimates of percentage of fatalities are based on BAC testing data for persons involved in fatal crashes. Numbers of fatalities are rounded to nearest whole number.

TABLE 2. Estimated number and percentage of drivers involved in fatal crashes, by driver* blood alcohol concentration (BAC) level — United States, 1982–1989

Year	No. drivers	Drivers by BAC†					
		BAC = 0.00		0.01% ≤BAC <0.10%		BAC ≥0.10%	
		No.	(%)	No.	(%)	No.	(%)
1982	56,029	34,250	(61.1)	4,987	(8.9)	16,793	(30.0)
1983	54,656	34,145	(62.5)	4,677	(8.6)	15,834	(29.0)
1984	57,512	36,831	(64.0)	4,952	(8.6)	15,729	(27.3)
1985	57,883	38,321	(66.2)	4,668	(8.1)	14,895	(25.7)
1986	60,335	39,633	(65.7)	5,140	(8.5)	15,561	(25.8)
1987	61,442	41,049	(66.8)	5,060	(8.2)	15,333	(25.0)
1988	62,253	41,813	(67.2)	4,957	(8.0)	15,483	(24.9)
1989	60,398	41,214	(68.2)	4,540	(7.5)	14,644	(24.2)

Source: Fatal Accident Reporting System, National Highway Traffic Safety Administration.
*Driver may or may not have been killed.
†Estimates of percentage of drivers involved in fatal crashes are based on BAC testing data for drivers involved in fatal crashes. Numbers of drivers are rounded to nearest whole number.

Traffic Fatalities — Continued

emphasizing responsible behavior and alternatives to drinking and driving (e.g., education of persons who serve alcoholic beverages and designation of nondrinking drivers) (*6*). NHTSA program efforts for further reducing alcohol-impaired driving and continuing the downward trend in alcohol-related fatal crashes include 1) supporting activities to promote prompt license suspension for persons who drive while intoxicated, 2) supporting expanded use of sobriety checkpoints, 3) developing enforcement policies specific to reducing alcohol-impaired driving among youth, and 4) educating the public about alcohol-impaired driving, particularly among youth (*7*).

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Seasonality in Sudden Infant Death Syndrome — United States, 1980–1987

Sudden infant death syndrome (SIDS) is the sudden death of an infant <1 year of age that remains unexplained after a complete postmortem investigation, including autopsy, examination of the death scene, and review of the case history. SIDS, which usually occurs during sleep, is the leading cause of death in the postneonatal period (i.e., from 28 days through 364 days) and the eighth leading cause of years of potential life lost in the United States (*1*). The risk for SIDS is greatest for infants aged 1–4 months and during the cold season of the year (*2*); however, an independent contribution of the season of birth to the etiology of SIDS has not been consistently demonstrated (*3*). This report summarizes an assessment of the association between the risk for SIDS and an infant's month of birth, month of death, and age at death.

Death certificates were analyzed for 112,804 infants aged 1–11 months who died in the United States from 1980 through 1987. The underlying causes of postneonatal death were classified into two major categories: SIDS (*International Classification of Diseases, Ninth Revision* [ICD-9] rubric 798.0; n=39,379) and all other causes (n=73,425). For each infant, month of birth was derived based on month of death and age at death. The average monthly numbers of live births by race were used as approximate populations at risk. The monthly numbers of deaths were standardized to reflect the different number of days per month. Binomial regression (*4*) was used

SIDS – Continued

to fit the infant's age at death, month of death, and month of birth as categorical variables in a multivariate model predicting the risk for SIDS (*5*). Relative risks (RRs) were estimated using the first month as reference.

From 1980 through 1987, the risk for SIDS was greater for black infants than white infants and for males than females (Table 1). Among white infants, the risk for SIDS was greatest for those whose mothers resided in the West, and among black infants, for those whose mothers resided in the North Central region. Overall, autopsies were performed for 87.1% of infants who died from SIDS, although the autopsy rate ranged from 82.6% in 1980 to 91.9% in 1987. Findings in this study did not change after exclusion of infants who died from SIDS but were not autopsied.

The RR for SIDS peaked at the second completed month of life (Figure 1). This peak was statistically different from that for infants who died from other causes of postneonatal death ($p<0.05$).

The RR for SIDS was 0.5 times (95% confidence interval [CI] = 0.5–0.6) less likely for infants who died in July or August than for those who died in January (Figure 2). The risk for infant deaths from other postneonatal causes was also lower in August than in January (RR = 0.7; 95% CI = 0.7–0.8), although the magnitude of the effect was different. Postneonatal deaths showed similar January-to-July ratios for SIDS and infectious diseases (2.1 and 2.0, respectively); however, January-to-July ratios were substantially lower for birth defects and external causes (1.3 and 1.0, respectively). The same seasonal pattern held when season of death was examined according to the infant's race, sex, and age at death and according to the region of the United States where the mother resided.

Month of birth was independently associated with SIDS (likelihood ratio test = 79.0; degrees of freedom [df] = 11; $p<0.001$) after adjusting for age at death and

TABLE 1. Postneonatal sudden infant death syndrome (SIDS) rates,* by infant's race and sex and mother's region of residence – United States, 1980–1987

	Region				
Race/Sex	**Northeast**	**North Central**	**South**	**West**	**All**
White					
Male	1.0	1.4	1.2	2.0	1.4
Female	0.6	0.9	0.8	1.2	0.9
All	0.8	1.2	1.0	1.6	1.2
Black					
Male	2.6	3.2	2.2	2.8	2.5
Female	1.9	2.5	1.8	2.1	2.0
All	2.3	2.9	2.0	2.4	2.3
All races					
Male	1.2	1.7	1.5	2.0	1.6
Female	0.8	1.2	1.1	1.3	1.1
All	1.0	1.2	1.3	1.6	1.3
Autopsy rate†	926.5	896.5	761.5	947.3	870.6

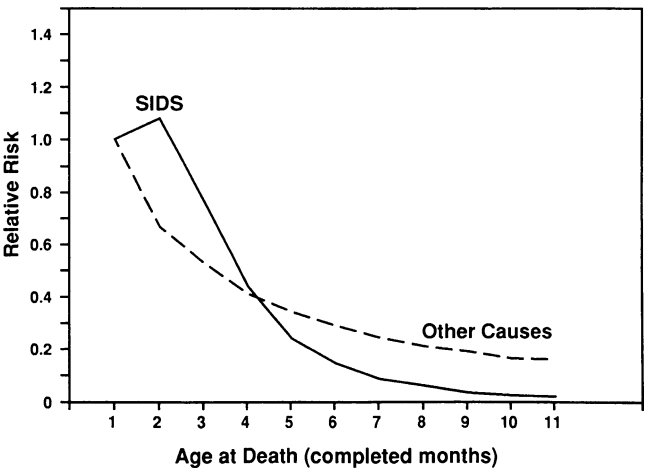
*Per 1000 live births.
†Per 1000 SIDS cases.

SIDS — Continued

month of death. Month of birth was also independently associated with other causes of postneonatal death (likelihood ratio test = 69.8; df = 11; $p<0.001$). However, the magnitude of this association was smaller than for month of death. The risk for SIDS deaths for infants born in March (RR = 0.9; 95% CI = 0.8–0.9) was statistically different from the risk for infants born in September (RR = 1.1; 95% CI = 1.0–1.1); however, the risk was not statistically different from the risk for other causes of postneonatal death.

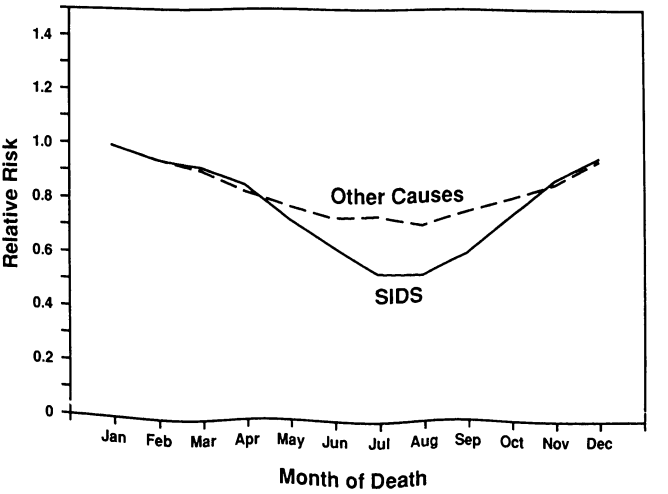
Reported by: Pregnancy and Infant Health Br, Div of Reproductive Health, Center for Chronic Disease Prevention and Health Promotion, CDC.

FIGURE 1. Relative risk* for sudden infant death syndrome (SIDS), by age at death — United States, 1980–1987



*First month as reference.

FIGURE 2. Relative risk* for sudden infant death syndrome (SIDS), by month of death — United States, 1980–1987



*January as referent month.

SIDS – Continued

Editorial Note: Since 1975, SIDS has been recognized as a specific clinical diagnosis (*6*). The high autopsy rate for SIDS cases and the distinct distribution of age at death described in this report strengthen the validity of the underlying cause of death recorded on the death certificate.

The importance of the higher risk for SIDS among white infants in the West is unknown. No other major cause of infant death has been associated with a West-to-East gradient among white infants (*7*). The higher SIDS rates among black infants in the North Central region probably reflect that region's higher mortality rates for most causes of death among black infants (*7*).

Several risk factors for SIDS have been established, including infant's age of 1–4 months, male sex, and low birth weight; medical complications of pregnancy and delivery, including multiple births; and the cold season of the year (*8,9*). However, of these, the only risk factor specific for SIDS was infant's age of 1–4 months.

A recent study that addressed the possible etiologic relationship between respiratory infections and SIDS detected an association between diarrhea and/or vomiting during the 2 weeks preceding death and the risk for SIDS (*8*). The findings of that study also indicated that breastfeeding was protective against SIDS, consistent with an effect mediated through the prevention of gastrointestinal and/or respiratory illnesses (*8*). Because nonseasonal outbreaks of infectious diseases have not been associated with increased risk for SIDS (*2,9*), some investigators have suggested that an infectious process during cold weather might precipitate SIDS in developmentally vulnerable infants.

Results of an investigation in England and Wales (*5*) also suggested a weak association between season of birth and risk for SIDS that was independent of the infant's age at death and season of death. The findings suggested that risk for SIDS and other causes of postneonatal death may be related to the periconceptional or perinatal periods. In the United States, preterm deliveries and perinatal deaths exhibited a seasonal pattern, with a peak in the fall and a trough in the spring (*10,11*), similar to the pattern documented for the month of birth among SIDS victims described in this report. Explanations for these findings include a possible seasonal association between ascending reproductive tract infections and adverse reproductive outcomes (*11*).

Although infants at high risk for SIDS cannot be identified early, several maternal, neonatal, and postneonatal factors associated with such increased risk have been identified (*8*). Parents and health-care providers should be aware of the increased risk for SIDS during the winter season in the United States.

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Epidemiologic Notes and Reports

Imported Bubonic Plague — District of Columbia

On June 16, 1990, a 47-year-old female mammologist from the United States who was traveling in the area of La Paz, Bolivia, had onset of an acute illness consisting of severe headache, chills, fever, sweating, loss of appetite, pain and swelling in her right axilla, and muscle pains in the lower back and hip. On June 17, she consulted a physician who diagnosed a respiratory infection and treated her with intramuscular ampicillin. The pain and swelling in the axilla gradually increased, and she had difficulty moving her right arm and shoulder.

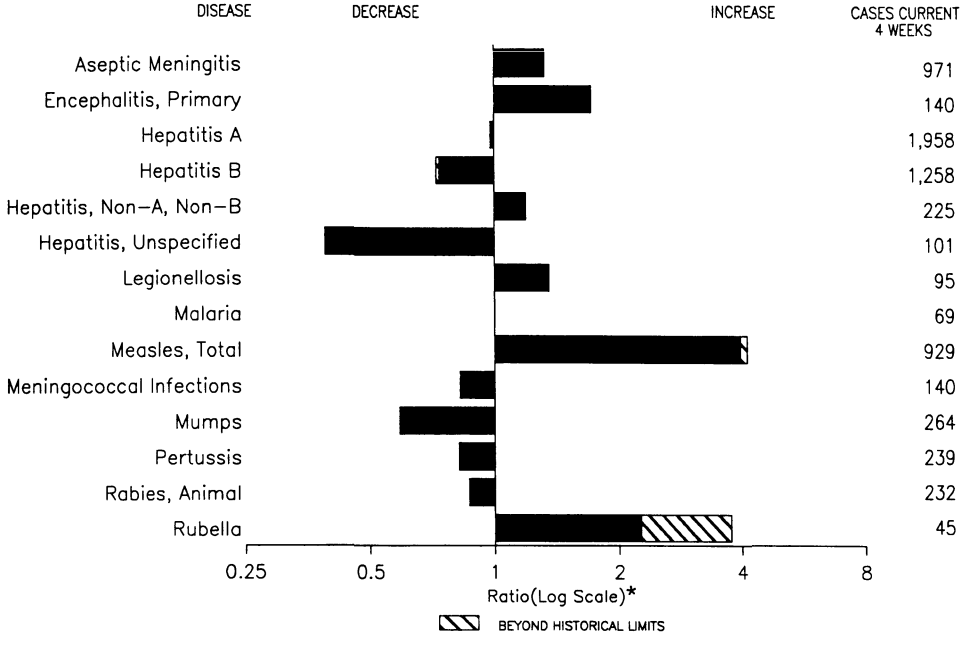
On the night of June 18–19, she traveled to her home in the District of Columbia; the pain in her right axilla had increased, and she had developed a dry cough. On June 20, she consulted a physician; on examination, her temperature was 38.5 C (101.3 F), and she had an enlarged 2.5-cm fluctuant lymph node in the right axilla with surrounding boggy edema. She was immediately hospitalized with a presumptive diagnosis of bubonic plague.

A lymph node aspiration was performed, and Gram and Wayson stains of the aspirate revealed rare bipolar staining gram-negative organisms suggestive of *Yersinia pestis*. On June 22, a culture of the aspirate was positive for *Y. pestis* organisms; the finding was subsequently confirmed by the Plague Reference Diagnostic Laboratory in CDC's Division of Vector-Borne Infectious Diseases, Center for Infectious Diseases. The patient was treated with 1 g streptomycin intramuscularly twice daily. On the third day of treatment, the patient's fever defervesced, and the enlarged axillary node began to gradually regress. The patient was discharged on June 26 and completed a 10-day course of streptomycin as an outpatient. Following treatment, she has remained well.

The patient arrived in Bolivia on May 18 and remained in the vicinity of the rural towns of Ixiamas and Apolo until June 14, when she traveled to La Paz. From May 18

(Continued on page 901)

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending December 8, 1990, 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).

TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending December 8, 1990 (49th Week)

	Cum. 1990		Cum. 1990
AIDS	39,234	Plague	2
Anthrax	-	Poliomyelitis, Paralytic*	-
Botulism: Foodborne	21	Psittacosis	102
Infant	57	Rabies, human	1
Other	6	Syphilis: civilian	45,857
Brucellosis	74	military	225
Cholera	6	Syphilis, congenital, age < 1 year	685
Congenital rubella syndrome	4	Tetanus	58
Diphtheria	4	Toxic shock syndrome	279
Encephalitis, post-infectious	89	Trichinosis	27
Gonorrhea: civilian	625,553	Tuberculosis	21,871
military	8,024	Tularemia	133
Leprosy	185	Typhoid fever	474
Leptospirosis	50	Typhus fever, tickborne (RMSF)	644
Measles: imported	1,098		
indigenous	24,630		

*Three cases of suspected poliomyelitis have been reported in 1990; five of 13 suspected cases in 1989 were confirmed and all were vaccine-associated.

TABLE II. Cases of specified notifiable diseases, United States, weeks ending December 8, 1990, and December 9, 1989 (49th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1989	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1990
UNITED STATES	39,234	10,623	1,095	89	625,553	661,910	27,281	18,824	2,488	1,564	1,236	185
NEW ENGLAND	1,361	397	28	-	17,213	19,516	581	973	92	64	73	12
Maine	56	22	5	-	190	243	10	25	4	1	5	-
N.H.	63	42	-	-	265	181	7	40	8	3	4	-
Vt.	15	37	2	-	48	64	6	45	6	1	6	-
Mass.	747	125	12	-	7,245	7,669	382	601	64	57	48	10
R.I.	82	125	1	-	1,181	1,368	51	48	-	2	10	1
Conn.	398	46	8	-	8,284	9,991	125	214	10	-	-	1
MID. ATLANTIC	11,456	998	48	8	85,241	93,812	3,506	2,351	217	89	371	20
Upstate N.Y.	1,451	540	39	1	13,767	17,413	1,149	663	82	25	138	1
N.Y. City	6,531	132	3	3	32,561	36,016	487	553	25	43	83	14
N.J.	2,292	-	1	-	13,686	13,899	423	569	41	-	49	4
Pa.	1,182	326	5	4	25,227	26,484	1,447	566	69	21	101	1
E.N. CENTRAL	2,779	3,211	283	15	120,177	125,754	2,379	2,222	420	87	316	2
Ohio	619	643	87	4	36,074	33,470	258	373	96	13	104	-
Ind.	262	346	14	9	10,633	9,318	228	393	20	15	47	-
Ill.	1,175	744	90	2	37,112	40,915	1,163	438	47	18	27	1
Mich.	521	1,081	77	-	29,179	31,954	364	614	43	41	95	1
Wis.	202	397	15	-	7,179	10,097	366	404	214	-	43	-
W.N. CENTRAL	957	569	115	2	31,948	31,480	1,716	862	144	31	73	1
Minn.	175	117	71	1	3,941	3,566	249	105	25	-	9	-
Iowa	55	108	7	-	2,118	2,630	265	52	13	4	4	-
Mo.	535	216	7	1	19,344	19,228	461	558	77	19	36	-
N. Dak.	2	25	3	-	100	146	25	5	2	2	1	-
S. Dak.	9	9	9	-	288	267	373	7	4	-	2	-
Nebr.	55	42	7	-	1,765	1,537	104	32	4	-	13	1
Kans.	126	52	11	-	4,392	4,106	239	103	19	6	8	-
S. ATLANTIC	8,438	1,887	325	29	177,969	176,983	2,960	3,748	339	232	179	6
Del.	91	48	5	-	3,050	3,099	105	97	9	2	11	-
Md.	954	255	26	1	22,379	20,701	945	521	60	14	58	3
D.C.	675	9	-	-	12,756	10,078	15	39	4	-	2	-
Va.	716	354	53	1	16,750	15,282	289	248	43	160	13	-
W. Va.	60	54	61	-	1,270	1,400	23	82	4	10	4	-
N.C.	551	248	41	-	27,887	26,954	633	997	137	-	33	1
S.C.	344	24	1	-	13,780	16,045	40	587	15	9	25	-
Ga.	1,179	301	5	1	38,245	35,065	348	478	12	9	21	-
Fla.	3,868	594	133	26	41,852	48,359	562	699	55	28	12	2
E.S. CENTRAL	986	689	63	2	54,334	53,407	387	1,412	211	9	56	1
Ky.	178	189	25	-	5,440	5,199	90	458	57	6	22	-
Tenn.	325	147	27	2	17,056	17,982	190	773	130	-	20	1
Ala.	218	240	11	-	18,200	17,133	103	162	21	1	14	-
Miss.	265	113	-	-	13,638	13,093	4	19	3	2	-	-
W.S. CENTRAL	4,236	845	80	9	66,961	67,963	3,357	2,057	120	292	50	38
Ark.	194	33	6	-	8,196	7,819	524	83	11	26	9	-
La.	656	88	11	1	11,961	14,306	199	311	5	7	14	1
Okla.	182	79	3	6	5,704	5,998	553	166	27	25	17	-
Tex.	3,204	645	60	2	41,100	39,840	2,081	1,497	77	234	10	37
MOUNTAIN	1,043	385	24	2	12,544	13,848	4,326	1,371	207	126	50	3
Mont.	15	7	-	-	208	181	163	69	7	4	6	-
Idaho	26	10	-	-	137	167	86	79	8	-	3	-
Wyo.	3	10	1	-	136	104	76	17	5	1	2	-
Colo.	329	101	5	-	3,356	3,016	324	186	47	43	9	-
N. Mex.	102	20	1	-	1,178	1,240	913	186	15	10	4	-
Ariz.	294	165	10	-	4,833	5,653	1,896	457	69	51	12	2
Utah	98	27	3	-	355	423	566	98	27	7	6	-
Nev.	176	45	4	2	2,341	3,064	302	279	29	10	8	1
PACIFIC	7,978	1,642	129	22	59,166	79,147	8,069	3,828	738	634	68	102
Wash.	573	-	7	2	4,783	6,257	1,287	579	128	34	16	9
Oreg.	315	-	-	-	2,368	2,957	775	394	56	11	-	-
Calif.	6,927	1,435	114	19	50,562	68,511	5,744	2,725	537	577	50	75
Alaska	24	109	7	-	1,000	932	189	55	7	5	-	-
Hawaii	139	98	1	1	453	490	74	75	10	7	2	18
Guam	2	3	-	-	218	154	12	4	-	11	-	1
P.R.	1,672	85	8	1	715	1,028	156	571	15	26	-	6
V.I.	11	-	-	-	406	671	1	12	-	-	-	-
Amer. Samoa	-	1	-	31	63	54	34	-	-	-	-	10
C.N.M.I.	-	-	-	-	162	89	10	9	-	15	-	5

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

TABLE II. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 8, 1990, and December 9, 1989 (49th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1990	1990	Cum. 1990	1990	Cum. 1990	Cum. 1989	Cum. 1990	1990	Cum. 1990	1990	Cum. 1990	Cum. 1989	1990	Cum. 1990	Cum. 1989
UNITED STATES	1,125	364	24,630	20	1,098	15,597	2,214	55	4,786	53	3,925	3,686	4	1,087	360
NEW ENGLAND	94	1	266	-	28	390	176	1	49	4	413	375	-	8	6
Maine	3	-	28	-	2	1	15	-	-	-	22	25	-	1	-
N.H.	4	-	-	-	9	16	14	-	11	-	66	16	-	1	4
Vt.	7	-	-	-	1	3	13	-	2	-	8	6	-	-	1
Mass.	50	1	24	-	8	106	79	1	13	4	281	295	-	2	1
R.I.	8	-	27	-	3	41	13	-	11	-	9	11	-	1	-
Conn.	22	-	187	-	5	223	42	-	12	-	27	22	-	3	-
MID. ATLANTIC	234	11	1,387	-	157	1,010	342	5	338	3	537	310	-	11	37
Upstate N.Y.	48	-	206	-	112	156	128	4	134	3	318	136	-	10	14
N.Y. City	80	-	467	-	21	122	46	-	-	-	-	17	-	-	16
N.J.	78	-	311	-	15	455	68	-	89	-	31	36	-	-	7
Pa.	28	11	403	-	9	277	100	1	115	-	188	121	-	1	-
E.N. CENTRAL	72	-	3,386	-	143	5,657	292	3	522	21	921	616	-	162	30
Ohio	9	-	551	-	3	1,551	91	-	91	19	251	139	-	131	3
Ind.	3	-	417	-	1	112	29	-	21	-	144	46	-	-	-
Ill.	34	-	1,327	-	10	3,022	80	-	186	-	302	184	-	19	23
Mich.	17	-	348	-	125	343	69	3	169	2	84	46	-	9	1
Wis.	9	-	743	-	4	629	23	-	55	-	140	201	-	3	3
W.N. CENTRAL	24	-	902	-	17	914	77	1	159	-	215	236	-	48	7
Minn.	8	-	424	-	6	25	19	-	15	-	51	66	-	42	-
Iowa	2	-	25	-	1	13	1	-	23	-	18	15	-	4	1
Mo.	12	-	99	-	1	623	33	-	59	-	109	130	-	-	4
N. Dak.	-	-	-	-	-	-	1	-	-	-	3	5	-	1	1
S. Dak.	-	-	15	-	8	-	2	-	-	-	1	4	-	-	-
Nebr.	-	-	105	-	1	113	5	-	8	-	8	8	-	1	-
Kans.	2	-	234	-	-	140	16	1	54	-	25	8	-	-	1
S. ATLANTIC	217	1	939	-	375	742	407	16	1,918	1	313	360	-	21	11
Del.	6	-	8	-	3	40	4	-	6	-	9	1	-	-	-
Md.	58	-	195	-	18	105	47	10	1,085	-	62	77	-	2	2
D.C.	10	-	16	-	7	42	11	-	39	-	15	3	-	1	-
Va.	51	-	84	-	2	22	52	-	106	-	25	36	-	1	-
W. Va.	2	-	6	-	-	53	18	-	44	1	31	33	-	-	-
N.C.	20	-	24	-	15	190	70	-	304	-	77	76	-	1	1
S.C.	3	-	4	-	-	15	26	-	64	-	5	-	-	-	-
Ga.	16	-	99	-	259	18	65	3	96	-	41	51	-	1	-
Fla.	51	1	503	-	71	257	114	3	174	-	48	83	-	15	8
E.S. CENTRAL	22	-	194	-	4	250	138	-	107	-	162	209	-	4	5
Ky.	2	-	41	-	1	44	40	-	-	-	-	1	-	1	-
Tenn.	11	U	104	U	-	147	56	U	61	U	85	119	U	3	4
Ala.	9	-	23	-	2	58	38	-	19	-	69	78	-	-	1
Miss.	-	-	26	-	1	1	4	-	27	-	8	11	-	-	-
W.S. CENTRAL	72	32	4,233	1	96	3,312	148	10	718	1	198	374	-	91	50
Ark.	4	-	18	-	31	22	18	-	140	-	22	30	-	3	-
La.	7	-	10	-	-	110	34	1	120	-	33	31	-	-	5
Okla.	10	-	174	-	-	110	16	-	106	1	63	63	-	1	1
Tex.	51	32	4,031	1†	65	3,070	80	9	352	-	80	250	-	87	44
MOUNTAIN	26	-	867	-	100	420	75	2	341	3	308	675	2	112	37
Mont.	1	-	-	-	1	13	11	-	1	-	36	40	-	15	1
Idaho	5	-	17	-	10	7	6	-	143	-	47	76	-	49	32
Wyo.	1	-	-	-	15	-	1	-	2	-	-	-	-	-	2
Colo.	3	-	91	-	47	101	23	1	26	1	113	100	-	4	1
N. Mex.	4	-	81	-	12	31	12	N	N	-	18	35	-	-	-
Ariz.	11	-	300	-	12	145	7	-	139	-	54	399	-	32	-
Utah	-	-	147	-	-	114	7	1	11	2	36	24	2	4	-
Nev.	1	-	231	-	3	9	8	-	19	-	4	1	-	8	1
PACIFIC	364	319	12,456	19	178	2,902	559	17	634	20	858	531	2	630	177
Wash.	31	55	257	19§†	87	54	72	4	61	1	217	189	1	1	-
Oreg.	19	-	169	-	44	80	68	N	N	4	111	18	-	75	4
Calif.	308	263	11,917	-	41	2,738	403	11	541	13	413	298	1	538	151
Alaska	2	-	78	-	2	1	11	1	6	-	8	1	-	-	-
Hawaii	4	1	35	-	4	32	5	1	26	2	109	25	-	16	22
Guam	3	U	-	U	1	4	4	U	5	U	1	1	U	-	-
P.R.	3	-	1,665	-	-	562	13	-	8	3	22	6	-	-	8
V.I.	-	U	21	U	3	4	-	U	14	U	-	-	U	-	-
Amer. Samoa	35	U	501	U	-	-	-	U	37	U	-	-	U	-	-
C.N.M.I.	-	U	35	U	-	-	-	U	8	U	4	-	U	-	-

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

TABLE II. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 8, 1990, and December 9, 1989 (49th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1990	Cum. 1989	Cum. 1990	Cum. 1990	Cum. 1989	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1990
UNITED STATES	45,857	41,606	279	21,871	20,226	133	474	644	4,060
NEW ENGLAND	1,564	1,603	23	582	611	4	31	20	6
Maine	7	13	7	18	25	1	-	-	-
N.H.	49	14	1	3	25	-	-	1	3
Vt.	2	1	1	10	8	-	-	-	-
Mass.	644	473	12	329	340	3	29	17	-
R.I.	24	29	1	67	64	-	-	-	-
Conn.	838	1,073	1	155	149	-	2	2	3
MID. ATLANTIC	9,008	8,621	32	5,190	4,184	2	100	30	1,024
Upstate N.Y.	850	922	11	357	354	1	19	15	204
N.Y. City	4,016	4,141	5	3,242	2,362	-	54	2	-
N.J.	1,441	1,360	-	880	815	1	23	8	370
Pa.	2,701	2,198	16	711	653	-	4	5	450
E.N. CENTRAL	3,362	1,856	66	2,097	2,047	6	34	48	168
Ohio	523	168	22	375	343	2	6	36	11
Ind.	106	58	1	218	194	1	2	2	17
Ill.	1,424	812	14	1,027	978	3	17	3	30
Mich.	983	655	29	398	411	-	8	7	51
Wis.	326	163	-	79	121	-	1	-	59
W.N. CENTRAL	486	314	33	581	518	44	5	53	619
Minn.	86	54	5	121	99	-	-	-	228
Iowa	72	35	8	66	50	-	1	2	21
Mo.	267	166	9	283	244	33	3	35	28
N. Dak.	1	6	1	19	15	-	-	-	92
S. Dak.	3	1	-	13	28	4	-	2	201
Nebr.	15	24	4	16	21	3	-	1	4
Kans.	42	28	6	63	61	4	1	13	45
S. ATLANTIC	14,492	14,665	18	4,056	4,244	5	76	288	1,114
Del.	184	206	1	34	42	-	-	1	32
Md.	1,112	799	1	330	353	-	33	19	437
D.C.	1,046	781	1	149	154	-	-	2	-
Va.	854	567	3	368	349	2	7	24	194
W. Va.	18	15	-	75	71	-	1	1	37
N.C.	1,632	1,081	4	554	558	2	4	178	8
S.C.	992	826	2	444	478	1	1	42	128
Ga.	3,679	3,669	2	694	731	-	4	18	198
Fla.	4,975	6,721	4	1,408	1,508	-	26	3	80
E.S. CENTRAL	4,329	2,930	14	1,600	1,602	8	4	80	171
Ky.	107	53	3	345	362	2	1	11	50
Tenn.	1,844	1,305	8	471	516	6	1	58	27
Ala.	1,308	876	3	466	436	-	2	11	91
Miss.	1,070	696	-	318	288	-	-	-	3
W.S. CENTRAL	7,899	5,905	12	2,583	2,456	41	22	101	437
Ark.	577	365	-	308	278	31	-	22	34
La.	2,459	1,486	1	251	333	-	1	3	31
Okla.	250	117	8	196	212	9	3	70	128
Tex.	4,613	3,937	3	1,828	1,633	1	18	6	244
MOUNTAIN	831	655	29	508	492	19	21	12	213
Mont.	-	2	-	22	16	-	-	4	45
Idaho	6	1	2	12	25	-	-	1	7
Wyo.	2	6	2	5	-	6	-	1	53
Colo.	47	61	7	28	49	6	-	1	23
N. Mex.	46	26	3	106	88	4	-	1	12
Ariz.	583	346	9	237	236	-	19	1	38
Utah	29	16	5	38	37	3	-	3	16
Nev.	118	197	1	60	41	-	2	-	19
PACIFIC	3,886	5,057	52	4,674	4,072	4	181	12	308
Wash.	312	456	4	279	229	2	23	2	-
Oreg.	128	233	2	121	131	-	4	1	1
Calif.	3,419	4,345	45	4,036	3,483	-	144	4	285
Alaska	17	8	-	58	56	2	-	-	22
Hawaii	10	15	1	180	173	-	10	5	-
Guam	2	4	-	40	83	-	-	-	-
P.R.	313	512	-	146	281	-	3	-	41
V.I.	42	10	-	4	4	-	-	-	-
Amer. Samoa	-	-	-	12	7	-	1	-	-
C.N.M.I.	4	14	-	44	29	-	4	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,* week ending December 8, 1990 (49th Week)

Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	651	463	120	40	12	16	48
Boston, Mass.	180	123	28	13	7	9	23
Bridgeport, Conn.	50	35	9	3	2	1	3
Cambridge, Mass.	16	11	4	1	-	-	-
Fall River, Mass.	22	16	6	-	-	-	-
Hartford, Conn.	63	45	11	3	-	4	2
Lowell, Mass.	18	13	4	1	-	-	2
Lynn, Mass.	10	6	4	-	-	-	-
New Bedford, Mass.	36	32	4	-	-	-	-
New Haven, Conn.	53	37	10	5	-	1	6
Providence, R.I.	40	25	12	1	2	-	4
Somerville, Mass.	7	4	1	2	-	-	1
Springfield, Mass.	51	35	10	5	1	-	4
Waterbury, Conn.	37	29	4	4	-	-	3
Worcester, Mass.	68	52	13	2	-	1	-
MID. ATLANTIC	2,436	1,595	493	241	53	54	152
Albany, N.Y.	47	30	10	5	2	-	4
Allentown, Pa.	12	10	2	-	-	-	1
Buffalo, N.Y.	100	72	17	6	2	3	7
Camden, N.J.	34	18	12	1	1	2	-
Elizabeth, N.J.	15	11	2	2	-	-	4
Erie, Pa.†	37	27	8	-	-	2	2
Jersey City, N.J.	47	34	8	4	-	1	-
N.Y. City, N.Y.	1,157	707	248	153	22	27	50
Newark, N.J.	84	46	17	10	5	6	11
Paterson, N.J.	32	17	7	5	1	2	2
Philadelphia, Pa.	407	287	69	31	13	7	30
Pittsburgh, Pa.†	111	81	21	4	4	1	8
Reading, Pa.	33	23	7	3	-	-	7
Rochester, N.Y.	120	83	27	7	1	2	12
Schenectady, N.Y.	21	15	3	3	-	-	1
Scranton, Pa.†	32	28	3	-	1	-	2
Syracuse, N.Y.	70	47	21	2	-	-	6
Trenton, N.J.	33	25	4	4	-	-	3
Utica, N.Y.	24	16	5	1	1	1	1
Yonkers, N.Y.	20	18	2	-	-	-	1
E.N. CENTRAL	2,347	1,586	443	179	58	81	121
Akron, Ohio	51	39	8	1	1	2	-
Canton, Ohio	30	25	5	-	-	-	1
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	160	113	30	5	6	6	13
Cleveland, Ohio	158	95	35	19	5	4	2
Columbus, Ohio	160	96	33	16	7	8	2
Dayton, Ohio	118	88	14	11	1	4	10
Detroit, Mich.	206	117	40	27	11	11	5
Evansville, Ind.	64	50	8	6	-	-	4
Fort Wayne, Ind.	61	49	8	2	1	1	4
Gary, Ind.	20	9	5	3	1	2	-
Grand Rapids, Mich.	46	34	10	2	-	-	7
Indianapolis, Ind.	217	141	48	15	3	10	13
Madison, Wis.	29	19	4	3	2	1	1
Milwaukee, Wis.	125	91	22	8	2	2	10
Peoria, Ill.	39	29	2	4	2	2	5
Rockford, Ill.	60	50	7	1	-	2	5
South Bend, Ind.	51	39	9	1	2	-	5
Toledo, Ohio	115	78	23	6	4	4	11
Youngstown, Ohio	73	62	7	4	-	-	7
W.N. CENTRAL	895	674	131	45	27	18	31
Des Moines, Iowa	88	61	16	8	-	3	5
Duluth, Minn.	34	25	5	1	2	1	2
Kansas City, Kans.	20	17	2	1	-	-	-
Kansas City, Mo.	116	86	19	7	1	3	2
Lincoln, Nebr.	51	38	5	3	3	2	4
Minneapolis, Minn.	215	167	36	2	7	3	11
Omaha, Nebr.	99	67	19	7	5	1	2
St. Louis, Mo.	164	124	21	10	5	4	-
St. Paul, Minn.	61	53	4	3	1	-	4
Wichita, Kans.	47	36	4	3	3	1	1

Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	≥65	45-64	25-44	1-24	<1	Total
S. ATLANTIC	1,698	1,087	323	187	54	46	95
Atlanta, Ga.	193	114	42	32	4	1	4
Baltimore, Md.	443	271	87	52	18	15	37
Charlotte, N.C.	86	60	15	8	1	2	8
Jacksonville, Fla.	156	106	35	7	5	3	11
Miami, Fla.	117	72	21	18	5	1	2
Norfolk, Va.	72	42	13	6	4	7	4
Richmond, Va.	101	70	21	7	1	2	8
Savannah, Ga.	71	56	8	6	-	1	2
St. Petersburg, Fla.	71	61	6	2	2	-	7
Tampa, Fla.	141	97	24	9	5	5	10
Washington, D.C.	205	104	46	38	8	9	2
Wilmington, Del.	42	34	5	2	1	-	-
E.S. CENTRAL	898	597	172	72	25	32	77
Birmingham, Ala.	113	69	22	13	3	6	5
Chattanooga, Tenn.	74	53	13	6	2	-	11
Knoxville, Tenn.	113	79	26	8	-	-	8
Louisville, Ky.	59	37	11	6	2	3	5
Memphis, Tenn.	271	171	53	16	15	16	28
Mobile, Ala.	90	66	13	8	1	2	8
Montgomery, Ala.§	47	33	10	4	-	-	3
Nashville, Tenn.	131	89	24	11	2	5	9
W.S. CENTRAL	1,546	918	342	170	66	50	87
Austin, Tex.	64	37	16	4	4	3	2
Baton Rouge, La.	45	28	12	1	2	2	-
Corpus Christi, Tex.	60	44	10	2	-	4	-
Dallas, Tex.	206	109	52	26	11	8	4
El Paso, Tex.	87	47	24	6	6	4	7
Fort Worth, Tex.	126	82	17	20	4	3	10
Houston, Tex.	407	213	92	66	24	12	37
Little Rock, Ark.	82	51	18	6	3	4	7
New Orleans, La.	66	34	16	10	4	2	-
San Antonio, Tex.	216	146	41	20	5	4	7
Shreveport, La.	81	55	17	5	1	3	8
Tulsa, Okla.	106	72	27	4	2	1	5
MOUNTAIN	738	512	129	59	17	21	46
Albuquerque, N. Mex.	71	50	13	5	1	2	3
Colo. Springs, Colo.	35	23	7	3	2	-	2
Denver, Colo.	115	85	15	6	2	7	9
Las Vegas, Nev.	130	80	29	15	4	2	5
Ogden, Utah	21	17	3	-	1	-	2
Phoenix, Ariz.	148	97	33	9	3	6	8
Pueblo, Colo.	32	26	5	1	-	-	3
Salt Lake City, Utah	48	28	5	9	3	3	3
Tucson, Ariz.	138	106	19	11	1	1	11
PACIFIC	1,888	1,214	345	215	54	57	118
Berkeley, Calif.	13	9	2	1	-	1	-
Fresno, Calif.§	88	59	15	6	4	4	4
Glendale, Calif.§	17	15	2	-	-	-	1
Honolulu, Hawaii	78	54	16	7	1	-	8
Long Beach, Calif.	69	45	15	5	3	1	10
Los Angeles Calif.§	411	257	79	49	18	5	16
Oakland, Calif.§	68	46	10	8	3	1	4
Pasadena, Calif.	39	23	6	6	2	2	3
Portland, Oreg.	154	103	28	10	5	8	8
Sacramento, Calif.	147	100	25	11	2	9	14
San Diego, Calif.	191	110	38	31	5	7	25
San Francisco, Calif.	160	89	27	40	-	4	5
San Jose, Calif.	166	105	33	17	3	8	13
Seattle, Wash.	155	113	20	12	6	4	1
Spokane, Wash.	52	33	8	8	1	2	3
Tacoma, Wash.	80	53	21	4	1	1	3
TOTAL	13,097††	8,646	2,498	1,208	366	375	775

*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.

Bubonic Plague — Continued

through June 13, she camped intermittently in rural areas and collected small mammals, including rice rats (*Oryzomys* sp.), for identification purposes. She reported that, because of weight restrictions, she used nembutal injections rather than chloroform for euthanizing animals (nembutal kills the animal but not fleas on the animal; chloroform kills both), and that while skinning rats she crushed some fleas with her fingers. She had received a primary plague immunization series in 1957 but had not received booster immunizations since 1971.

Reported by: MS Wolfe, MD, Traveler's Medical Service; C Tuazon, MD, R Schultz, MD, George Washington Univ Hospital, Washington, DC. Bacterial Zoonoses Br, Div of Vector-Borne Infectious Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Although human plague is endemic and occasionally epidemic in South America, Africa, and Asia, reported importations into the United States are rare. The last imported human case reported in the United States occurred in 1966 (CDC, unpublished data), and that case was not documented by cultural isolation of the organism or by positive serologic test results (*1*). Documented cases of imported plague were last recorded in 1926, in two persons arriving by ship from South America (*2*). In comparison, during the 1980s, a mean of 18 cases of plague was reported annually in persons exposed in enzootic areas of the southwestern United States (*3*).

In 1989, 770 human plague cases were reported from 11 countries (*4*), including 374 cases (49%) from Vietnam and 180 (23%) from Madagascar. Brazil reported 26 cases. Plague has been reported from Bolivia in 7 of the past 10 years (*4*), and the La Paz area in Bolivia is a recognized endemic focus (*5*).

The low frequency of imported plague in the United States may be attributed to at least two factors. First, urban plague has been controlled in most parts of the world (*6*). Second, many persons at high risk (e.g., military personnel and Peace Corps volunteers) are immunized.

Because plague vaccine boosters are necessary to maintain protective immunity, persons at continuing risk should receive booster doses at 1- to 2-year intervals (*7*). The primary series consists of three immunizations given on days 0 and 30 and 3–6 months after dose 2. The final dose of the primary series should be followed by a booster dose at 6 months and at 1 year.

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Current Trends

Update: Influenza Activity — United States and Worldwide, 1990

Influenza activity in the United States is monitored by CDC through surveillance systems developed in cooperation with state and local health departments; in addition, CDC receives reports of worldwide influenza activity from international World Health Organization (WHO) collaborating laboratories and WHO, Geneva. This report summarizes influenza activity in the United States and worldwide for April through November 1990.

United States

Sporadic cases of influenza were reported to CDC from April through September 1990. Influenza B was isolated from patients in Connecticut, New York, Oregon, and Pennsylvania; influenza A(H1N1), from patients in Alaska and California; and influenza A(H3N2), from a patient in Wisconsin.

During October (when active surveillance in the United States began), sporadic isolates of all three influenza types were reported from patients with respiratory illness: influenza type B in North Carolina and Texas; type A(H1N1) in Texas; and type A(H3N2) in Puerto Rico. During November, influenza B was isolated from patients in Massachusetts, New Jersey, New York, and Pennsylvania, and influenza type A(H3N2), from patients in New Jersey and New York. Isolates submitted to CDC are being further characterized.

During November, no outbreaks of influenza were reported in the United States; however, 13 states (Alabama, Hawaii, Kentucky, Massachusetts, Minnesota, New Hampshire, New York, North Carolina, Ohio, Rhode Island, Texas, Vermont, and West Virginia) and the District of Columbia reported sporadic occurrences of influenza-like illness. In addition, sentinel family-practice physicians from 42 states reported that from 3.5% to 3.7% of patient visits (i.e., nonepidemic levels) were for evaluation of influenza-like illnesses.

Worldwide

Since July 1990, all three influenza virus types have been isolated. Countries in the southern hemisphere reported generally low influenza-activity levels during their winter season epidemic period (June–September).

Oceania. New Zealand reported small outbreaks of influenza A(H3N2) in July and August and sporadic cases in October. During this period, Australia reported both influenza A(H3N2) and B activity.

Asia. Hong Kong reported sporadic influenza A(H1N1) and B activity during September and October. Influenza B was isolated in China during October and November.

Central/South America. Trinidad and Tobago reported influenza B activity in October. Brazil, Chile, and Panama reported influenza B activity during July and August.

Europe. Italy reported two cases of influenza A(H1N1) in November. The United Kingdom reported one case of influenza B in October. Finland reported influenza A (untyped) in November, and Czechoslovakia reported an influenza A (untyped) isolate in October and influenza B in October and November.

Canada. Alberta reported localized outbreaks of influenza B in November.

Influenza Activity — Continued

Reported by: State and territorial health department epidemiologists and state laboratory directors. WHO Collaborating Laboratories. Sentinel Physicians of the American Academy of Family Practice. Epidemiology Office and Influenza Br, Div of Viral and Rickettsial Diseases, Center for Infectious Diseases; Statistics and Surveillance Br, Div of Surveillance and Epidemiology, Epidemiology Program Office, CDC.

Editorial Note: Early season reports suggest that both influenza A and B will circulate this influenza season. Amantadine may be used in conjunction with immunization for prevention and control of influenza A (*1*); however, it is not effective against influenza B. Continued culturing of patients with influenza-like illness is needed to identify areas where influenza viruses are circulating and to determine specific types/subtypes. Information, updated weekly, is available by telephone (CDC Voice Information System [influenza update] [404] 332-4555), through the CDC Information Service on the Public Health Network electronic bulletin board, and by periodic updates in the *MMWR*. More detailed information on local influenza activity is available from state or local health departments.

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International Notes

Brazilian Purpuric Fever — Mato Grosso, Brazil

Brazilian purpuric fever (BPF) is a life-threatening pediatric infection that is preceded by conjunctivitis and caused by a specific strain of *Haemophilus influenzae* biogroup aegyptius (BPF clone*) (*1–4*). BPF was recognized during 1984 in the state of Sao Paulo, Brazil, when 10 children in a town of 20,000 persons died of an acute febrile illness associated with purpura and vascular collapse (*5,6*). Until December 1989, no cases of BPF had been reported outside of Sao Paulo and the neighboring state of Parana. This report summarizes the recognition and investigation of BPF in the state of Mato Grosso.

In December 1989, two definite† cases of BPF were identified in persons in two cities in Mato Grosso (Figure 1). In the first case, *H. influenzae* biogroup aegyptius was isolated by blood culture from a clinically ill child; in the second, a definite case

*BPF clones are defined as *H. influenzae* biogroup aegyptius strains that have the characteristics of strains that have caused BPF. These strains probably descended from a single clone with unique invasive potential.

†A definite BPF case is defined as isolation of *H. influenzae* biogroup aegyptius from a normally sterile body site or, in a child aged 3 months to 10 years, acute febrile illness, abdominal pain or vomiting, hemorrhagic skin lesions, a history of conjunctivitis in the 30 days preceding fever, no evidence of meningitis, and exclusion of meningococcal disease by specific tests. If other tests are obtained, results must be negative for other known pathogenic bacteria, and cerebrospinal fluid must contain <100 leukocytes/μL (*1*).

Brazilian Purpuric Fever — Continued

of BPF was clinically diagnosed. In addition, from August through October 1989, three possible[5] BPF cases occurred in Mato Grosso.

In January 1990, the Mato Grosso State Department of Health (MGSDH) distributed information about BPF to all hospitals and clinics in the state and conducted an educational seminar on BPF for physicians and public health workers. Health professionals were encouraged to report all suspected BPF cases to the MGSDH.

By April 1990, 26 cases (including the two definite and three possible cases identified in December) that were believed to be either definite or possible BPF had been reported. Of these, 10 cases (from six widely separated cities) were confirmed: three as definite and seven as possible BPF. The overall attack rate for the combined population of the six cities was six per 100,000 children <10 years of age. Six of the 10 children classified as definite or possible cases died; another suffered autoamputation of portions of distal toes and fingers following septic shock.

The 16 other cases could not be confirmed as either definite or possible; however, at least some of these cases are believed to have been BPF because 1) no other cause of illness was identified and 2) the BPF clone was isolated on conjunctival culture from two of the children who could not be classified as having either definite or possible BPF but who were hospitalized with an acute febrile illness.

Reported by: IM Bortolotto, Div of Epidemiologic Surveillance, Mato Grosso State Dept of Health; OA Takano, Federal Univ of Mato Grosso, Brazil. GA Silva, JCM Alves, Center for Epidemiologic Surveillance, MLC Tondella, B Mezzacapa Neto, K Irino, MCC Brandileone,

[5]A possible BPF case is defined as fever, recent conjunctivitis, and acute hemorrhagic skin lesions in a child aged 3 months to 10 years (7).

FIGURE 1. States reporting cases of Brazilian purpuric fever — Brazil, 1984–1990

Brazilian Purpuric Fever — Continued

VSD Vieira, EA Waldman, CEA Melles, Adolfo Lutz Insititute, MG Semeghini, ERSA-48 Epidemiologic Surveillance, Sao Paulo State Dept of Health, Brazil. LH Harrison, Dept of International Health, Johns Hopkins Univ, Baltimore, Maryland. Meningitis and Special Pathogens Br, Div of Bacterial and Mycotic Diseases, Center for Infectious Diseases, CDC.

Editorial Note: The recognition of BPF cases in six cities in Mato Grosso suggests that the BPF clone has a wider geographic distribution than previously considered and/or may be capable of gradual geographic spread. The epidemiology of BPF in Mato Grosso was similar to previously described BPF cases in Sao Paulo and Parana (*7*).

During the epidemiologic investigation of BPF in Mato Grosso, a randomized study was conducted to compare the efficacy of topical chloramphenicol with that of oral rifampin for conjunctival eradication of the BPF clone among children with BPF clone conjunctivitis. The results of this study suggest that oral rifampin is substantially more effective (*8*). Because the development of BPF may be related to conjunctival carriage of the BPF clone, oral rifampin may be useful for prevention of BPF among children with BPF clone conjunctivitis. In Sao Paulo and Mato Grosso, some children with conjunctivitis who have been exposed to a suspected case of BPF are being treated with oral rifampin (20 mg/kg/day for 4 days).

During April 1990, a hospital-based system of active surveillance for BPF was established in Mato Grosso to identify additional BPF cases, better define the clinical spectrum of disease, and establish a population-based incidence for BPF. Additional cases of BPF in Mato Grosso have been identified through this system. Moreover, recent definite and possible BPF cases have been reported in Sao Paulo. The occurrence of BPF in Mato Grosso and the continued occurrence of BPF in Sao Paulo emphasize the need for improved understanding of the epidemiology and pathogenesis of BPF to enable the development of effective methods for its control and prevention.

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Erratum: Vol. 39, No. 48

In the article, "Trends in Lung Cancer Incidence and Mortality—United States, 1980–1987," the second sentence of the second paragraph of the editorial note on page 882 should begin: "Since 1974 . . . ."

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