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Epidemiologic Notes and Reports

Pertussis Outbreaks — Massachusetts and Maryland, 1992

During November 1992, cases of pertussis among students in Massachusetts and Maryland were reported to the respective state health departments. This report summarizes the investigation of and approaches to controlling these outbreaks.

Massachusetts

On November 16, 1992, a 14-year-old high school student with pertussis was reported to the Massachusetts Department of Public Health (MDPH). Onset of cough was October 14, and a serologic test performed by the Massachusetts State Laboratory Institute (MSLI) indicated that the student had an elevated level of immunoglobulin G (IgG) antibody to pertussis toxin (PT). Other students in the same high school (student population: 623 in grades 9–12) and a nearby middle school (student population: 702 in grades 5–8) were also reported to have cough illness suggestive of pertussis. On November 20, MDPH initiated an investigation in these schools and the surrounding community.

MDPH staff conducted active surveillance and case investigation in the high school from November 20 through January 4 and in the middle school from November 30 through January 5. Students with a persistent cough of at least 1 week's duration were identified by school officials and were interviewed by MDPH staff.

A clinical case of pertussis was defined as cough illness lasting 14 days or longer with onset during September 1–December 31. Persons with acute cough and from whom *Bordetella pertussis* was isolated from the nasopharynx were considered to have laboratory-confirmed cases. The MSLI also provided serologic testing of IgG antibody to PT by enzyme-linked immunosorbent assay. A positive test was defined as a level ≥20.0 μg/mL in a single specimen obtained 14–56 days after onset of cough illness in a person aged ≥11 years. Of those with a positive serologic test, only persons who also met the clinical case definition were included in the analysis.

A total of 225 cases of pertussis was identified among persons within the community; of these, 54 had a nasopharyngeal culture performed within 21 days of cough onset, and six were positive. In 20 other case-patients, serologic testing for pertussis was positive. The ages of case-patients ranged from 5 months to 46 years (median: 15 years).

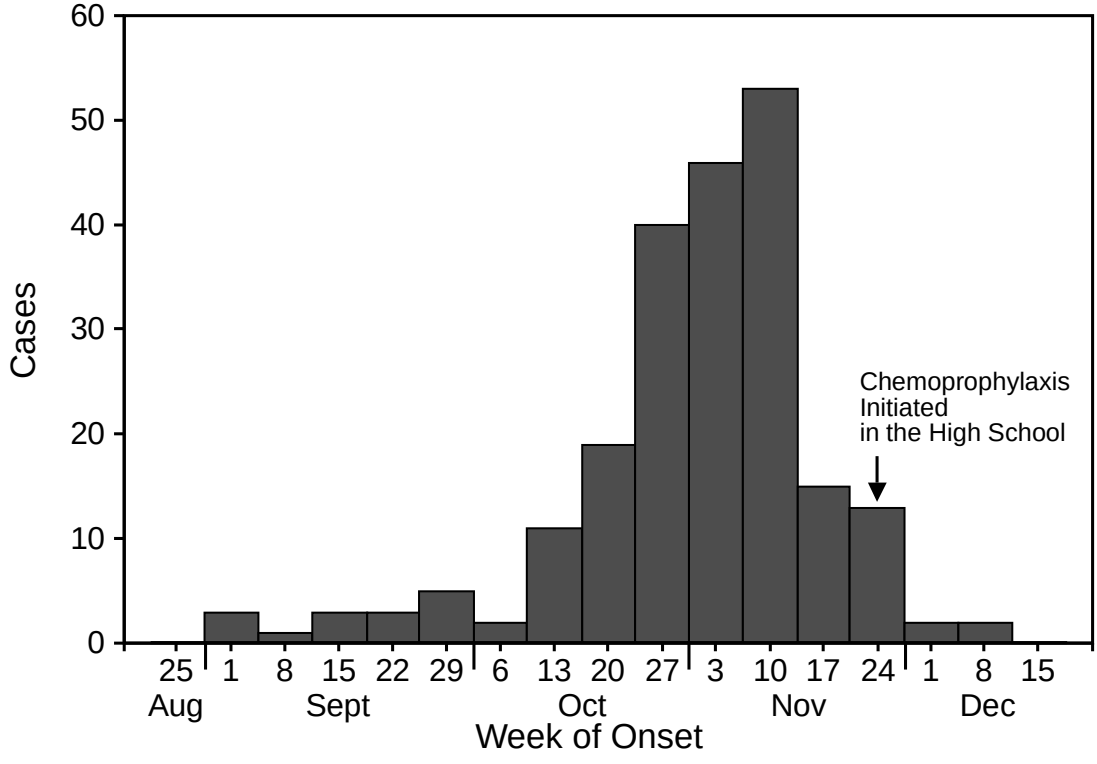
Pertussis Outbreaks — Continued

Of the 225 total case-patients, 218 (97%) were enrolled in the school system, and 214 (95%) were aged 10–19 years. Peak onset of cough occurred from October 13 through November 30 (Figure 1). Paroxysmal cough was reported in 144 (64%) patients, whooping in 79 (35%), and posttussive vomiting in 56 (25%); at least one of these three symptoms was reported in 155 (69%) patients. No patients were hospitalized; 215 (96%) reported treatment with antibiotics, usually erythromycin.

Grade-specific attack rates at the high school were 27.9% among students in the 9th grade; 26.4%, 10th; 21.6%, 11th; and 19.2%, 12th. Attack rates in the middle school were higher among students in grades 7 and 8 (12.3% and 15.6%, respectively) than among those in grades 5 and 6 (4.9% and 5.6%, respectively). Duration of cough ranged from 10 to 95 days (median: 30 days). Cough illness among high school students peaked from October 20 through November 11 and among middle school students from October 27 through November 30. Review of vaccination records indicated that 209 (96%) students had received four or more doses of pertussis-containing vaccine. Most vaccine received was manufactured by the Biologic Laboratories at MDPH.

In an attempt to prevent further transmission within the schools, the MDPH recommended erythromycin prophylaxis for all high school students and staff on November 24, and for all students in grades 7 and 8 on December 14.

FIGURE 1. Onset of cough illness meeting the pertussis case definition*, by week of onset — Massachusetts, September 1–December 15, 1992



*Cough illness lasting 14 days or longer with clinical onset during September 1–December 31 or isolation of *Bordetella pertussis* from the nasopharynx.

Pertussis Outbreaks — Continued

Maryland

On November 16, 1992, a case of culture-confirmed pertussis in a 10-year-old elementary school student was reported to the Maryland State Department of Health and Mental Hygiene; onset of cough was October 31. During November 16–18, a letter was sent to parents of children who attended 5th grade at the elementary school and/or who shared a bus with the student, and surveillance was enhanced for additional cases. A clinical case of pertussis was defined as a cough lasting 14 or more days with onset during October 1–December 15 and at least one of the following symptoms: 1) paroxysms of coughing, 2) inspiratory whoop, or 3) posttussive vomiting, without other apparent cause.

Four confirmed cases of pertussis were identified: three among students with culture-confirmed pertussis and one in their 42-year-old teacher. These four persons had contact with each other only in the school setting.

Of 11 household or close personal contacts of the four case-patients, 10 received erythromycin prophylaxis; prophylaxis was not recommended for or given to classroom or school contacts. All 22 students in the classroom had received four or more doses of pertussis vaccine before age 6 years. Surveillance at the only medical facility serving the community identified six additional persons with cough onset from November 1 through November 25. All were negative by culture and direct fluorescent antibody testing when tested 3–23 days after onset, and none were epidemiologically linked to confirmed cases.

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Editorial Note: Pertussis has rarely been documented in the United States as a cause of large outbreaks of cough illness among adolescents and young adults (*1,2*). The findings of the investigation in Massachusetts suggest that pertussis may cause outbreaks among adolescents, although a contributing role for other respiratory agents (e.g., *Mycoplasma pneumoniae*, *Chlamydia pneumoniae*, or adenoviruses) could not be excluded. Approximately half of reported pertussis cases in the United States occur among infants aged <1 year; only 12% of cases occur among persons aged 10–19 years (*3*). In comparison, in Massachusetts during 1992, 9% of reported cases occurred among infants, and 78% among persons aged 10–19 years. Possible explanations for this difference include increased awareness by clinicians and public health officials of pertussis as an etiology of cough illness among adolescents and young adults and the availability of serologic testing for diagnosis of pertussis among persons aged ≥11 years.

Laboratory diagnosis of pertussis is difficult, and pertussis often is not considered in the differential diagnosis of cough illness among adolescents and adults. Cultures for pertussis require special media and techniques and may be positive only during the first 2–3 weeks of illness (*4*). Because of the low sensitivity and variable specificity of direct fluorescent antibody testing of nasopharyngeal secretions (*5*), this method cannot be relied on as a criterion for laboratory confirmation. Except in Massachu-

Pertussis Outbreaks — Continued

setts, serologic testing for pertussis diagnosis is not widely available (*6*). The sensitivity and specificity of single convalescent serum specimens for pertussis diagnosis must be further evaluated and standardized.

Antimicrobial prophylaxis with erythromycin (or with trimethoprim-sulfamethoxazole if erythromycin is not well tolerated) is recommended for all household and other close contacts of persons with pertussis, regardless of their ages and vaccination status (*7*). Schoolwide prophylaxis has not been generally recommended; however, in Massachusetts, concerns about the high attack rate of cough illness in the high school prompted the mass use of antibiotics. Although peak onset of cough occurred 2 weeks before mass chemoprophylaxis was initiated, only three new pertussis cases were reported subsequently. In contrast, in Maryland, schoolwide transmission did not occur despite apparent transmission within a single 5th-grade classroom.

Vaccine-induced immunity may wane with time (*8*); this waning immunity may have accounted for the higher attack rates among the high school students than among the middle school students in Massachusetts. The findings of these investigations underscore that pertussis should be considered in the differential diagnosis of prolonged cough illness among older children, adolescents, and adults—regardless of reported childhood vaccination status. These groups may serve as a reservoir for spread of infection to infants and young children, in whom complications and long-term sequelae can be severe (*9*). The early recognition and treatment of pertussis among persons in older age groups may reduce transmission of infection to young or susceptible children. New acellular pertussis vaccines that are immunogenic in adults and less reactogenic than whole-cell pertussis vaccines (*10*) also require further evaluation for use among adolescent populations.

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International Notes

Fireworks-Related Injuries During the New Year Period — Naples, 1992–93

Celebrating the new year with fireworks is traditional in Italy. A national surveillance system maintained by police indicated that on New Year's Eve 1992, more than 1100 fireworks-related injuries and four deaths occurred in Italy (Ministry of the Interior, unpublished data, 1993). In many areas of the country, the use of fireworks begins several weeks before the new year and continues through the Epiphany (January 6). To characterize fireworks-related injuries in the province of Naples—an area that contains less than 6% of the total population of Italy but accounts for 15% of the reported fireworks-related injuries in the country—the Regional Health Observatory of Campania and the Italian field epidemiology training program implemented an active surveillance system in each of the 18 public emergency rooms (ERs) in the province (1992 population: 3.5 million). This report summarizes surveillance results for the new year period 1992–93.

A case was defined as an injury attributed to fireworks in a person who sought care in one of the 18 participating ERs from December 24, 1992, through January 6, 1993. Investigators abstracted data primarily from the legally required standardized reports of all injuries* entered in logs of police posts at each ER. These data included age, sex, residence, where the injury occurred, type of injury, and expected time of recovery. In addition, investigators interviewed patients directly or by telephone for detailed information on how the injury occurred.

During the study period, 351 persons with fireworks-related injuries were examined in participating ERs, representing an overall injury rate of 10.0 per 100,000 residents. Rates by district for the 21 health districts in the province varied more than eightfold, from 2.3 to 19.3 per 100,000 and were highest in low-income areas in urban Naples and on the slopes of Mount Vesuvius. One hundred fifty-three (44%) of those injured were aged ≤14 years; the rate was highest for children aged 10–12 years (45 per 100,000). The risk among males was ninefold greater than that among females.

More than three fourths (271 [77%]) of the injured persons were examined during December 31–January 1 (Figure 1). The first peak in the number of patients occurred from midnight through 3 a.m. on New Year's Day and consisted primarily of adults; the second peak occurred from noon through 3 p.m. and consisted primarily of children.

Ninety-six (27%) injured persons had multiple injuries. The most common sites of injury were hands (242 [69%]), face (95 [27%]), and eyes (90 [26%]). For the 341 persons for whom data on type of injury were available, the most common type of injuries were burns (143 [42%]) and lacerations and contusions (137 [40%]). Sixty-four (19%) sustained serious hand injuries associated with avulsion or partial or complete amputation; 39 (11%) persons incurred severe eye injuries. Nearly one third (111 [32%]) of the 351 persons injured were hospitalized.

*Police reports are required by law for all injuries resulting from causes or circumstances that could have legal ramifications (e.g., resulting from motor-vehicle crashes, gunshot wounds, and child abuse).

Fireworks — Continued

Information about the cause of the injury was obtained from 92 (83%) of the 111 persons hospitalized and from 102 (42%) of the 241 who were treated as outpatients. Use of illegal fireworks accounted for 97 (66%) of all injuries and all 38 severe hand injuries among the 147 persons on whom information on the type of fireworks was available. The type of illegal fireworks most commonly implicated was a palm-sized cherry bomb—known locally as *cipolla* (onion). Less frequently, injuries were caused by homemade explosive devices made with gunpowder obtained from other fireworks; all of the persons injured by these devices were children and adolescents. Fireworks that would be considered "Class C" legal devices (e.g., fountains, candles, rockets with sticks, and sparklers) in some areas of the United States accounted for 41 (28%) injuries.

For 67 (36%) of the 185 persons for whom data on the circumstances of injury were available, the injury occurred immediately after the fuse had been lit; 55 (30%) were associated with relighting of an unexploded firecracker; and 43 (23%) injuries resulted from firecrackers thrown by another person. Fifty-four (67%) of 81 children aged <13 years who were injured were not under adult supervision when injured.

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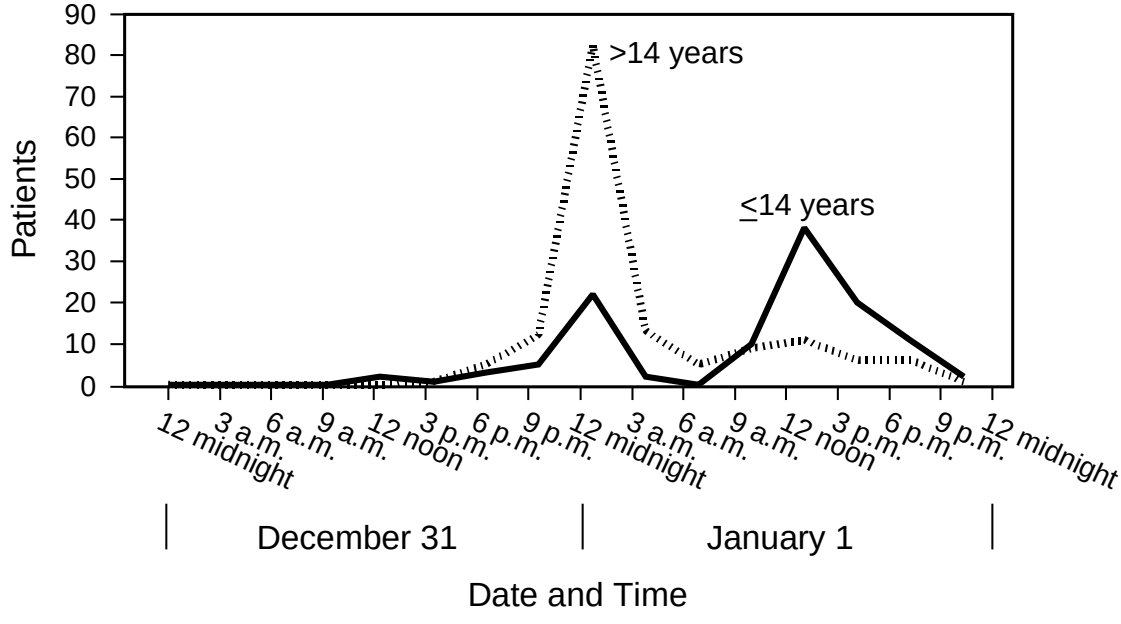
Editorial Note: The rate of fireworks-related injuries in Naples was similar to that in Seattle during the 1983 Independence Day holiday (*1*) but three times that of the U.S. national rate (3.2 per 100,000) for the 1991 Independence Day celebrations as esti-

FIGURE 1. Fireworks-related injuries, by age group and by time of patient's emergency room arrival — Naples, December 31, 1992–January 1, 1993



Fireworks — Continued

mated by the National Electronic Injury Surveillance System (NEISS) of the U.S. Consumer Product Safety Commission (*2*). Although the age distribution of persons injured in Naples was similar to that reported in the United States, the sex distribution differed: in Naples, the male:female ratio was three times greater than that in Seattle (*1*) and that reported for the NEISS (*2*) but was less than that reported in metropolitan Manila (*3*). When compared with the United States, lacerations, contusions, and serious hand trauma were more common in Naples; burns accounted for a lower percentage of injuries. The hospitalization rate in Naples was four times greater than that reported in Seattle and may have reflected more severe injuries (*1*).

Although the sale of most fireworks is banned in Italy, the black market for fireworks is large, and the legal ban is not consistently enforced. Many of the large explosive devices and other fireworks sold illegally are manufactured locally, have not been subjected to quality control, and lack the safety features (e.g., fuses of adequate length) of legal fireworks.

The findings in this report suggest three potential approaches for decreasing the occurrence of fireworks-related injuries in Naples. First, existing fireworks-related laws should be more rigorously enforced; evaluation of the impact of similar laws in the United States indicates that enforcement reduces the risk of this problem (*4*). Second, cleaning streets thoroughly early January 1 might prevent injuries that result when children relight fireworks found in the street or construct fireworks from remnants of partially exploded fireworks. Third, an education campaign should be initiated in the weeks before the new year, an approach that has helped to reduce fireworks-related injuries in the Philippines (*3*). The findings from this study have been shared in Naples with the local police, sanitation authorities, and participating hospitals; based on these findings, the Regional Observatory has initiated efforts to develop a "*Capodanno Senza Danno*" (New Year's Without Harm) program to prevent fireworks-related injuries.

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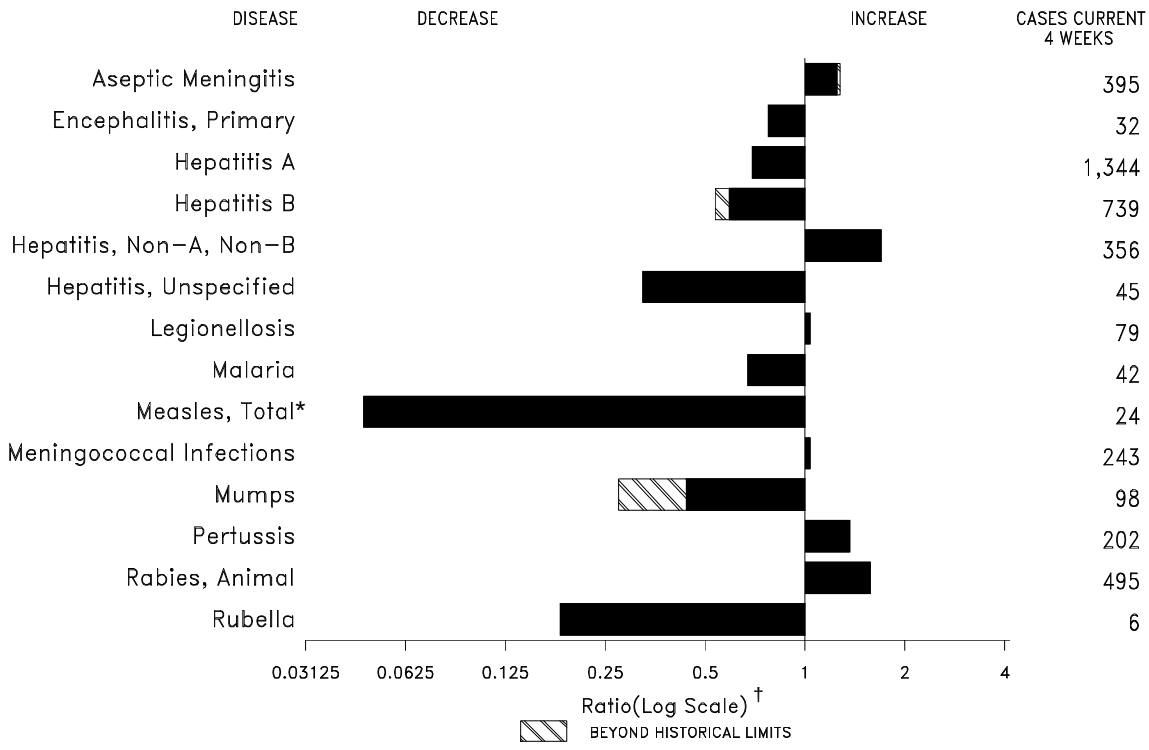
Effectiveness in Disease and Injury Prevention

Bicycle Helmet Promotion Programs — Canada, Australia, and United States

The use of bicycle helmets substantially reduces the risk for serious head injuries during bicycle-related crashes. Despite this benefit, epidemiologic data indicate a worldwide low prevalence of helmet use (*1*). Strategies to increase the use of bicycle helmets in the United States and other countries include subsidies, legislation, and education. This report summarizes information regarding three strategies to increase

(Continued on page 209)

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending March 20, 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 March 20, 1993 (11th Week)

	Cum. 1993		Cum. 1993
AIDS*	10,300	Measles: imported	7
Anthrax	-	indigenous	54
Botulism: Foodborne	1	Plague	-
Infant	11	Poliomyelitis, Paralytic§	-
Other	1	Psittacosis	15
Brucellosis	13	Rabies, human	-
Cholera	5	Syphilis, primary & secondary	5,767
Congenital rubella syndrome	1	Syphilis, congenital, age < 1 year	-
Diphtheria	-	Tetanus	4
Encephalitis, post-infectious	33	Toxic shock syndrome	53
Gonorrhea	78,450	Trichinosis	7
Haemophilus influenzae (invasive disease)†	264	Tuberculosis	3,018
Hansen Disease	23	Tularemia	13
Leptospirosis	10	Typhoid fever	59
Lyme Disease	489	Typhus fever, tickborne (RMSF)	22

*Updated monthly; last update February 27, 1993.
†Of 244 cases of known age, 95 (39%) were reported among children less than 5 years of age.
§No cases of suspected poliomyelitis have been reported in 1993; 4 cases of suspected poliomyelitis were reported in 1992; 6 of the 9 suspected cases with onset in 1991 were confirmed; all were vaccine associated.

TABLE II. Cases of selected notifiable diseases, United States, weeks ending March 20, 1993, and March 14, 1992 (11th 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	10,300	1,313	109	33	78,450	100,239	4,254	2,091	889	121	224	489
NEW ENGLAND	679	29	3	-	1,819	2,300	141	89	1	2	7	51
Maine	8	4	1	-	16	25	4	1	-	-	1	-
N.H.	47	2	-	-	10	34	2	11	-	-	-	5
Vt.	3	2	-	-	9	3	2	1	-	-	-	-
Mass.	403	17	2	-	682	848	83	67	1	2	5	16
R.I.	29	4	-	-	85	171	35	9	-	-	1	15
Conn.	189	-	-	-	1,017	1,219	15	-	-	-	-	15
MID. ATLANTIC	2,506	104	3	3	8,325	10,232	197	223	48	3	44	336
Upstate N.Y.	236	57	-	1	1,416	569	79	73	25	1	10	214
N.Y. City	1,841	5	-	-	2,602	5,171	10	1	-	-	-	-
N.J.	195	-	-	-	1,557	1,537	77	78	16	-	7	22
Pa.	234	42	3	2	2,750	2,955	31	71	7	2	27	100
E.N. CENTRAL	787	196	32	7	16,153	19,894	488	223	177	2	63	5
Ohio	137	68	15	-	5,326	5,724	88	56	20	-	37	5
Ind.	277	33	2	3	1,707	1,925	287	48	3	-	9	-
Ill.	106	25	2	-	4,895	6,528	63	20	2	1	-	-
Mich.	224	62	11	4	3,422	4,930	47	97	149	1	16	-
Wis.	43	8	2	-	803	787	3	2	3	-	1	-
W.N. CENTRAL	377	70	3	-	3,789	5,345	669	169	36	2	10	15
Minn.	209	9	2	-	320	738	87	12	1	1	-	1
Iowa	40	21	-	-	367	353	5	5	2	1	-	1
Mo.	40	18	-	-	2,202	3,092	451	135	23	-	2	3
N. Dak.	-	1	1	-	10	22	12	-	-	-	-	-
S. Dak.	17	3	-	-	36	47	8	-	-	-	-	-
Nebr.	26	1	-	-	-	8	75	4	6	-	6	-
Kans.	45	17	-	-	854	1,085	31	13	4	-	2	10
S. ATLANTIC	2,357	345	17	16	21,752	35,265	250	336	132	20	43	51
Del.	120	2	1	-	300	352	2	34	42	-	5	33
Md.	222	28	5	-	3,444	3,465	37	66	4	1	13	6
D.C.	176	9	-	-	1,421	1,799	1	6	-	-	3	1
Va.	20	42	6	3	1,362	4,121	33	24	4	11	-	5
W. Va.	3	5	4	-	154	197	-	7	9	-	-	2
N.C.	57	27	1	-	5,514	4,147	12	23	14	-	5	3
S.C.	54	2	-	-	1,471	2,610	3	8	-	-	-	-
Ga.	268	21	-	-	3,053	12,759	31	25	20	-	12	-
Fla.	1,437	209	-	13	5,033	5,815	131	143	39	8	5	1
E.S. CENTRAL	613	84	6	1	9,266	9,635	57	248	245	-	13	3
Ky.	53	39	1	1	1,043	1,045	33	23	3	-	2	-
Tenn.	196	20	4	-	2,913	3,152	12	201	239	-	9	2
Ala.	230	19	1	-	3,233	3,111	10	22	2	-	-	1
Miss.	134	6	-	-	2,077	2,327	2	2	1	-	2	-
W.S. CENTRAL	950	50	9	-	10,038	10,031	261	191	26	24	7	5
Ark.	127	7	-	-	1,231	1,920	13	14	2	-	-	1
La.	172	1	-	-	2,184	1,566	11	19	10	-	2	-
Okla.	108	-	3	-	643	1,088	22	34	11	3	5	4
Tex.	543	42	6	-	5,980	5,457	215	124	3	21	-	-
MOUNTAIN	695	75	7	3	2,205	2,414	951	128	63	26	20	2
Mont.	3	-	-	1	13	15	37	4	-	-	1	-
Idaho	20	2	-	-	23	27	60	8	-	1	1	-
Wyo.	18	-	-	-	15	8	4	5	16	-	2	2
Colo.	303	19	3	-	711	988	229	14	11	15	1	-
N. Mex.	78	11	1	2	227	203	61	56	19	-	-	-
Ariz.	31	27	2	-	765	744	310	26	6	5	6	-
Utah	77	3	1	-	62	41	239	6	8	5	2	-
Nev.	165	13	-	-	389	388	11	9	3	-	7	-
PACIFIC	1,336	360	29	3	5,103	5,123	1,240	484	161	42	17	21
Wash.	85	-	-	-	793	837	107	37	22	2	2	-
Oreg.	88	-	-	-	299	331	31	14	3	-	-	-
Calif.	1,149	343	26	3	3,818	3,676	894	426	133	39	13	21
Alaska	4	3	2	-	110	172	186	3	1	-	-	-
Hawaii	10	14	1	-	83	107	22	4	2	1	2	-
Guam	-	-	-	-	12	28	-	1	-	1	-	-
P.R.	522	13	-	-	99	15	10	43	9	-	-	-
V.I.	33	-	-	-	20	20	-	1	-	-	-	-
Amer. Samoa	-	-	-	-	7	7	5	-	-	-	-	-
C.N.M.I.	-	2	-	-	12	7	-	-	-	-	-	-

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

*Updated monthly; last update February 27, 1993.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending March 20, 1993, and March 14, 1992 (11th 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	144	7	54	2	7	385	546	25	310	46	520	227	5	21	32
NEW ENGLAND	21	2	30	-	1	7	37	-	3	8	150	19	-	1	4
Maine	-	-	-	-	-	-	3	-	-	-	3	1	-	1	-
N.H.	2	-	-	-	-	-	7	-	-	2	104	8	-	-	-
Vt.	-	2	22	-	1	-	4	-	-	5	24	-	-	-	-
Mass.	9	-	-	-	-	5	19	-	1	-	13	10	-	-	-
R.I.	1	-	-	-	-	-	-	-	1	-	1	-	-	-	4
Conn.	9	-	8	-	-	2	4	-	1	1	5	-	-	-	-
MID. ATLANTIC	18	1	1	-	-	75	55	-	32	9	88	42	1	3	3
Upstate N.Y.	10	1	1	-	-	20	26	-	12	6	35	18	1	1	2
N.Y. City	2	-	-	-	-	23	3	-	-	-	-	3	-	-	-
N.J.	3	-	-	-	-	32	7	-	1	-	11	15	-	1	1
Pa.	3	-	-	-	-	-	19	-	19	3	42	6	-	1	-
E.N. CENTRAL	12	-	-	-	-	4	81	1	63	5	82	26	-	-	5
Ohio	4	-	-	-	-	3	26	1	27	3	60	3	-	-	-
Ind.	3	-	-	-	-	-	17	-	-	-	9	8	-	-	-
Ill.	3	-	-	-	-	-	24	-	17	-	4	5	-	-	5
Mich.	2	-	-	-	-	-	13	-	19	2	8	1	-	-	-
Wis.	-	-	-	-	-	1	1	-	-	-	1	9	-	-	-
W.N. CENTRAL	1	-	-	-	-	3	29	-	12	3	22	16	-	1	1
Minn.	-	-	-	-	-	3	2	-	-	-	-	2	-	-	-
Iowa	1	-	-	-	-	-	3	-	2	-	-	1	-	-	-
Mo.	-	-	-	-	-	-	10	-	6	1	9	8	-	1	-
N. Dak.	-	-	-	-	-	-	-	-	4	-	1	2	-	-	-
S. Dak.	-	-	-	-	-	-	2	-	-	-	1	1	-	-	-
Nebr.	-	-	-	-	-	-	2	-	-	-	3	2	-	-	-
Kans.	-	-	-	-	-	-	10	-	-	2	8	-	-	-	1
S. ATLANTIC	34	3	11	-	2	33	112	8	46	8	32	27	1	2	3
Del.	1	-	-	-	-	-	6	-	1	-	-	-	-	-	-
Md.	5	-	-	-	1	3	9	-	16	-	15	10	1	1	-
D.C.	5	-	-	-	-	-	4	-	-	-	-	-	-	-	1
Va.	2	-	-	-	1	6	10	-	10	-	2	2	-	-	-
W. Va.	2	-	-	-	-	-	3	-	2	-	1	-	-	-	-
N.C.	11	-	-	-	-	3	22	2	2	8	8	6	-	-	-
S.C.	-	-	-	-	-	-	10	5	6	-	-	6	-	-	-
Ga.	2	-	-	-	-	-	32	-	-	-	3	-	-	-	-
Fla.	6	3	11	-	-	21	16	1	9	-	3	3	-	1	2
E.S. CENTRAL	3	-	-	-	-	166	36	-	12	4	21	1	-	-	-
Ky.	-	-	-	-	-	150	7	-	-	-	3	-	-	-	-
Tenn.	-	-	-	-	-	-	11	-	7	2	11	-	-	-	-
Ala.	2	-	-	-	-	-	11	-	5	2	7	1	-	-	-
Miss.	1	-	-	-	-	16	7	-	-	-	-	-	-	-	-
W.S. CENTRAL	4	-	1	-	-	62	35	5	49	1	8	8	-	1	-
Ark.	1	-	-	-	-	-	2	-	3	-	-	3	-	-	-
La.	-	-	1	-	-	-	8	-	5	1	1	-	-	-	-
Okla.	1	-	-	-	-	-	4	-	2	-	7	5	-	1	-
Tex.	2	-	-	-	-	62	21	5	39	-	-	-	-	-	-
MOUNTAIN	6	-	3	-	-	1	51	4	33	5	37	27	-	2	-
Mont.	1	-	-	-	-	-	4	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	1	-	3	1	6	4	-	1	-
Wyo.	-	-	-	-	-	1	2	-	1	-	1	-	-	-	-
Colo.	3	-	2	-	-	-	5	-	3	-	11	10	-	-	-
N. Mex.	2	-	-	-	-	-	2	N	N	-	12	9	-	-	-
Ariz.	-	-	1	-	-	-	33	1	17	-	3	-	-	-	-
Utah	-	-	-	-	-	-	2	-	3	4	4	4	-	1	-
Nev.	-	-	-	-	-	-	2	3	6	-	-	-	-	-	-
PACIFIC	45	1	8	2	4	34	110	7	60	3	80	61	3	11	16
Wash.	2	-	-	-	-	7	14	-	6	1	6	9	-	-	-
Oreg.	2	-	-	-	-	-	12	N	N	-	-	4	-	1	-
Calif.	40	1	3	-	-	18	78	6	47	2	69	46	2	6	16
Alaska	-	-	-	-	-	9	3	-	2	-	1	-	-	1	-
Hawaii	1	-	5	2†	4	-	3	1	5	-	4	2	1	3	-
Guam	-	U	-	U	-	4	-	U	4	U	-	-	U	-	-
P.R.	-	9	46	-	-	35	4	-	-	-	-	2	-	-	-
V.I.	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Amer. Samoa	-	-	1	-	-	-	-	-	-	-	2	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	-	1	5	-	-	-	-	-	-

*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 March 20, 1993, and March 14, 1992 (11th 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	5,767	7,548	53	3,018	3,344	13	59	22	1,268
NEW ENGLAND	90	154	5	32	39	-	7	2	245
Maine	2	-	-	3	-	-	-	-	-
N.H.	2	12	1	-	-	-	-	-	7
Vt.	-	-	-	-	-	-	-	-	4
Mass.	45	65	4	8	25	-	5	2	74
R.I.	2	9	-	-	-	-	-	-	-
Conn.	39	68	-	21	14	-	2	-	160
MID. ATLANTIC	476	1,008	10	638	846	-	6	2	429
Upstate N.Y.	50	56	6	34	119	-	2	-	316
N.Y. City	325	550	-	427	454	-	2	-	-
N.J.	82	148	-	95	131	-	1	2	77
Pa.	19	254	4	82	142	-	1	-	36
E.N. CENTRAL	835	1,032	15	376	370	2	5	-	6
Ohio	258	131	10	51	67	-	2	-	-
Ind.	88	46	1	35	34	1	1	-	-
Ill.	268	483	-	201	177	-	1	-	-
Mich.	142	200	4	76	80	1	1	-	-
Wis.	79	172	-	13	12	-	-	-	6
W.N. CENTRAL	329	269	5	45	86	2	-	-	65
Minn.	14	22	2	-	30	-	-	-	13
Iowa	23	5	2	5	6	-	-	-	8
Mo.	267	194	-	25	34	1	-	-	1
N. Dak.	-	1	-	-	2	-	-	-	15
S. Dak.	-	-	-	4	6	-	-	-	4
Nebr.	-	1	-	4	1	-	-	-	1
Kans.	25	46	1	7	7	1	-	-	23
S. ATLANTIC	1,653	2,082	7	511	687	-	9	4	344
Del.	25	48	-	-	9	-	-	-	30
Md.	85	166	-	77	59	-	2	-	85
D.C.	190	109	-	23	30	-	-	-	3
Va.	127	133	-	112	83	-	1	-	67
W. Va.	6	3	-	16	15	-	-	-	12
N.C.	437	498	3	73	85	-	-	3	7
S.C.	190	270	-	58	68	-	-	-	26
Ga.	286	468	-	152	152	-	1	1	94
Fla.	307	387	4	-	186	-	5	-	20
E.S. CENTRAL	724	1,027	2	185	217	3	1	3	16
Ky.	62	26	1	60	70	-	-	2	2
Tenn.	195	218	1	-	-	2	-	-	-
Ala.	186	517	-	99	85	1	1	-	14
Miss.	281	266	-	26	62	-	-	1	-
W.S. CENTRAL	1,372	1,101	1	209	268	3	1	11	99
Ark.	191	147	-	22	20	2	-	-	2
La.	501	529	-	-	7	-	1	-	-
Okla.	79	60	1	9	25	-	-	11	13
Tex.	601	365	-	178	216	1	-	-	84
MOUNTAIN	52	109	2	78	82	-	1	-	15
Mont.	-	2	-	-	-	-	-	-	2
Idaho	-	1	-	1	7	-	-	-	-
Wyo.	1	-	-	-	-	-	-	-	2
Colo.	19	20	1	-	5	-	-	-	-
N. Mex.	10	11	-	-	14	-	-	-	2
Ariz.	22	40	-	50	32	-	1	-	9
Utah	-	1	1	10	6	-	-	-	-
Nev.	-	34	-	17	18	-	-	-	-
PACIFIC	236	766	6	944	749	3	29	-	49
Wash.	11	26	-	45	43	1	1	-	-
Oreg.	18	12	-	10	15	-	-	-	-
Calif.	205	724	6	826	629	2	26	-	40
Alaska	1	1	-	6	15	-	-	-	9
Hawaii	1	3	-	57	47	-	2	-	-
Guam	-	1	-	11	10	-	-	-	-
P.R.	118	30	-	24	24	-	-	-	14
V.I.	11	11	-	2	1	-	-	-	-
Amer. Samoa	-	-	-	1	-	-	-	-	-
C.N.M.I.	-	2	-	5	5	-	-	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,* week ending March 20, 1993 (11th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	722	517	140	44	10	11	91
Boston, Mass.	192	123	49	12	2	6	29
Bridgeport, Conn.	58	41	13	3	1	-	9
Cambridge, Mass.	22	18	4	-	-	-	6
Fall River, Mass.	39	32	7	-	-	-	2
Hartford, Conn.	55	41	11	3	-	-	3
Lowell, Mass.	28	17	7	2	1	1	2
Lynn, Mass.	24	16	8	-	-	-	3
New Bedford, Mass.	32	29	2	1	-	-	5
New Haven, Conn.	55	40	9	4	1	1	7
Providence, R.I.	41	31	5	2	2	1	1
Somerville, Mass.	11	10	1	-	-	-	-
Springfield, Mass.	51	34	6	8	2	1	5
Waterbury, Conn.	43	34	6	3	-	-	6
Worcester, Mass.	71	51	12	6	1	1	13
MID. ATLANTIC	2,886	1,978	522	265	67	54	194
Albany, N.Y.	53	40	6	4	3	-	7
Allentown, Pa.	22	17	5	-	-	-	2
Buffalo, N.Y.	118	74	27	13	2	2	3
Camden, N.J.	50	36	5	4	2	3	4
Elizabeth, N.J.	24	20	3	1	-	-	6
Erie, Pa.§	39	30	8	-	1	-	4
Jersey City, N.J.	57	35	15	5	1	1	4
New York City, N.Y.	1,625	1,115	272	175	38	25	90
Newark, N.J.	U	U	U	U	U	U	U
Paterson, N.J.	U	U	U	U	U	U	U
Philadelphia, Pa.	403	245	90	39	13	16	25
Pittsburgh, Pa.§	75	48	20	5	1	1	6
Reading, Pa.	13	12	-	1	-	-	2
Rochester, N.Y.	150	117	22	5	4	2	20
Schenectady, N.Y.	28	23	3	2	-	-	1
Scranton, Pa.§	51	43	8	-	-	-	4
Syracuse, N.Y.	81	54	19	4	1	3	4
Trenton, N.J.	44	33	7	4	-	-	7
Utica, N.Y.	25	17	6	1	1	-	-
Yonkers, N.Y.	28	19	6	2	-	1	5
E.N. CENTRAL	2,379	1,523	455	217	117	67	142
Akron, Ohio	61	44	8	6	2	1	2
Canton, Ohio	56	42	9	1	2	2	3
Chicago, Ill.	461	203	102	83	61	12	19
Cincinnati, Ohio	84	53	22	7	1	1	14
Cleveland, Ohio	170	110	30	15	8	7	4
Columbus, Ohio	189	129	40	12	3	5	11
Dayton, Ohio	149	113	26	4	2	4	7
Detroit, Mich.	250	152	49	28	11	10	8
Evansville, Ind.	51	47	2	-	1	1	5
Fort Wayne, Ind.	75	47	14	7	2	5	2
Gary, Ind.	15	4	6	4	-	1	1
Grand Rapids, Mich.	57	44	8	4	-	1	4
Indianapolis, Ind.	227	148	48	16	7	8	16
Madison, Wis.	54	33	13	5	1	2	7
Milwaukee, Wis.	137	102	21	8	2	4	13
Peoria, Ill.	51	37	7	4	3	-	5
Rockford, Ill.	50	34	11	4	-	1	10
South Bend, Ind.	53	38	9	1	4	1	-
Toledo, Ohio	117	92	15	6	4	-	8
Youngstown, Ohio	72	51	15	2	3	1	3
W.N. CENTRAL	839	619	123	49	19	29	87
Des Moines, Iowa	86	70	12	1	3	-	7
Duluth, Minn.	27	23	4	-	-	-	1
Kansas City, Kans.	20	13	6	1	-	-	1
Kansas City, Mo.	117	81	16	13	3	4	5
Lincoln, Nebr.	37	28	3	4	1	1	2
Minneapolis, Minn.	203	159	28	11	2	3	25
Omaha, Nebr.	100	70	14	7	1	8	6
St. Louis, Mo.	115	77	18	9	6	5	26
St. Paul, Minn.	62	45	11	-	1	5	10
Wichita, Kans.	72	53	11	3	2	3	4
S. ATLANTIC	1,520	981	296	145	53	44	79
Atlanta, Ga.	182	103	43	21	6	9	4
Baltimore, Md.	211	134	40	23	8	6	26
Charlotte, N.C.	104	78	15	4	3	4	4
Jacksonville, Fla.	150	102	23	16	4	5	4
Miami, Fla.	162	98	30	21	10	2	-
Norfolk, Va.	87	51	22	9	2	3	4
Richmond, Va.	60	38	18	3	-	1	3
Savannah, Ga.	62	39	13	6	1	3	5
St. Petersburg, Fla.	78	63	12	1	1	1	2
Tampa, Fla.	165	109	33	12	7	4	16
Washington, D.C.	247	155	46	29	11	6	11
Wilmington, Del.	12	11	1	-	-	-	-
E.S. CENTRAL	837	570	159	68	23	17	73
Birmingham, Ala.	88	58	20	10	-	-	5
Chattanooga, Tenn.	81	56	15	6	1	3	6
Knoxville, Tenn.	82	54	15	7	4	2	10
Lexington, Ky.	78	60	10	2	5	1	10
Memphis, Tenn.	162	115	30	10	6	1	14
Mobile, Ala.	107	70	24	9	4	-	8
Montgomery, Ala.	59	38	13	6	-	2	3
Nashville, Tenn.	180	119	32	18	3	8	17
W.S. CENTRAL	1,424	886	274	165	61	33	85
Austin, Tex.	65	42	13	7	2	1	5
Baton Rouge, La.	58	35	16	4	3	-	4
Corpus Christi, Tex.	32	21	8	3	-	-	4
Dallas, Tex.	239	117	51	45	13	13	5
El Paso, Tex.	69	48	9	6	5	1	6
Ft. Worth, Tex.	113	80	16	11	6	-	5
Houston, Tex.	332	199	62	53	14	4	31
Little Rock, Ark.	68	49	10	5	2	2	5
New Orleans, La.	118	67	31	12	4	1	-
San Antonio, Tex.	179	117	34	13	8	7	12
Shreveport, La.	39	27	3	2	3	2	-
Tulsa, Okla.	112	84	21	4	1	2	8
MOUNTAIN	878	627	131	72	25	23	90
Albuquerque, N.M.	107	85	11	7	3	1	6
Colo. Springs, Colo.	54	44	4	3	2	1	14
Denver, Colo.	117	79	20	10	2	6	15
Las Vegas, Nev.	157	92	39	19	5	2	9
Ogden, Utah	22	15	5	-	1	1	4
Phoenix, Ariz.	191	141	29	14	3	4	24
Pueblo, Colo.	23	18	2	2	1	-	3
Salt Lake City, Utah	81	55	8	9	3	6	9
Tucson, Ariz.	126	98	13	8	5	2	6
PACIFIC	2,065	1,363	395	205	53	41	161
Berkeley, Calif.	21	14	4	2	1	-	3
Fresno, Calif.	91	61	16	8	2	4	13
Glendale, Calif.	16	14	2	-	-	-	1
Honolulu, Hawaii	94	72	14	6	2	-	5
Long Beach, Calif.	99	59	25	10	2	3	5
Los Angeles, Calif.	547	332	108	67	22	10	18
Pasadena, Calif.	45	33	9	1	1	1	4
Portland, Oreg.	110	77	15	12	3	3	6
Sacramento, Calif.	156	107	31	16	-	2	14
San Diego, Calif.	177	113	36	19	5	4	27
San Francisco, Calif.	161	94	37	26	2	2	3
San Jose, Calif.	161	115	30	10	2	4	30
Santa Cruz, Calif.	35	25	7	3	-	-	1
Seattle, Wash.	183	126	30	17	7	3	11
Spokane, Wash.	65	50	9	3	2	1	3
Tacoma, Wash.	104	71	22	5	2	4	17
TOTAL	13,550¶	9,064	2,495	1,230	428	319	1,002

*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.

Bicycle Helmet Promotion Programs — Continued

bicycle helmet use and the impact of implementing these approaches in Canada (helmet subsidies), Australia (legislation), and the United States (education).

Canada. To assess whether the provision of bicycle helmets at reduced cost increases the use of helmets, the Division of General Pediatrics, Hospital for Sick Children, in Toronto conducted a randomized, controlled study in Toronto from May through September 1992 (*2*). Students in three elementary schools in low-income areas were offered bicycle helmets for $10 U.S. These students were compared with students in similar low-income areas who were not offered subsidized helmets. Reported helmet ownership increased from 10% to 47% among students in the schools where subsidized helmets were offered, and reported helmet use increased from 6% to 34%. However, there were no statistically significant differences in rates of observed helmet use between these areas (3% before to 18% after the study) and the areas where no subsidy was offered (1%–21%).

Australia. In July 1990, the state of Victoria enacted laws that made bicycle helmet use compulsory. Specifically, these laws required that all persons cycling on roads, footpaths, or separate bicycle paths, and in public parks wear a securely fitted, approved bicycle helmet. During the 10 years preceding enactment of these laws, the state conducted promotional activities to increase helmet use, including educational campaigns, rebate programs, and publicity campaigns on radio and television. Direct observation surveys indicated the prevalence of helmet use among persons aged 5–11 years in Victoria increased from 26% before enactment of the law to 80% following enactment (*3*).

United States. During 1986, the Children's Bicycle Helmet Coalition in Seattle implemented a community-based education program to reduce bicycle-related head injuries among children by promoting the use of helmets (*4*). Components of this program included public and physician education, school safety programs, an outreach campaign for low-income populations, extensive media coverage, and informational brochures in monthly insurance and utility bills. An evaluation of the impact of this program indicated that, from 1986 through 1992, helmet use among 5–15-year-old children increased from 5% to 38% (*4*). In addition, the number of children in this age group treated for bicycle-related head injuries at the regional trauma center in Seattle decreased 50% from 1990 through 1992.

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Editorial Note: Among the 96 million cyclists in the United States (*5*), approximately 950 fatalities and 580,000 emergency department visits occur annually as a result of bicycle injuries (*6*). Approximately 62% of these deaths and 32% of the injuries involve head trauma (*6*). Helmets are effective in reducing head injuries: the estimated risk for head injuries among persons not using helmets is 3.9–6.7 times greater than that among persons using helmets (*7*). However, fewer than 2% of U.S. children and fewer than 10% of all U.S. bicyclists wear helmets (*8*).

The Injury Prevention Program of the World Health Organization is coordinating a worldwide initiative to increase the use of motorcycle and bicycle helmets (*9*). The initiative focuses on three approaches: developing and testing helmets, promoting

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helmet use, and evaluating helmet-use promotion strategies. During the Second World Conference on Injury Control, to be held May 20–23 in Atlanta, scientists and public health professionals will focus on promoting and evaluating helmet use.

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Tuberculosis Prevention in Drug-Treatment Centers and Correctional Facilities — Selected U.S. Sites, 1990–1991

The risk for tuberculosis (TB) is higher among injecting-drug users (IDUs) and correctional facility (CF) inmates than in the general population because a greater proportion are infected with TB and are at higher risk for human immunodeficiency virus (HIV) infection (*1,2*). Because of this higher risk and because of the potential for transmission of TB in CFs, prevention of TB among persons in these populations is a high priority (*1,2*). This report summarizes the results of a demonstration project during 1990–1991 to evaluate the feasibility of on-site screening for TB infection among drug-treatment center (DTC) clients and CF inmates and providing preventive therapy to reduce the risk for TB among persons with TB infection.

In 1989, CDC awarded funds to 25 state and city health departments* to support tuberculin skin testing and administration of preventive therapy, in conjunction with HIV counseling and testing, in DTCs and CFs. Health departments collaborated with drug-abuse agencies and CFs to select project sites and to develop plans for implementing project activities. Staff at the DTCs and CFs typically 1) performed Mantoux tuberculin skin tests, 2) performed or arranged for HIV counseling and testing, 3) either referred persons with positive tuberculin reactions for evaluation (DTCs) or performed evaluations on site (CFs), 4) provided directly observed isoniazid (INH) preventive therapy to infected inmates and clients, and 5) monitored inmates and clients for toxicity to INH. Health department TB programs provided overall project planning, staff training in skin testing and preventive therapy at project sites, evaluation of persons with positive skin test reactions for active TB, evaluation of INH preventive therapy, and

*Selection of these 25 sites was based on high levels of reported acquired immunodeficiency syndrome and TB cases. The sites included Baltimore, California, Chicago, Connecticut, Detroit, District of Columbia, Florida, Georgia, Houston/Harris County, Los Angeles County, Louisiana, Maryland, Massachusetts, Missouri, New Jersey, New York, New York City, Ohio, Pennsylvania, Philadelphia, Puerto Rico, San Francisco, Texas, Virginia, and Washington.

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evaluation of the project. CDC developed a computerized data management system consisting of a standardized data collection workform and data base software.

Data were collected from the time each facility began screening, with most beginning sometime in 1990. Provisional data from 23 areas were available for 40,823 persons enrolled in the target facilities from program initiation through December 1991 (Table 1). Of these, 30,808 (75.5%) were from 114 DTCs and 10,015 (24.5%) were from six CFs. Of the 39,060 (95.7%) persons enrolled and eligible for screening (i.e., all those without a documented history of TB infection), 38,350 (98.2%) received a tuberculin skin test; of these, 36,990 (96.5%) were read. Of those skin tested and who had the tests read in DTCs, 2645 (9.7%) had a reaction of ≥5 mm; in CFs, 2214 (22.7%). When persons with previously documented Mantoux reactions were included, 4167 (13.3%) were positive in DTCs, and 2455 (24.6%) in CFs.

HIV serostatus was recorded for 25.5% of all clients, of whom 20.8% were reported as positive. In 34.9%, the HIV-antibody test was completed, but the results have not yet been shared with the TB programs primarily because of confidentiality concerns. For 8.1%, the clients declined the HIV test, and for 31.4%, the HIV test was not offered. Clients whose last HIV test was negative and performed more than 3 months before the TB screening were counted in the "not offered" category. Of the 9750 persons for whom both the HIV and tuberculin skin test status were known, 1765 (22.4%) of 7880 who were HIV seronegative had a ≥5 mm reaction to the skin test, compared with 354 (18.9%) of 1516 who were HIV seropositive (Mantel-Haenszel chi-square test=10.7, $p<0.002$).

Of 6359 persons (3898 in DTCs and 2461 in CFs) with positive skin tests and no prior therapy (i.e., 96.0% of those with positive skin tests), 5812 (91.4%) were referred for follow-up medical evaluation (3576 [91.7%] in DTCs and 2236 [90.9%] in CFs). As of June 1992, 2497 (69.8%) of those from DTCs and 1905 (85.2%) of those from CFs were evaluated.

This project identified 26 previously unreported active TB cases and 145 persons with suspected TB disease. All of the 21 persons with active TB cases and with known HIV status were HIV seropositive. Of the 124 persons with suspected TB for whom HIV status was known, 61 (49.2%) were HIV seropositive.

TABLE 1. Initial tuberculin skin testing results — tuberculosis prevention project, selected U.S. sites, 1990–1991

	Drug-treatment centers		Correctional facilities		Total	
Status	**No.**	**(%)**	**No.**	**(%)**	**No.**	**(%)**
Total enrolled	**30,808**		**10,015**		**40,823**	
Eligible for screening	29,286		9,774		**39,060**	
Tested*	28,586	(97.6)	9,764	(99.9)	**38,350**	**(98.2)**
Read†	27,257	(95.4)	9,733	(99.7)	**36,990**	**(96.5)**
Positive§	2,645	(9.7)	2,214	(22.7)	**4,859**	**(13.1)**
Prevalence¶	4,167	(13.3)	2,455	(24.6)	**6,622**	**(16.0)**

*Percentage tested among persons eligible.
†Percentage read among persons tested.
§Percentage positive (i.e., ≥5 mm induration) among tests read.
¶Includes persons with documentation of prior positive Mantoux skin test reaction.

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Excluding persons with medical contraindications, 2859 (88.4%) eligible persons were placed on preventive therapy—1386 (84.0%) in DTCs and 1473 (92.9%) in CFs. Of the 1726 persons eligible for completion and for whom a final disposition has been received, 1438 (83.3%) completed a recommended course of preventive therapy: 442 (65.9%) of 671 in DTCs and 996 (94.4%) of 1055 in CFs. Of those eligible for completion in DTCs, 120 (17.9%) were lost to supervision, 90 (13.4%) refused to complete therapy, and 19 (2.8%) did not complete therapy for other reasons.

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

Editorial Note: Approximately 540,000 inmates are discharged each year from federal and state correctional institutions (*3*), and an estimated 645,000 clients (including approximately 265,000 IDUs) are discharged from DTCs (*4*). Although the facilities in this project may not be representative of DTCs and CFs nationwide, the tuberculin skin testing results suggest that approximately 87,000 (13.3%) of the DTC clients and 133,000 (24.6%) of federal and state correctional institution inmates may be discharged annually with latent TB infection. Many of these persons have a history of injecting-drug use and either have or are at risk for HIV infection. These persons are at increased risk for developing active TB and transmitting the disease to others (*5*).

In this report, the prevalence of skin-test positivity was higher among HIV-seronegative persons, suggesting that HIV-induced anergy might be obscuring the true prevalence of tuberculin positivity among those clients tested—especially among IDUs in the northeastern United States, among whom HIV-seroprevalence levels of up to 49% have been reported in DTCs (*6*). Anergy status was not collected in this project; however, CDC recommends that persons with known or suspected HIV infection be evaluated for anergy by testing with at least two companion antigens (e.g., tetanus toxoid, mumps, or *Candida*). Anergic, tuberculin-negative persons from populations with a high prevalence of TB also should be considered for preventive therapy (*7*). Since 1989, CDC has recommended 12 months of INH preventive therapy for all HIV-positive or HIV-status-unknown IDUs with ≥5 mm of induration to the Mantoux tuberculin skin test and 6–12 months for all HIV-negative IDUs with ≥10 mm of induration (*8*).

In a high proportion of clients, the HIV test either was not offered or was completed but the results not shared with the TB program. All of the new active TB cases and nearly half of the TB suspects identified with known HIV status were HIV seropositive, reinforcing the importance of HIV infection as a risk factor for the development of TB. Because of the high risk for HIV infection in persons in DTCs and CFs, and the need for longer preventive therapy among HIV-infected persons, HIV counseling and testing should be offered to all persons in these settings. Procedures are being considered to enable sharing of HIV results with TB programs while protecting client confidentiality.

The highest priority in TB control and elimination is the identification and effective treatment of cases of active TB and the follow-up of persons exposed to infectious persons. The next priority is providing screening and preventive therapy for persons at high risk for TB. Efforts to screen populations at high risk for TB and ensure adherence to preventive therapy—especially if such persons are not in a supervised setting—are subject to substantial logistical impediments. This project demonstrated that both DTCs and CFs succeeded in ensuring persons received skin testing and had the tests read. However, efforts in CFs were more successful than DTCs in ensuring

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that persons with tuberculin reactions were evaluated. Some project areas reported difficulty in scheduling appointments for DTC clients in health department TB clinics because of heavy existing caseloads. Because of the extensive length of preventive therapy, substantial data on completion rates are not yet available, especially for DTCs. Nonetheless, data indicate that CFs were especially successful in ensuring persons completed preventive therapy. Although lower, the completion rate for DTCs was similar to the 68.8% rate that U.S. health departments have reported achieving among close contacts of active TB cases (CDC, unpublished data, 1991). For evaluation of this program, future analysis should include assessment of the proportion of persons with tuberculous infection who develop active TB after preventive therapy in relation to HIV serostatus and characterization of the facilities that were most successful in ensuring high-risk persons completed preventive therapy.

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Notices to Readers

Publication of Draft Guidelines for Prevention of Transmission of HIV through Transplantation of Human Tissue and Organs

CDC has published *Draft USPHS Guidelines for Prevention of Transmission of HIV through Transplantation of Human Tissue and Organs*. The draft document is available for public comment from the CDC National AIDS Clearinghouse, P.O. Box 6003, Rockville, MD 20849-6003; telephone (800) 458-5231. Written comments should be sent by May 17, 1993, to the Technical Information Activity, Division of HIV/AIDS, National Center for Infectious Diseases, CDC, Mailstop E-49, 1600 Clifton Road, NE, Atlanta, GA 30333; fax (404) 639-2029.

Notices to Readers — Continued

Second World Conference on Injury Control

CDC and 12 public and private organizations will cosponsor the Second World Conference on Injury Control during May 20–23, 1993, in Atlanta. The theme of the conference is "Injury Control—What Works." The conference will address such issues as transport injury, occupational injury, home and leisure injury, intentional injury, and acute-care and rehabilitation systems. Sessions will highlight the injury prevention and control needs of children and the elderly, the development of safe communities, and injuries among persons living in developing countries.

Additional information about the conference is available from the Association for the Advancement of Automotive Medicine, 2340 Des Plaines Avenue, Suite 106, Des Plaines, IL 60018; telephone (708) 390-8927; fax (708) 390-9962.

Quarterly Table Reporting Alcohol Involvement in Fatal Motor-Vehicle Crashes

The following table reports alcohol involvement in fatal motor-vehicle crashes in the United States for January–March 1992. This table, published quarterly in *MMWR*, focuses attention on the impact of alcohol use on highway safety.

A fatal crash is considered alcohol-related by the National Highway Traffic Safety Administration (NHTSA) if either a driver or nonoccupant (e.g., pedestrian) had a blood alcohol concentration (BAC) of ≥0.01 g/dL in a police-reported traffic crash. Those with a BAC ≥0.10 g/dL (the legal level of intoxication in most states) are considered intoxicated. Because BACs are not available for all persons in fatal crashes, NHTSA estimates the number of alcohol-related traffic fatalities based on a discriminant analysis of information from all cases for which driver or nonoccupant BAC data are available. Seasonal trends may be associated with these data.

Estimated number and percentage of total traffic fatalities* and drivers involved in fatal crashes, by age and blood alcohol concentration (BAC) level — United States, January–March 1992

Age group (yrs)	No. fatalities§	Fatalities, by BAC† BAC=0.00 No.	(%)	0.01%≤BAC≤0.09% No.	(%)	BAC≥0.10% No.	(%)
0–14	503	389	(77.3)	38	(7.6)	76	(15.1)
15–20	1,184	679	(57.3)	132	(11.1)	373	(31.5)
21–24	877	336	(38.3)	100	(11.4)	441	(50.3)
25–34	1,681	584	(34.8)	140	(8.3)	957	(56.9)
35–64	2,579	1,334	(51.7)	198	(7.7)	1,047	(40.6)
≥65	1,416	1,174	(82.9)	79	(5.5)	164	(11.6)
Total	**8,240**	**4,495**	**(54.6)**	**687**	**(8.3)**	**3,057**	**(37.1)**

Age group (yrs)	No. drivers§	Drivers,¶ by BAC** BAC=0.00 No.	(%)	0.01%≤BAC≤0.09% No.	(%)	BAC≥0.10% No.	(%)
0–14††	24	21	(87.8)	2	(6.5)	1	(5.7)
15–20	1,466	1,065	(72.7)	134	(9.1)	267	(18.2)
21–24	1,322	792	(59.9)	124	(9.3)	406	(30.7)
25–34	2,745	1,692	(61.6)	178	(6.5)	875	(31.9)
35–64	4,026	3,048	(75.7)	189	(4.7)	788	(19.6)
≥65	1,189	1,083	(91.1)	37	(3.1)	69	(5.8)
Total	**10,772**	**7,703**	**(71.5)**	**663**	**(6.2)**	**2,407**	**(22.3)**

*Fatalities include all occupants and nonoccupants who died within 30 days of a motor-vehicle crash on a public roadway.
†BAC distributions are estimates for drivers and nonoccupants involved in fatal crashes. Numbers of fatalities are rounded to the nearest whole number.
§Includes only those for whom age is known.
¶Driver may or may not have been killed.
**BAC distributions are estimates for drivers involved in fatal crashes. Numbers of drivers are rounded to the nearest whole number.
††Although usually too young to legally drive, persons in this age group are included for completeness of the data set.

Source: Fatal Accident Reporting System, National Highway Traffic Safety Administration.

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.

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