CENTERS FOR DISEASE CONTROL

November 11, 1983 / Vol. 32 / No. 44

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Perspectives in Disease Prevention and Health Promotion

Alcohol and Fatal Injuries — Fulton County, Georgia, 1982

Because homicides, suicides, and fatal injuries are among the leading causes of premature loss of life in the United States (*1*), a surveillance system was recently initiated in several counties in Georgia to identify the extent to which factors such as alcohol and drug abuse are associated with fatal injuries. As an initial effort, a retrospective survey was conducted to ascertain the blood alcohol content (BAC) of all victims of fatal injury events that occurred in Fulton County* in 1982.

Investigators' reports from the Fulton County Medical Examiner's office were reviewed for all persons classified as homicides, suicides, or victims of unintentional fatal injuries. Ninety-five percent of victims who died within 6 hours of the injury event had BACs obtained by the medical examiner and were included in data analysis. (BAC has been shown less likely to be obtained and if obtained, less meaningful, when death occurs more than 6 hours after the injury event [*2,3*].) The Georgia Department of Public Safety's accident report forms were also reviewed to obtain information on the BACs of drivers involved in motor vehicle accidents (MVAs) that resulted in fatal injuries to pedestrians or vehicle occupants.

Sixty-six (51%) of 129 homicide victims who died within 6 hours of injury were legally intoxicated (BAC 0.1 g% or greater) at the time of death (Figure 1); 80% were male, and 82% were black. Seventy-seven percent of black males and 71% of white males had been drinking before the injury event (BAC greater than 0). Of those who committed suicide, 18 (20%) of the 90 victims were legally intoxicated at the time of death (Figure 2), and 34 (38%) had been drinking. Sixty-five percent of the 90 victims were white males.

*Fulton County encompasses most of the city of Atlanta, as well as a suburban area to the north of the city. The Atlanta Regional Council projected the county's population at 599,100 in 1982; approximately 48% of the population is white and 51% black.

Alcohol and Fatal Injuries – Continued

FIGURE 1. Alcohol use among homicide victims, by race and sex — Fulton County, Georgia, 1982

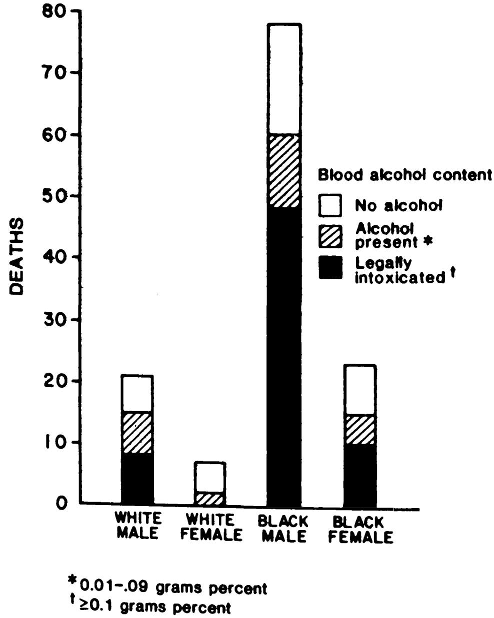
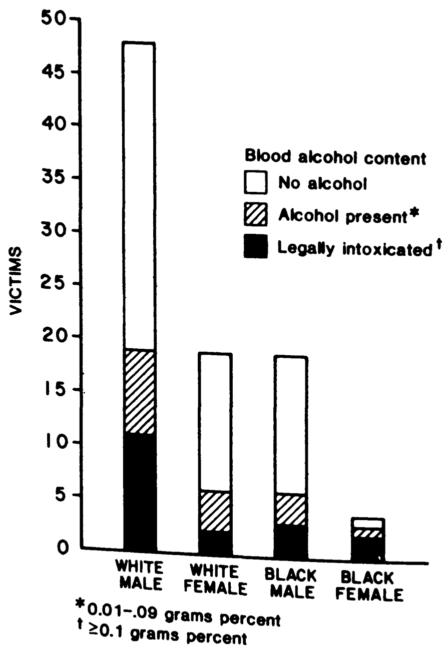


FIGURE 2. Alcohol use among suicide victims, by race and sex — Fulton County, Georgia, 1982



Alcohol and Fatal Injuries — Continued

In 1982, 78 Fulton County MVA victims died within 6 hours of the event. At least one driver was legally intoxicated in 39 (85%) of 46 MVAs in which drivers' BACs were collected (Figure 3), and 42 (91%) involved drivers who had been drinking. Thirty-two (82%) of legally intoxicated drivers were at least 25 years old, and 30 (77%) were male. Six (38%) of 16 pedestrian victims were legally intoxicated.

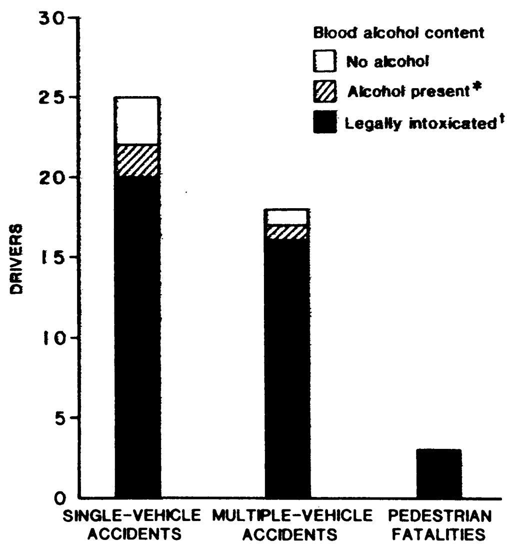
For nonvehicular accidents (NVA), the data base is small; six of 10 victims of fire, eight (57%) of 14 victims of accidental drug ingestion or overdose, three (27%) of 11 victims of carbon monoxide poisoning, and five (36%) of 14 victims of drowning were legally intoxicated. Overall, for NVAs, 27 (38%) of 71 victims were legally intoxicated, and 34 (48%) had been drinking.

Reported by Georgia Epidemiology Report *(Sept. 1983), RK Sikes, DVM, State Epidemiologist, Georgia Dept of Human Resources; Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office, CDC.*

Editorial Note: The significance of alcohol as a contributor to fatal injuries may vary from place to place and over time. These data suggest that, in Fulton County in 1982, alcohol abuse may have factored in many of the fatal injuries, both intentional and unintentional. The striking differences in the frequencies of homicide and suicide between blacks and whites may reflect differences in the socioeconomic status of these groups in Fulton County.

A major 1990 Health Objective for the Nation is reduction of the adverse health consequences associated with alcohol abuse, which includes injury and death to others as well as to the individual who misuses alcohol (e.g., MVAs, fires, carbon monoxide poisonings) (*4*). At a local level, ongoing surveillance of alcohol-related fatal injuries can increase public awareness of the extent of the problem and provide mental- and physical-health programs, law-

FIGURE 3. Blood alcohol content of drivers involved in fatal motor-vehicle accidents — Fulton County, Georgia, 1982



*0.01–.09 grams percent

† ≥0.1 grams percent

Alcohol and Fatal Injuries — Continued

enforcement agencies, and policymakers with an increased ability to plan intervention strategies and to monitor the effectiveness of programs designed to deter alcohol misuse.

References

1. CDC. Premature death—United States. MMWR 1983;32:118-9.
2. Adelson L. The pathology of homicide: a vade mecum for pathologist, prosecutor and defense counsel. Springfield, Illinois: Charles C. Thomas, 1974:883-918.
3. Haddon W Jr, Valien P, McCarroll JR, Umberger CJ. A controlled investigation of the characteristics of adult pedestrians fatally injured by motor vehicles in Manhattan. J Chron Dis 1961;14:655-78.
4. U.S. Public Health Service. Promoting health/preventing disease: objectives for the nation. U.S. Public Health Service, 1980.

Epidemiologic Notes and Reports

Gastrointestinal Illness among Scuba Divers — New York City

In July 1982, an outbreak of gastrointestinal illness occurred among New York City's Police and Fire Departments' scuba divers following dives in sewage-contaminated waters. Although the causes of illness in many divers were not identified, gastrointestinal parasites were found in 12 divers.

The Fire Department developed a scuba diving program in early 1982 to train 40 firefighters in two rescue companies to respond to pier fires and water-related emergencies. In July 1982, one company trained primarily along the Hudson River at 47th Street and the other mainly at the Brooklyn Navy Yard. The Police Department diving team, which has been in operation since the mid-1960s with five divers, expanded to 16 divers in January 1982. Besides responding to water-related emergencies, police divers explore river beds for evidence and help recover lost or stolen property.

The divers generally use standard scuba masks and wet suits. Despite this protective gear, they report ingesting small quantities of polluted water while swimming at the surface or while using mouthpieces that have dangled in the water before use.

A questionnaire survey of 55 of the Police and Fire Departments' divers was administered in July 1982. Divers ranged in age from 21 to 52 years (mean 35.5 years). All were male. Approximately 95% were white and the others black or Hispanic. The survey revealed 21 cases of recent or current gastrointestinal illness, defined as 2 or more days of any of the following: (1) diarrhea (watery stool), (2) crampy abdominal pain, or (3) change in stool consistency. Three cases developed in the spring of 1982, and the remaining 18 cases in July 1982.

Twenty symptomatic divers had stools cultured for bacterial pathogens, and all 55 divers had purged stools examined for parasites. No specimens were obtained for viral studies. One bacterial culture was positive for *Campylobacter.* The purged stool examinations revealed 12 cases of gastrointestinal parasites—five of *Entamoeba histolytica* and seven of *Giardia lamblia.*

To determine if diving in polluted water was an important risk factor for gastrointestinal illness and parasitic infection, investigators questioned and examined a comparison group of

Gastrointestinal Illness – Continued

116 nondiving firefighters. Study participants submitted purged stool specimens. The incidence of gastrointestinal illness in July 1982 among the nondivers was estimated by reviewing sick-leave records.

During July, the divers had developed gastrointestinal illness more than four times as frequently as the nondiving firefighters. When symptomatic firefighters were questioned about possible common sources of exposure, such as weddings, picnics, camping trips, or other group activities, none except scuba diving was identified. Neither travel nor sexual orientation, two additional risk factors for parasites, differed among divers with parasites, uninfected divers, and nondiving firefighters.

Twenty-three nondiving firefighters had purged stools examined for parasites; none had *G. lamblia* or *E. histolytica*.

At the Fire Department training sites along the Hudson and East Rivers, the New York City Department of Health tested the water for total coliforms, pathogenic bacteria (*Salmonella, Shigella, Campylobacter,* and *Yersinia*) and parasites. Relatively few pathogens were found in these highly polluted waters. However, examination of river water utilizing a high-volume water filter revealed numerous parasites including *G. lamblia* and *E. histolytica*-like cysts.

Reported by A Goodman, MD, S Schultz, MD, E Bell, E Gumbs, MD, S Friedman, MD, New York City Dept of Health, C Robinson, MD, New York City Police Dept, C Jones, MD, New York City Fire Dept; C Hibler, PhD, Dept of Pathology, Colorado State University.

Editorial Note: In recent years, gastrointestinal illness has been reported to be associated with swimming in polluted water (*1*). The causes of these infections have been somewhat obscure. In some cases, symptoms were probably caused by viruses; in others, bacterial agents, such as *Shigella*, have been isolated. The majority of cases, however, have remained undiagnosed.

More than 188,000,000 gallons of raw sewage are discharged daily into the Hudson and East Rivers of New York City. Swimming is limited by the Department of Health to beaches monitored regularly for fecal contamination; thus, swimming in New York City's coastal waters has never been considered an important risk factor for illness.

The results of this investigation provide strong evidence that scuba diving in sewage-contaminated water is associated with gastrointestinal illness. The data suggest that parasites are an important cause of illness and that the major health hazard arises from ingesting sewage-contaminted water. Police and Fire Department scuba divers now practice in waters designated acceptable by the Department of Health.

Advanced diving equipment, such as high-pressure masks, wireless radio devices, and dry suits, should be used to minimize exposure; a recent study of various types of diving suits found that a dry suit in combination with a full-face mask, afforded the best protection against microbial contamination (*2*). The National Oceanic and Atmospheric Administration is continuing this study.

Routine health surveillance of divers also may minimize the consequences of diving in contaminated waters. Divers should be questioned as to the nature of any illness requiring absence from work. Informed police and fire health officials could then appropriately advise the divers' personal physicians as to the possibility of water-related infection. Worker education may serve the same purpose.

Reference

1. CDC. Water-related disease outbreaks. Annual summary, 1982. Atlanta, Ga.: Centers for Disease Control, 1983. (HHS Publication No. [CDC] 83-8385.)
2. Coolbaugh JC, Daily OP, Joseph SW, Colwell RR. Bacterial contamination of divers during training exercises in coastal waters. J Marine Technology Soc 1982;15:15-21.

Hemolytic-Uremic Syndrome — New York, Massachusetts, Virginia, District of Columbia

CDC has received reports from 13 pediatric centers in New York, Massachusetts, Virginia, and the District of Columbia of 32 cases of nephrologist-diagnosed hemolytic-uremic syndrome (HUS), with onsets between June 22, and October 31, 1983. Onset of illness occurred in June (2 cases), July (6), August (4), September (13), and October (7).

The 32 children ranged in age from 11 months to 12 years (mean 3.3 years); all were white, and 56% were female. Twenty-two (69%) required dialysis. Two patients currently are on chronic dialysis and have significant neurologic sequelae 2 months after initial hospitalization.

New York: Twenty-one cases have been reported; onsets occurred between June 22 and October 25 throughout upstate and Long Island, New York. Six cases were reported from Long Island. Syracuse and Albany had four cases each, referred in an 8-week period; three of the four had prodromes consisting of bloody diarrhea.

Massachusetts: Five HUS patients were reported, with onsets between September 1 and September 15. All had bloody diarrhea prodromes. Two of the patients lived in Boston.

(Continued on page 584)

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

Disease	44th Week Ending			Cumulative, 44th Week Ending		
	November 5, 1983	November 6, 1982	Median 1978-1982	November 5, 1983	November 6, 1982	Median 1978-1982
Aseptic meningitis	253	268	219	10,203	8,044	7,076
Encephalitis: Primary (arthropod-borne & unspec.)	39	28	28	1,490	1,342	1,027
Post-infectious	2	4	4	66	69	186
Gonorrhea: Civilian	15,099	19,341	20,376	756,242	813,053	850,236
Military	289	413	512	20,491	22,397	23,221
Hepatitis: Type A	406	427	575	18,426	19,250	23,874
Type B	473	424	386	19,211	18,267	15,176
Non A, Non B	83	59	N	2,826	2,034	N
Unspecified	128	139	192	6,660	7,303	8,752
Legionellosis	15	6	N	596	506	N
Leprosy	5	3	3	203	174	174
Malaria	12	9	17	683	916	916
Measles: Total*	14	5	30	1,365	1,484	12,585
Indigenous	11	N	N	1,104	N	N
Imported	3	N	N	261	N	N
Meningococcal infections: Total	43	50	46	2,340	2,567	2,280
Civilian	43	50	46	2,325	2,553	2,264
Military	-	-	-	15	14	16
Mumps	57	68	111	2,821	4,632	7,665
Pertussis	13	31	31	1,957	1,454	1,454
Rubella (German measles)	5	25	30	872	2,135	3,465
Syphilis (Primary & Secondary): Civilian	650	679	666	27,409	27,979	22,938
Military	5	13	6	340	378	271
Toxic-shock syndrome	3	N	N	329	N	N
Tuberculosis	432	522	547	19,768	21,503	23,010
Tularemia	6	5	5	270	231	196
Typhoid fever	6	4	10	390	338	442
Typhus fever, tick-borne (RMSF)	3	9	9	1,125	931	1,010
Rabies, animal	79	116	95	5,156	5,407	5,407

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1983		Cum. 1983
Anthrax	-	Plague	36
Botulism: Foodborne	14	Poliomyelitis: Total	5
Infant (Calif. 5)	53	Paralytic	5
Other	-	Psittacosis	102
Brucellosis (Calif. 1)	159	Rabies, human	2
Cholera	1	Tetanus	64
Congenital rubella syndrome	20	Trichinosis (N.C. 2)	32
Diphtheria	3	Typhus fever, flea-borne (endemic, murine)	42
Leptospirosis (Minn. 1)	41		

*Three of the 14 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending November 5, 1983 and November 6, 1982 (44th week)

Reporting Area	Aseptic Menin-gitis	Encephalitis: Primary	Encephalitis: Post-in-fectious	Gonorrhea (Civilian)		Hepatitis (Viral), by type: A	B	NA,NB	Unspeci-fied	Legionel-losis	Leprosy	Malaria
	1983	Cum. 1983	Cum. 1983	Cum. 1983	Cum. 1982	1983	1983	1983	1983	1983	Cum. 1983	Cum. 1983
UNITED STATES	253	1,490	66	756,242	813,053	406	473	83	128	15	203	683
NEW ENGLAND	1	59	-	19,835	19,591	13	12	2	11	1	3	32
Maine	-	-	-	964	1,008	1	-	-	-	-	-	1
N.H.	-	5	-	622	666	1	-	-	-	-	2	2
Vt.	-	1	-	382	367	-	1	-	-	-	-	1
Mass.	1	29	-	8,313	8,767	9	4	-	11	1	-	14
R.I.	-	1	-	1,087	1,308	-	-	-	-	-	-	4
Conn.	-	23	-	8,467	7,475	2	7	2	-	-	1	10
MID ATLANTIC	9	113	6	94,890	102,803	21	48	3	2	-	25	91
Upstate N.Y.	9	31	-	15,536	16,948	3	8	-	1	-	-	28
N.Y. City	U	10	-	36,768	41,915	U	U	U	U	U	24	21
N.J.	-	17	1	18,376	18,940	18	40	3	1	-	-	24
Pa.	U	55	5	24,210	25,000	U	U	U	U	U	1	18
E.N. CENTRAL	68	530	20	105,907	115,855	34	58	9	6	4	6	52
Ohio	34	180	9	28,690	30,893	12	14	1	1	4	1	9
Ind.	5	175	1	10,760	13,924	12	22	2	4	-	-	7
Ill.	-	17	7	27,275	33,067	3	3	2	-	-	2	16
Mich.	29	107	-	29,410	27,705	7	19	4	1	-	3	15
Wis.	-	51	3	9,772	10,266	-	-	-	-	-	-	5
W.N. CENTRAL	10	143	10	35,326	38,242	12	24	6	2	1	6	27
Minn.	4	48	1	5,006	5,554	2	3	2	-	1	4	8
Iowa	1	55	-	3,941	4,035	-	2	-	-	-	-	3
Mo.	4	29	-	16,863	18,233	5	14	3	-	-	1	5
N. Dak.	-	4	-	387	498	-	-	-	-	-	-	2
S. Dak.	-	1	2	908	1,008	3	1	1	-	-	-	1
Nebr.	-	4	-	2,339	2,309	-	1	-	1	-	-	2
Kans.	1	2	7	5,882	6,605	2	3	-	1	-	1	6
S. ATLANTIC	32	207	15	197,115	213,566	25	113	5	6	1	12	112
Del.	-	1	-	3,633	3,558	-	2	-	-	-	-	1
Md.	6	21	-	25,469	26,473	5	33	2	-	-	1	23
D.C.	2	-	-	13,689	12,899	-	5	-	-	-	-	15
Va.	U	48	2	17,737	17,077	U	U	U	U	U	1	26
W. Va.	-	45	-	2,171	2,368	2	2	-	-	-	-	2
N.C.	7	44	-	30,545	33,883	2	11	-	-	-	2	3
S.C.	2	5	-	18,397	20,582	6	5	-	1	-	-	6
Ga.	-	7	1	39,529	42,042	4	21	-	2	-	1	9
Fla.	15	36	12	45,945	54,684	6	34	3	3	1	7	27
E.S. CENTRAL	29	64	1	63,862	70,487	34	52	9	7	-	-	14
Ky.	3	15	-	7,523	9,500	16	1	2	-	-	-	2
Tenn.	3	17	-	26,199	27,863	10	28	-	1	-	-	-
Ala.	19	24	-	19,735	20,579	3	22	7	6	-	-	7
Miss.	4	8	1	10,405	12,545	5	1	-	-	-	-	5
W.S. CENTRAL	32	147	2	107,954	111,798	98	51	6	60	1	30	59
Ark.	2	9	-	8,435	9,129	2	2	1	6	-	-	1
La.	17	17	-	21,247	20,160	17	10	1	-	-	1	8
Okla.	5	29	1	12,436	12,275	18	15	4	2	1	-	10
Tex.	8	92	1	65,836	70,234	61	24	-	52	-	29	40
MOUNTAIN	19	71	4	24,318	27,567	42	24	4	9	2	12	25
Mont.	-	2	-	1,017	1,142	2	-	-	1	-	-	-
Idaho	4	1	-	1,091	1,324	10	4	-	1	-	-	2
Wyo.	1	2	-	640	822	-	-	-	-	-	-	1
Colo.	7	43	-	6,811	7,329	17	7	2	-	2	2	9
N. Mex.	-	2	-	2,992	3,777	1	-	-	-	-	-	5
Ariz.	5	11	4	6,893	7,275	9	11	2	4	-	9	5
Utah	2	10	-	1,161	1,343	1	1	-	-	-	1	3
Nev.	-	-	-	3,713	4,555	2	1	-	3	-	-	-
PACIFIC	53	156	8	107,035	113,144	127	91	39	25	5	109	271
Wash.	3	13	1	8,269	9,726	2	3	-	1	3	15	14
Oreg.	-	-	4	5,748	6,724	27	4	6	4	-	1	11
Calif.	42	135	3	88,164	91,607	97	83	30	20	2	61	244
Alaska	1	-	-	2,819	2,908	1	-	-	-	-	-	-
Hawaii	7	8	-	2,035	2,179	-	1	3	-	-	32	2
Guam	U	-	-	103	118	U	U	U	U	U	-	2
P.R.	-	1	1	2,146	2,304	9	11	-	1	-	-	2
V.I.	U	-	-	212	239	U	U	U	U	U	-	-
Pac. Trust Terr.	U	-	-	-	388	U	U	U	U	U	-	-

U: Unavailable

TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending November 5, 1983 and November 6, 1982 (44th week)

Reporting Area	Measles (Rubeola)					Menin-gococcal Infections	Mumps			Pertussis			Rubella		
	Indigenous		Imported*		Total										
	1983	Cum. 1983	1983	Cum. 1983	Cum. 1982	Cum. 1983	1983	Cum. 1983	Cum. 1982	1983	Cum. 1983	Cum. 1982	1983	Cum. 1983	Cum. 1982
UNITED STATES	11	1,104	3	261	1,484	2,340	57	2,821	4,632	13	1,957	1,454	5	872	2,135
NEW ENGLAND	1	5	1	15	14	121	2	125	175	1	67	49	-	15	18
Maine	-	-	-	-	-	9	-	20	41	-	5	4	-	-	-
N.H.	-	-	-	3	3	6	-	22	18	-	9	4	-	4	10
Vt.	-	-	-	-	2	9	-	15	7	-	8	2	-	5	-
Mass.	1	4	1†	4	3	40	1	37	72	1	35	23	-	6	2
R.I.	-	-	-	-	-	9	1	15	16	-	5	11	-	-	1
Conn.	-	1	-	8	6	48	-	16	21	-	5	5	-	-	5
MID ATLANTIC	-	74	1	42	163	391	4	235	301	4	344	379	-	142	103
Upstate N.Y.	-	5	1†	11	112	125	4	92	79	4	114	204	-	30	49
N.Y. City	U	43	U	27	42	68	U	33	47	U	52	39	U	86	35
N.J.	-	26	-	1	5	66	-	44	47	-	19	22	-	3	18
Pa.	U	-	U	3	4	132	U	66	128	U	159	114	U	23	1
E.N. CENTRAL	9	648	-	58	77	423	17	1,278	2,373	-	407	300	2	117	190
Ohio	-	72	-	15	1	127	7	552	1,598	-	138	87	-	2	-
Ind.	-	402	-	4	2	49	-	38	40	-	54	20	-	23	29
Ill.	9	172	-	33	24	126	-	148	276	-	113	132	2	51	70
Mich.	-	2	-	5	50	77	10	460	338	-	39	23	-	16	49
Wis.	-	-	-	1	-	44	-	80	121	-	63	38	-	25	42
W.N. CENTRAL	-	1	-	7	49	140	5	158	586	1	119	74	1	41	60
Minn.	-	1	-	-	-	23	-	28	446	1	44	34	1	9	6
Iowa	-	-	-	-	-	17	-	40	35	-	6	8	-	-	-
Mo.	-	-	-	1	2	65	-	21	11	-	15	14	-	-	38
N. Dak.	-	-	-	-	-	4	-	1	-	-	2	-	-	-	-
S. Dak.	-	-	-	-	-	4	-	-	1	-	8	5	-	-	1
Nebr.	-	-	-	-	3	4	1	4	1	-	2	1	-	-	-
Kans.	-	-	-	6	44	23	4	64	92	-	42	12	-	32	15
S. ATLANTIC	-	173	-	31	110	484	5	201	283	1	224	252	-	97	88
Del.	-	-	-	-	-	11	-	8	12	-	5	6	-	-	1
Md.	-	6	-	4	3	48	3	41	30	-	17	66	-	3	34
D.C.	-	-	-	-	1	5	-	-	-	-	-	1	-	-	-
Va.	U	10	U	13	14	71	U	32	38	U	50	28	U	3	12
W. Va.	-	-	-	-	3	2	2	49	98	-	9	10	-	-	2
N.C.	-	-	-	1	1	98	-	12	20	-	27	44	-	10	2
S.C.	-	-	-	4	-	47	-	11	17	-	13	16	-	1	1
Ga.	-	8	-	-	-	76	-	48	22	-	61	38	-	13	16
Fla.	-	149	-	9	88	126	-	-	46	1	42	43	-	67	20
E.S. CENTRAL	-	1	-	5	9	138	-	54	57	-	34	49	-	17	46
Ky.	-	-	-	1	1	29	-	21	19	-	14	5	-	16	28
Tenn.	-	-	-	-	6	47	-	27	22	-	9	26	-	-	2
Ala.	-	1	-	4	2	40	-	2	9	-	5	5	-	1	-
Miss.	-	-	-	-	-	22	-	4	7	-	6	13	-	-	16
W.S. CENTRAL	-	39	-	35	153	245	4	237	213	3	424	93	2	123	117
Ark.	-	5	-	8	-	19	-	2	7	-	20	3	-	-	1
La.	-	-	-	25	2	46	-	45	6	-	12	21	-	13	1
Okla.	-	1	-	-	30	30	-	-	-	1	303	5	-	-	3
Tex.	-	33	-	2	121	150	4	190	200	2	89	64	2	110	112
MOUNTAIN	-	1	1	17	29	103	11	159	103	-	215	66	-	33	80
Mont.	-	-	-	3	-	21	1	6	4	-	1	1	-	6	5
Idaho	-	1	-	10	-	8	-	8	4	-	15	11	-	8	6
Wyo.	-	-	-	-	1	2	-	3	2	-	6	3	-	4	7
Colo.	-	-	1†	3	8	34	9	46	18	-	133	19	-	1	6
N. Mex.	-	-	-	-	-	7	-	-	-	-	14	7	-	-	6
Ariz.	-	-	-	1	17	18	1	83	48	-	24	21	-	6	16
Utah	-	-	-	-	3	12	-	8	20	-	22	4	-	7	22
Nev.	-	-	-	-	-	1	-	5	7	-	-	-	-	1	12
PACIFIC	1	162	-	51	880	295	9	374	541	3	123	192	-	287	1,433
Wash.	-	1	-	20	42	44	-	43	71	-	16	29	-	12	38
Oreg.	-	8	-	2	16	49	-	-	-	-	8	27	-	14	6
Calif.	1	152	-	27	816	193	8	298	440	3	92	108	-	259	1,376
Alaska	-	-	-	2	1	2	-	14	10	-	4	-	-	1	5
Hawaii	-	1	-	-	5	7	1	19	20	-	3	28	-	1	8
Guam	U	1	U	1	6	1	U	1	5	U	-	-	U	-	2
P.R.	-	94	-	-	133	11	2	123	90	-	13	21	-	6	12
V.I.	U	-	U	5	-	-	U	-	4	U	-	-	U	2	1
Pac. Trust Terr.	U	-	U	-	1	-	U	-	6	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending November 5, 1983 and November 6, 1982 (44th week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1983	Cum. 1982	1983	1983	Cum. 1983	Cum. 1983	Cum. 1983	Cum. 1983	Cum. 1983
UNITED STATES	27,409	27,979	3	432	19,768	270	390	1,125	5,156
NEW ENGLAND	594	506	-	26	604	4	17	6	35
Maine	19	7	-	-	32	-	-	-	8
N.H.	20	5	-	-	31	-	-	1	5
Vt.	3	4	-	2	11	-	-	-	2
Mass.	376	340	-	17	322	3	13	2	14
R.I.	19	21	-	4	50	1	1	-	-
Conn.	157	129	-	3	158	-	3	3	6
MID ATLANTIC	3,506	3,779	-	21	3,525	1	68	26	218
Upstate N.Y.	267	406	-	15	598	1	9	6	70
N.Y. City	2,068	2,225	U	U	1,357	-	25	2	-
N.J.	695	549	-	6	739	-	28	8	24
Pa.	476	599	U	U	831	-	6	10	124
E.N. CENTRAL	1,364	1,647	-	81	2,693	4	58	81	448
Ohio	383	264	-	15	425	-	18	43	58
Ind.	105	174	-	5	298	-	3	14	30
Ill.	595	866	-	25	1,151	1	26	15	232
Mich.	203	257	-	33	676	1	10	7	19
Wis.	78	86	-	3	143	2	1	2	109
W.N. CENTRAL	336	468	-	12	606	82	11	59	729
Minn.	128	109	-	1	135	-	2	-	126
Iowa	20	29	-	-	53	-	-	-	177
Mo.	123	258	-	6	296	56	8	32	94
N. Dak.	2	7	-	-	6	-	-	1	75
S. Dak.	11	2	-	1	35	8	-	5	119
Nebr.	15	14	-	-	20	8	-	3	62
Kans.	37	49	-	4	61	10	1	18	76
S. ATLANTIC	7,509	7,674	1	76	4,003	13	55	469	1,859
Del.	31	20	-	-	55	-	-	4	5
Md.	494	416	1	4	312	5	8	39	697
D.C.	326	405	-	4	164	-	3	-	136
Va.	496	525	U	U	415	1	15	63	564
W. Va.	23	26	-	4	123	-	2	12	111
N.C.	740	624	-	19	606	6	4	201	26
S.C.	476	474	-	12	381	-	2	80	35
Ga.	1,316	1,592	-	-	715	1	2	65	189
Fla.	3,607	3,592	-	33	1,232	-	19	5	96
E.S. CENTRAL	1,864	1,924	-	36	1,757	17	10	106	337
Ky.	151	114	-	12	465	1	3	22	75
Tenn.	500	540	-	14	517	11	2	49	181
Ala.	736	730	-	7	453	-	2	24	81
Miss.	477	540	-	3	322	5	3	11	-
W.S. CENTRAL	7,101	7,343	-	76	2,371	111	53	363	928
Ark.	167	180	-	10	287	68	2	42	152
La.	1,465	1,623	-	-	314	4	3	1	27
Okla.	172	154	-	10	222	31	2	226	95
Tex.	5,297	5,386	-	56	1,548	8	46	94	654
MOUNTAIN	579	718	-	17	530	32	18	13	218
Mont.	7	5	-	-	42	5	1	6	66
Idaho	7	25	-	3	26	2	-	2	16
Wyo.	12	16	-	-	11	5	-	2	11
Colo.	139	188	-	5	73	10	1	-	23
N. Mex.	158	168	-	-	95	3	1	-	13
Ariz.	147	197	-	8	219	1	13	1	36
Utah	20	20	-	-	33	5	1	1	10
Nev.	89	99	-	1	31	1	1	1	43
PACIFIC	4,556	3,920	2	87	3,679	6	100	2	384
Wash.	163	146	-	1	205	2	4	-	2
Oreg.	123	93	-	1	154	2	3	-	1
Calif.	4,189	3,572	2	78	3,054	2	90	2	366
Alaska	12	14	-	-	65	-	-	-	15
Hawaii	69	95	-	7	201	-	3	-	-
Guam	-	1	U	U	5	-	-	-	-
P.R.	762	691	-	5	398	-	-	-	47
V.I.	17	26	U	U	2	-	-	-	-
Pac. Trust Terr.	-	-	U	U	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending November 5, 1983 (44th week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	687	466	152	38	15	16	60
Boston, Mass.	193	123	45	13	6	6	17
Bridgeport, Conn.	48	39	7	1	-	1	5
Cambridge, Mass.	21	18	3	-	-	-	-
Fall River, Mass.	27	22	4	1	-	-	-
Hartford, Conn.	64	38	16	6	2	2	-
Lowell, Mass.	25	21	4	-	-	-	2
Lynn, Mass.	22	19	3	-	-	-	3
New Bedford, Mass.	25	18	6	-	-	1	-
New Haven, Conn.	37	21	10	4	2	-	1
Providence, R.I.	76	45	23	3	2	3	11
Somerville, Mass.	10	6	4	-	-	-	2
Springfield, Mass.	31	22	5	3	-	1	4
Waterbury, Conn.	35	27	7	-	1	-	4
Worcester, Mass.	73	47	15	7	2	2	11
MID. ATLANTIC	2,483	2,027	232	69	57	72	93
Albany, N.Y.	47	37	8	1	-	1	1
Allentown, Pa.	12	10	2	-	-	-	-
Buffalo, N.Y.	124	78	31	7	3	5	7
Camden, N.J.	37	28	7	-	-	2	1
Elizabeth, N.J.§	28	28	-	-	-	-	1
Erie, Pa.†	39	28	9	2	-	-	2
Jersey City, N.J.	40	25	8	4	2	1	-
N.Y. City, N.Y.§	1,360	1,232	11	24	34	35	39
Newark, N.J.§	60	50	1	2	2	3	3
Paterson, N.J.	24	15	6	2	1	-	1
Philadelphia, Pa.†	250	158	58	16	5	13	13
Pittsburgh, Pa.†	63	38	20	1	2	2	3
Reading, Pa.	32	24	8	-	-	-	1
Rochester, N.Y.	138	104	23	3	5	3	13
Schenectady, N.Y.	26	18	5	2	-	1	-
Scranton, Pa.†	37	31	4	2	-	-	-
Syracuse, N.Y.	94	71	16	1	1	5	2
Trenton, N.J.	25	14	10	-	-	1	-
Utica, N.Y.	16	15	1	-	-	-	-
Yonkers, N.Y.	31	23	4	2	2	-	6
E.N. CENTRAL	2,382	1,562	532	136	75	77	87
Akron, Ohio	92	65	17	6	3	1	-
Canton, Ohio	42	27	12	3	-	-	6
Chicago, Ill.	615	397	147	39	15	17	15
Cincinnati, Ohio	158	93	44	11	3	7	10
Cleveland, Ohio	152	92	43	4	9	4	4
Columbus, Ohio	135	89	27	6	4	9	7
Dayton, Ohio	132	83	33	6	5	5	5
Detroit, Mich.	244	142	60	20	12	10	7
Evansville, Ind.	54	40	12	2	-	-	1
Fort Wayne, Ind.§	48	48	-	-	-	-	1
Gary, Ind.	23	9	6	7	1	-	-
Grand Rapids, Mich	70	49	16	1	-	4	5
Indianapolis, Ind.	165	108	37	11	5	4	3
Madison, Wis.	41	25	10	2	2	2	7
Milwaukee, Wis.	111	85	17	2	5	2	2
Peoria, Ill.	37	19	10	3	-	5	2
Rockford, Ill.	42	34	7	1	-	-	3
South Bend, Ind.	53	40	7	3	1	2	4
Toledo, Ohio	104	77	14	3	6	4	5
Youngstown, Ohio	64	40	13	6	4	1	-
W.N. CENTRAL	695	465	137	38	15	35	45
Des Moines, Iowa	77	48	18	7	-	4	10
Duluth, Minn.	16	13	2	-	-	1	-
Kansas City, Kans.	41	28	4	6	1	2	1
Kansas City, Mo.	110	70	28	1	2	4	7
Lincoln, Nebr.	31	25	5	-	1	-	2
Minneapolis, Minn.	86	51	16	12	3	4	1
Omaha, Nebr.	65	44	16	4	1	-	6
St. Louis, Mo.	133	90	24	6	3	10	7
St. Paul, Minn.	66	48	12	2	1	3	1
Wichita, Kans.	70	48	12	-	3	7	10
S. ATLANTIC	1,191	708	297	100	42	44	41
Atlanta, Ga.	150	82	40	18	6	4	2
Baltimore, Md.	196	112	50	19	8	7	5
Charlotte, N.C.	56	32	15	5	2	2	-
Jacksonville, Fla.	94	53	33	4	2	2	5
Miami, Fla.	114	73	23	11	2	5	-
Norfolk, Va.	42	18	14	2	6	2	3
Richmond, Va.	60	37	14	5	-	4	7
Savannah, Ga.	57	35	10	7	3	2	6
St. Petersburg, Fla.	102	86	9	3	1	3	3
Tampa, Fla.	52	31	13	3	1	4	3
Washington, D.C.	209	107	67	16	10	9	7
Wilmington, Del.	59	42	9	7	1	-	-
E.S. CENTRAL	691	428	178	43	18	24	32
Birmingham, Ala.	104	56	30	6	5	7	1
Chattanooga, Tenn.	70	40	20	7	3	-	3
Knoxville, Tenn.	52	35	9	3	2	3	2
Louisville, Ky.	80	51	18	5	2	4	12
Memphis, Tenn.	151	105	34	10	1	1	6
Mobile, Ala.	62	38	16	3	2	3	4
Montgomery, Ala.	35	20	11	3	1	-	1
Nashville, Tenn.	137	83	40	6	2	6	3
W.S. CENTRAL	1,176	696	291	100	45	44	31
Austin, Tex.	48	34	8	5	1	-	2
Baton Rouge, La.	22	12	7	3	-	-	3
Corpus Christi, Tex.	41	24	9	4	3	1	3
Dallas, Tex.	205	114	55	20	11	5	-
El Paso, Tex.	54	41	10	1	1	1	2
Fort Worth, Tex.	75	37	15	10	3	10	2
Houston, Tex.	247	139	57	26	12	13	5
Little Rock, Ark.	73	46	17	3	2	5	2
New Orleans, La.	137	73	46	12	5	1	1
San Antonio, Tex.	157	105	35	9	3	5	8
Shreveport, La.	34	23	5	3	-	3	1
Tulsa, Okla.	83	48	27	4	4	-	2
MOUNTAIN	632	408	120	56	20	28	24
Albuquerque, N.Mex.	72	39	13	12	2	6	6
Colo. Springs, Colo.	32	19	7	2	4	-	5
Denver, Colo.	124	83	20	14	1	6	4
Las Vegas, Nev.	83	50	24	4	2	3	2
Ogden, Utah	15	11	2	1	-	1	1
Phoenix, Ariz.	143	99	23	13	4	4	3
Pueblo, Colo.	27	21	3	2	1	-	1
Salt Lake City, Utah	42	24	9	2	3	4	-
Tucson, Ariz.	94	62	19	6	3	4	2
PACIFIC	1,682	1,113	355	124	39	48	93
Berkeley, Calif.	17	10	6	-	-	1	1
Fresno, Calif.	63	41	14	4	3	1	3
Glendale, Calif.	16	16	-	-	-	-	1
Honolulu, Hawaii	45	27	12	4	-	2	8
Long Beach, Calif.	85	59	19	3	1	3	4
Los Angeles, Calif.	416	266	98	37	8	6	19
Oakland, Calif.	68	44	15	2	2	5	1
Pasadena, Calif.	21	17	2	1	-	1	2
Portland, Oreg.	130	94	14	11	5	5	10
Sacramento, Calif.	65	41	16	5	3	-	6
San Diego, Calif.	161	107	37	11	1	5	10
San Francisco, Calif.	155	94	37	15	3	5	4
San Jose, Calif.	168	103	35	16	10	4	11
Seattle, Wash.	153	108	29	8	2	6	6
Spokane, Wash.	53	42	7	2	-	2	4
Tacoma, Wash.	66	44	14	5	1	2	3
TOTAL	11,619††	7,873	2,294	704	326	388	506

* 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 4 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

TABLE V. Years of potential life lost, deaths, and death rates, by cause of death, and estimated number of physician contacts, by principal diagnosis, United States

Cause of morbidity or mortality (Ninth Revision ICD, 1975)	Years of potential life lost before age 65 by persons dying in 1981[1]	Estimated mortality June 1983		Estimated number of physician contacts June 1983[4]
		Number[2]	Annual Rate/100,000[3]	
ALL CAUSES (TOTAL)	9,879,590	157,890	822.7	101,300,000
Accidents and adverse effects (E800-E949)	2,587,140	7,770	40.5	5,700,000
Malignant neoplasms (140-208)	1,821,900	35,540	185.2	1,700,000
Diseases of heart (390-398, 402, 404-429)	1,621,290	59,740	311.3	5,900,000
Suicides, homicides (E950-E978)	1,403,560	3,590	18.7	—
Cerebrovascular diseases (430-438)	275,000	11,980	62.4	900,000
Chronic liver disease and cirrhosis (571)	267,350	2,020	10.5	100,000
Pneumonia and influenza[5] (480-487)	123,420	3,490	18.2	700,000
Chronic obstructive pulmonary diseases and allied conditions (490-496)	116,280	5,530	28.8	1,100,000
Diabetes mellitus (250)	105,960	2,650	13.8	2,600,000
Prenatal care[6]				2,600,000
Infant mortality[6]		2,900	9.8 /1,000 live births	

[1]Years of potential life lost for persons between 1 year and 65 years old at the time of death are derived from the number of deaths in each age category as reported by the National Center for Health Statistics, *Monthly Vital Statistics Report* (MVSR), Vol. 30, No. 13, December 20, 1982, multiplied by the difference between 65 years and the age at the mid-point of each category. As a measure of mortality, "Years of potential life lost" underestimates the importance of diseases that contribute to death without being the underlying cause of death.

[2]The number of deaths is estimated by CDC by multiplying the estimated annual mortality rates (MVSR Vol. 32, No. 7, October 18, 1983, pp. 8-9) and the provisional U.S. population in that month (MVSR Vol. 32, No. 6, September 21, 1983, p.1) and dividing by the days in the month as a proportion of the days in the year.

[3]Annual mortality rates are estimated by NCHS (MVSR Vol. 32, No. 7, October 18, 1983, pp. 8-9), using the underlying cause of death from a 10% systematic sample of death certificates received in state vital statistics offices during the month and population estimates from the Bureau of the Census.

[4]IMS America *National Disease and Therapeutic Index* (NDTI), Monthly Report, June 1983, Section III. This estimate comprises the number of office, hospital, and nursing home visits and telephone calls prompted by each medical condition based on a stratified random sample of office-based physicians (2,100) who record all private patient contacts for 2 consecutive days each quarter. The accuracy of the estimates is unknown, and the number provided should be used only as a gross indicator of morbidity.

[5]Data for "infectious diseases and their sequelae" as a cause of death and physician visits comparable to other multiple-code categories (e.g., "malignant neoplasms") are not presently available.

[6]"Prenatal care" (NDTI) and "Infant mortality" (MVSR Vol. 32, No. 6, September 21, 1983, p.1) are included in the table because "Years of potential life lost" does not reflect deaths of children <1 year.

Hemolytic-Uremic Syndrome — Continued

Virginia: Four cases have been reported; onsets occurred between September 14 and October 31, with prodromes consisting of nonbloody diarrhea in three and bloody diarrhea in one.

District of Columbia: Two cases occurred, one each on September 18 and September 27; both patients had vomiting and bloody diarrhea prodromes.

Reported by R Spitzer, MD, Upstate Medical Center, Syracuse, MR Kaplan, MD, New York Hospital, Cornell Medical Center, New York City, F Kaskel, MD, Stoneybrook, Long Island, B Gauthier, MD, Long Island Jewish Hospital, New Hyde Park, L Feld, MD, Children's Hospital of Buffalo, J Largent, MD, Albany Medical Center, H Cohen, MD, Strong Memorial Hospital, Rochester, R Rothenberg, MD, State Epidemiologist, New York State Dept of Health; W Harris, MD, Boston Children's Hospital, B Strechenberg, MD, Bay State Medical Center, Springfield, NJ Fiumara, MD, State Epidemiologist, Massachusetts State Dept of Health; RL Chevalier, MD, University of Virginia, Charlottesville, RS Buddington, MD, Johnston Memorial Hospital, Abingdon, GB Miller, MD, State Epidemiologist, Virginia State Dept of Health; GH Bock, MD, CC Porter, MD, EJ Ruley, MD, Children's Hospital National Medical Center, ME Levy, MD, State Epidemiologist, Dept of Human Svcs, Washington, DC; Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: First described in 1955, HUS is defined by the classic triad of microangiopathic hemolytic anemia, acute nephropathy, and thrombocytopenia (*1*). HUS is usually preceded by a prodromal gastrointestinal illness, or less commonly, an upper respiratory illness. The gastrointestinal illness consists of vomiting, bloody and/or nonbloody diarrhea, and abdominal cramps. Renal failure is common, often requiring dialysis; death has been reported in approximately 6%-10% of children (*2,3*).

HUS occurs primarily among white infants and children less than 5 years of age, with equal distribution among males and females. The disease has been reported with greatest frequency from California, Argentina, the Netherlands, and South Africa. Clusters of between nine and 14 cases have been reported from Sacramento, California (*4*), Canada (*5,6*), Wales (*7*), Bangladesh, and Central America (*8*). In one outbreak in Toronto, Canada, 13 children developed HUS following ingestion of fresh apple juice at a local fair. No common organism or toxin was isolated from children or juice (*5*).

Although the cause of HUS is unknown, both viral and bacterial pathogens have been associated with the illness. Enteroviruses, including Coxsackie A and B and echoviruses, have been reported, and several investigators have noted a summer-fall seasonality (*7,9,10*). Recently, Vero-toxin producing *Escherichia coli* were associated with 11 of 15 children with sporadic cases of HUS (*11*). *E. coli* 0157: H7, a rare serotype associated with hemorrhagic colitis (*12*), was isolated in two of these 11 cases, as well as in three others from the United Kingdom (*13*). Other bacterial pathogens isolated from patients with HUS include *Shigella* (*8*), *Campylobacter* (*14*), and *Yersinia* (*15*).

When investigating cases of HUS, stool specimens for viral and bacterial culture should be obtained as early as possible—preferably within 7 days of onset of the diarrheal illness. Specimens that will not be processed immediately should be stored at -70 C (-94 F).

The Division of Viral Diseases, Center for Infectious Diseases, CDC, is interested in obtaining reports of new and recent cases of HUS in children.

References

1. Kaplan BS, Thomson PD, de Chadarevian JP. The hemolytic uremic syndrome. Pediatr Clin of North Am. 1976;23:761-77.
2. Dolislager D, Tune B. The hemolytic-uremic syndrome: spectrum of severity and significance of prodrome. Am J Dis Child 1978;132:55-8.
3. Sorrenti LY, Lewy PR. The hemolytic-uremic syndrome: experience at a center in the Midwest. Am J Dis Child 1978;132:59-62.
4. CDC. Unpublished data.
5. Steele BT, Murphy N, Arbus GS, Rance CP. An outbreak of hemolytic uremic syndrome associated with ingestion of fresh apple juice. J Pediatr 1982;101:963-5.

Hemolytic-Uremic Syndrome — Continued

6. O'Regan S, Robitaille P, Mongeau JG, McLaughlin B. The hemolytic-uremic syndrome associated with ECHO 22 infection. Clin Pediatr 1980;19:125-7.
7. McLean MM, Jones CH, Sutherland DA. Haemolytic-uraemic syndrome: a report of an outbreak. Arch Dis Child 1966;41:76-81.
8. Koster F, Levin J, Walker L, et al. Hemolytic-uremic syndrome after Shigellosis: relation to endotoxemia and circulating immune complexes. N Engl J Med 1978;298:927-33.
9. Ray CG, Tucker VL, Harris DJ, Cuppage FE, Chin DY. Enteroviruses associated with the hemolytic-uremic syndrome. Pediatrics 1970;46:378-88.
10. Austin TW, Ray CG. Coxsackie virus group B infections and the hemolytic-uremic syndrome. J Infect Dis 1973;127:698-701.
11. Karmali MA, Petric M, Steele BT, Lim C. Sporadic cases of haemolytic-uraemic syndrome associated with faecal cytotoxin and cytotoxin-producing *Escherichia coli* in stools. Lancet 1983;1:619-20.
12. Riley LW, Remis RS, Helgerson SD, et al. Hemorrhagic colitis associated with a rare *Escherichia coli* serotype. N Eng J Med 1983;308:681-5.
13. Hemolytic-uremic syndrome. Communicable disease report, weekly edition, CDR 83/36, Sept 9, 1983.
14. Chamovitz BN, Hartstein AI, Alexander SR, Terry AB, Short P, Katon R. *Campylobacter jejuni*-associated hemolytic-uremic syndrome in a mother and daughter. Pediatr 1983;71:253-6.
15. Prober CG, Tune B, Hoder L. Yersinia pseudotuberculosis septicemia. Am J Dis Child 1979;133:623-4.

Schistosomiasis among River Rafters — Ethiopia

On October 20, 1982, 4 days after returning from a rafting trip down the Omo River in Ethiopia, a Colorado resident noted the onset of a low-grade, intermittent fever and myalgias. His symptoms persisted, but he did not seek medical attention. However, in early February 1983, a call from another rafter, in whom schistosomiasis had just been diagnosed, prompted him to visit his physician. Stool examination revealed eggs of *Schistosoma mansoni*, and his serum was positive by the indirect immunofluorescent (IIF) test for schistosomiasis.

CDC and the Colorado Department of Health were independently informed of several other possible cases of acute schistosomiasis mansoni among other participants. Three tour guides had schistosomiasis mansoni diagnosed by stool examination after the trip, and they were symptomatic, with intermittent fever, cough, lethargy, and myalgias associated with an absolute eosinophilia ($\geq$ 600/mm^3). A fourth guide had developed a 1-cm diameter, nontender, firm mass on her left buttock but had an absolute eosinophila count of 408/mm^3 and was otherwise asymptomatic. Her stool examination revealed eggs of *S. mansoni*. The mass was not biopsied but resolved 6 days after treatment with praziquantel.

There were two separate raft trips; the first from September 19 to October 16, and the second from October 27 to December 4. Both followed the same route down the Omo River as another trip that led to an outbreak of schistosomiasis a year earlier (*1*). Participants had been made aware of the possibility of contracting schistosomiasis by the tour organization. Thirty people participated in one or both trips, and all four U.S.-based river guides were on both trips. Attempts were made to contact all participants except five staff from the Ethiopian office. Four non-U.S. citizens and one U.S. citizen could not be located. Of 20 participants contacted, 19 had stool and serologic examinations performed and completed a questionnaire concerning exposure; one with a positive IIF test but four negative stool examinations and a negative rectal biopsy is excluded from further analysis. Seven (39%) of the 18 participants had *S. mansoni* infection confirmed by stool examinations, and 11 (61%) were negative on testing three or more stools and had negative IIF tests.

Schistosomiasis – Continued

All seven infected and two uninfected rafters developed an illness during or after the raft trips. Six of the seven infected persons had onset of a febrile illness, with eosinophilia consistent with acute schistosomiasis, within 3 weeks after a trip; the seventh was the guide who developed the soft tissue mass. Quantitative stool examinations of three infected participants revealed relatively light infections with 26, 24, and 18 eggs per gram.

Two persons with schistosomiasis also had confirmed *Plasmodium vivax* malaria. Of the two uninfected participants who became ill, one developed diarrhea, which resolved with metronidazole during the trip. The second developed confirmed *P. vivax* malaria in March 1983. Finally, stool from one asymptomatic participant had cysts of *Entameba histolytica.*

No specific site of exposure could be identified. Most participants took few or no precautions other than toweling-off, despite an awareness of the risk of acquiring schistosomiasis. However, those who towel-dried most of the time after water exposure had a significantly reduced likelihood of infection; eight of 11 of the noninfected and one of seven of the ill toweldried after water exposure during the last third of either trip ($p = 0.02$).

Reported by J Sisson, MD, Salt Lake City, C Nichols, MPA, Utah State Dept of Health; R Hopkins, MD, State Epidemiologist, Colorado State Dept of Health; Div of Field Svcs, Epidemiology Program Office, Helminthic Diseases Br, Div of Parasitic Diseases, Center for Infectious Diseases, CDC.

Editorial Note: This outbreak of acute schistosomiasis mansoni resembles an outbreak that occurred in 1981 (*1*). The unusual presentation of schistosomiasis as a subcutaneous mass has been previously described with *S. japonicum, S. mansoni,* and *S. hematobium.* While the present case was not parasitologically confirmed, the rapid resolution of the mass after praziquantel therapy suggests that it was schistosomal.

With multiple potential sites of exposure along the route, the exact mode and site of exposure could not be distinguished. For such an activity, exposure would be difficult to avoid, and such measures as chemically treating or heating water before bathing would not always be possible. Nevertheless, epidemiologic data gathered on these trips imply that towel-drying after exposure to infested water can markedly reduce the risk of infection supporting the recommendations that this is a useful protective measure (*2*).

References

1. CDC. Cercarial dermatitis among bathers in California; Katayama syndrome among travelers in Ethiopia. MMWR:31:435-8.
2. Schistosomiasis. In: Control of communicable diseases in man. Twelfth edition. Benenson AS, ed. American Public Health Association, 1975:282-4.

Dengue — Mexico, El Salvador, Honduras

During the past 4 months, increased dengue activity has been reported in Mexico, El Salvador, and Honduras.

Mexico: In late June and early July 1983, increased numbers of cases of dengue-like illness were reported from Puebla in the state of Puebla, Mexico. In subsequent weeks, outbreaks of dengue-like illness became widespread, with reports on the Pacific coast from Chiapas in the south to Jalisco in the north. In addition, cases were reported from Veracruz and Yucatan on the east coast of the country.

Through week 32, 3,527 cases were reported to Mexican health authorities. The largest numbers were reported from the states of Oaxaca (759), Guerrero (725), and Michoacan (542) on the Pacific coast and Yucatan (592) and Veracruz (286) on the east coast. Additional cases have been reported from Chiapas, Puebla, Morelos, and Jalisco. Several of the out-

Dengue — Continued

breaks have occurred in cities that had not previously reported dengue. The reports indicate that dengue transmission is widespread in Mexico.

Clinically, the illness has presented as classical dengue. According to Mexican health authorities, a few cases of severe disease reported in some parts of the Isthmus of Tehuantepec, Oaxaca, were not confirmed as dengue.

The serotypes responsible for all the outbreaks are not known, but serologic and virologic data from the Institute of Public Health and Tropical Diseases in Mexico City have shown that dengue 1 is responsible for some. Thus, three dengue 1 viruses were isolated from patients in Puebla, with onsets in July. The identification of these isolates was confirmed by CDC. Three additional virus isolations have been made—two from Puebla and one from Tapachula, Chiapas; identification is pending. Serologic conversions to dengue have been confirmed in 30.5% of cases tested by the laboratory in Mexico City.

El Salvador: In late June and early July, increased numbers of cases of dengue-like illness were reported in San Salvador, El Salvador. The illness was generally mild and of the classical type. No hemorrhagic manifestations were reported.

Ministry of Health officials collected blood samples from 14 patients who had onset in late June or the first week of July. Convalescent samples were subsequently collected from 10 of these patients and sent to CDC for testing. Of the 10 paired sera, seven showed a fourfold or greater rise in hemagglutination inhibition (HI) and complement fixation (CF) antibodies to dengue between acute- and convalescent-phase samples. Five of the seven patients had primary serologic responses, which were monotypic for dengue 4. The others, as well as a patient with a single, late acute sample, had secondary serologic responses. Dengue 4 virus has been isolated from the acute sera of two patients, one with a primary dengue infection, the other with a serologically confirmed secondary dengue infection.

Through August, 2,867 dengue cases were reported in El Salvador, with the majority reported in July and August; numbers are not available for September. The cases were reported from all areas of the country, with most (1,005) reported from the eastern region bordering Honduras. Although laboratory data are limited, seven of the 10 patients with paired sera from San Salvador were positive for dengue. Such a high rate of case confirmation is usually only observed during periods of epidemic transmission.

Honduras: Dengue 1 has recently been confirmed serologically in Honduras by the Department of Microbiology, Universidad Nacional Autonoma de Honduras. No information is available as to the patient's residence or date of onset. Reports suggest, however, that dengue-like illnesses have increased in San Pedro Sula since July, but no specimens or information on numbers of cases are available.

Reported by L Cabrera-Coello, MD, Subdirector de Vigilancia y Epidemiologia, Secretaria de Salubridad y Asistencia, Mexico City, E Zorilla, MD, Director, ML Zarate de Guaneros, MD, Head, Virology Dept, Instituto de Salubridad y Enfermedades Tropicales, Mexico City, Mexico; R Hernandez, MD, Chief, JL Guzman, MD, Assistant Chief, Div of Epidemiology, Ministry of Health, A Lago, MD, Epidemiologist, OPS/OMS, El Salvador; M Figueroa, MD, Dept of Microbiology, Universidad Nacional Autonoma de Honduras, Honduras; Dengue Br, Div of Vector-Borne Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: These reports indicate that both dengue 1 and 4 are still active in Mexico and Central America. Additionally, serologic and virologic data suggest that dengue 2 is also being transmitted in the region.

Both Mexico and El Salvador experienced dengue epidemics in the summer of 1982. In Mexico, available evidence suggested most activity was then due to dengue 1, as it is now. This is supported by the fact that the 1983 epidemics are in different cities and states than those reported in 1982. The virus serotype responsible for the 1982 epidemic in El Salvador

Dengue — Continued

was not confirmed virologically, but serologic evidence of dengue 4 was obtained from an American traveler to the country at that time. The 1983 epidemic in San Salvador appears due to this serotype as well.

Although detailed information is not available from Honduras, the fact that most reported cases from El Salvador have been from the eastern region bordering Honduras and that there has been increased activity reported in San Pedro Sula suggests widespread activity in that country as well. Health authorities in Guatemala have not reported increased dengue activity in that country.

Persons traveling to these countries should be made aware of possible dengue infection and should take routine precautions against mosquitoes.

The *Morbidity and Mortality Weekly Report* is prepared by the Centers for Disease Control, Atlanta, Georgia, and available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE / CENTERS FOR DISEASE CONTROL
ATLANTA, GEORGIA 30333
OFFICIAL BUSINESS

Postage and Fees Paid
U.S. Department of HHS
HHS 396

U.S.MAIL

S 6HCRH3MCDJ73 8129 X
JOSEPH MC DADE PHD
LEGIONNAIRE ACTIVITY
LEPROSY & RICKETTSIAL BR
VIROLOGY DIV, CID
7-85

HHS Publication No. (CDC) 84-8017

CENTERS FOR DISEASE CONTROL

November 11, 1983 / Vol. 32 / No. 44

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Perspectives in Disease Prevention and Health Promotion

Alcohol and Fatal Injuries — Fulton County, Georgia, 1982

Because homicides, suicides, and fatal injuries are among the leading causes of premature loss of life in the United States (*1*), a surveillance system was recently initiated in several counties in Georgia to identify the extent to which factors such as alcohol and drug abuse are associated with fatal injuries. As an initial effort, a retrospective survey was conducted to ascertain the blood alcohol content (BAC) of all victims of fatal injury events that occurred in Fulton County* in 1982.

Investigators' reports from the Fulton County Medical Examiner's office were reviewed for all persons classified as homicides, suicides, or victims of unintentional fatal injuries. Ninety-five percent of victims who died within 6 hours of the injury event had BACs obtained by the medical examiner and were included in data analysis. (BAC has been shown less likely to be obtained and if obtained, less meaningful, when death occurs more than 6 hours after the injury event [*2,3*].) The Georgia Department of Public Safety's accident report forms were also reviewed to obtain information on the BACs of drivers involved in motor vehicle accidents (MVAs) that resulted in fatal injuries to pedestrians or vehicle occupants.

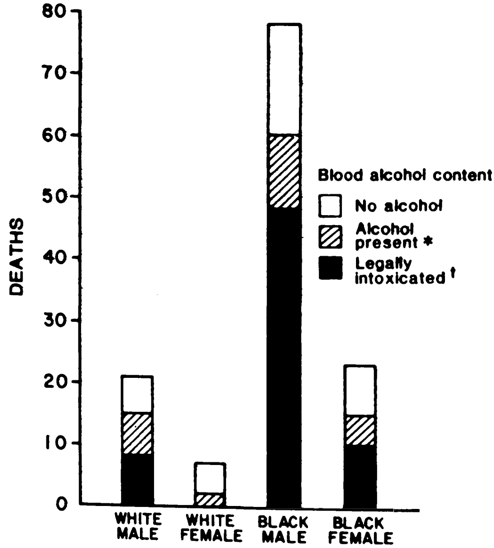
Sixty-six (51%) of 129 homicide victims who died within 6 hours of injury were legally intoxicated (BAC 0.1 g% or greater) at the time of death (Figure 1); 80% were male, and 82% were black. Seventy-seven percent of black males and 71% of white males had been drinking before the injury event (BAC greater than 0). Of those who committed suicide, 18 (20%) of the 90 victims were legally intoxicated at the time of death (Figure 2), and 34 (38%) had been drinking. Sixty-five percent of the 90 victims were white males.

---

*Fulton County encompasses most of the city of Atlanta, as well as a suburban area to the north of the city. The Atlanta Regional Council projected the county's population at 599,100 in 1982; approximately 48% of the population is white and 51% black.

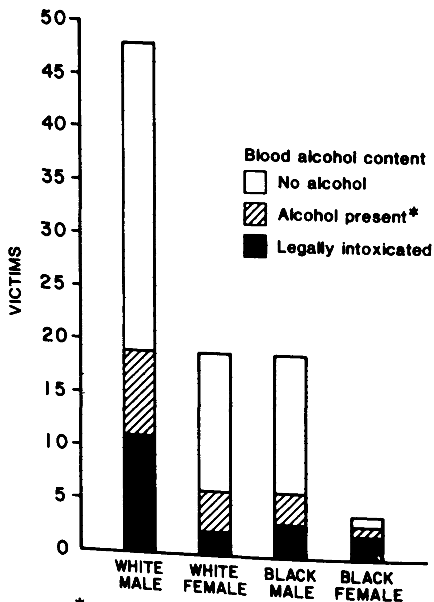
Alcohol and Fatal Injuries – Continued

FIGURE 1. Alcohol use among homicide victims, by race and sex — Fulton County, Georgia, 1982



*0.01–.09 grams percent
†≥0.1 grams percent

FIGURE 2. Alcohol use among suicide victims, by race and sex — Fulton County, Georgia, 1982



*0.01–.09 grams percent
†≥0.1 grams percent

Alcohol and Fatal Injuries — Continued

In 1982, 78 Fulton County MVA victims died within 6 hours of the event. At least one driver was legally intoxicated in 39 (85%) of 46 MVAs in which drivers' BACs were collected (Figure 3), and 42 (91%) involved drivers who had been drinking. Thirty-two (82%) of legally intoxicated drivers were at least 25 years old, and 30 (77%) were male. Six (38%) of 16 pedestrian victims were legally intoxicated.

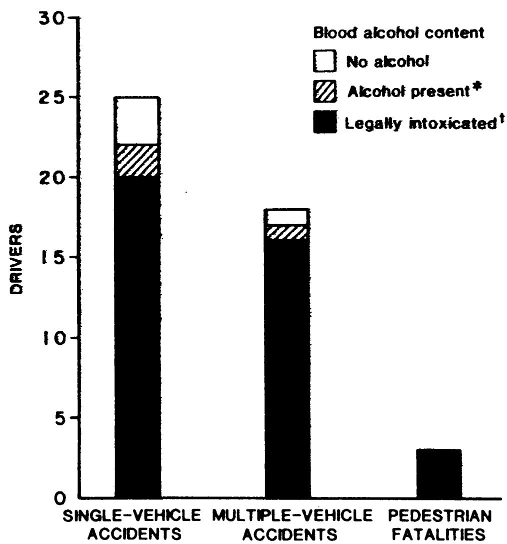
For nonvehicular accidents (NVA), the data base is small; six of 10 victims of fire, eight (57%) of 14 victims of accidental drug ingestion or overdose, three (27%) of 11 victims of carbon monoxide poisoning, and five (36%) of 14 victims of drowning were legally intoxicated. Overall, for NVAs, 27 (38%) of 71 victims were legally intoxicated, and 34 (48%) had been drinking.

Reported by Georgia Epidemiology Report *(Sept. 1983), RK Sikes, DVM, State Epidemiologist, Georgia Dept of Human Resources; Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office, CDC.*

Editorial Note: The significance of alcohol as a contributor to fatal injuries may vary from place to place and over time. These data suggest that, in Fulton County in 1982, alcohol abuse may have factored in many of the fatal injuries, both intentional and unintentional. The striking differences in the frequencies of homicide and suicide between blacks and whites may reflect differences in the socioeconomic status of these groups in Fulton County.

A major 1990 Health Objective for the Nation is reduction of the adverse health consequences associated with alcohol abuse, which includes injury and death to others as well as to the individual who misuses alcohol (e.g., MVAs, fires, carbon monoxide poisonings) (*4*). At a local level, ongoing surveillance of alcohol-related fatal injuries can increase public awareness of the extent of the problem and provide mental- and physical-health programs, law-

FIGURE 3. Blood alcohol content of drivers involved in fatal motor-vehicle accidents — Fulton County, Georgia, 1982



*0.01–.09 grams percent

† ≥0.1 grams percent

Alcohol and Fatal Injuries — Continued

enforcement agencies, and policymakers with an increased ability to plan intervention strategies and to monitor the effectiveness of programs designed to deter alcohol misuse.

References

1. CDC. Premature death—United States. MMWR 1983;32:118-9.
2. Adelson L. The pathology of homicide: a vade mecum for pathologist, prosecutor and defense counsel. Springfield, Illinois: Charles C. Thomas, 1974:883-918.
3. Haddon W Jr, Valien P, McCarroll JR, Umberger CJ. A controlled investigation of the characteristics of adult pedestrians fatally injured by motor vehicles in Manhattan. J Chron Dis 1961;14:655-78.
4. U.S. Public Health Service. Promoting health/preventing disease: objectives for the nation. U.S. Public Health Service, 1980.

Epidemiologic Notes and Reports

Gastrointestinal Illness among Scuba Divers — New York City

In July 1982, an outbreak of gastrointestinal illness occurred among New York City's Police and Fire Departments' scuba divers following dives in sewage-contaminated waters. Although the causes of illness in many divers were not identified, gastrointestinal parasites were found in 12 divers.

The Fire Department developed a scuba diving program in early 1982 to train 40 firefighters in two rescue companies to respond to pier fires and water-related emergencies. In July 1982, one company trained primarily along the Hudson River at 47th Street and the other mainly at the Brooklyn Navy Yard. The Police Department diving team, which has been in operation since the mid-1960s with five divers, expanded to 16 divers in January 1982. Besides responding to water-related emergencies, police divers explore river beds for evidence and help recover lost or stolen property.

The divers generally use standard scuba masks and wet suits. Despite this protective gear, they report ingesting small quantities of polluted water while swimming at the surface or while using mouthpieces that have dangled in the water before use.

A questionnaire survey of 55 of the Police and Fire Departments' divers was administered in July 1982. Divers ranged in age from 21 to 52 years (mean 35.5 years). All were male. Approximately 95% were white and the others black or Hispanic. The survey revealed 21 cases of recent or current gastrointestinal illness, defined as 2 or more days of any of the following: (1) diarrhea (watery stool), (2) crampy abdominal pain, or (3) change in stool consistency. Three cases developed in the spring of 1982, and the remaining 18 cases in July 1982.

Twenty symptomatic divers had stools cultured for bacterial pathogens, and all 55 divers had purged stools examined for parasites. No specimens were obtained for viral studies. One bacterial culture was positive for *Campylobacter.* The purged stool examinations revealed 12 cases of gastrointestinal parasites—five of *Entamoeba histolytica* and seven of *Giardia lamblia.*

To determine if diving in polluted water was an important risk factor for gastrointestinal illness and parasitic infection, investigators questioned and examined a comparison group of

Gastrointestinal Illness – Continued

116 nondiving firefighters. Study participants submitted purged stool specimens. The incidence of gastrointestinal illness in July 1982 among the nondivers was estimated by reviewing sick-leave records.

During July, the divers had developed gastrointestinal illness more than four times as frequently as the nondiving firefighters. When symptomatic firefighters were questioned about possible common sources of exposure, such as weddings, picnics, camping trips, or other group activities, none except scuba diving was identified. Neither travel nor sexual orientation, two additional risk factors for parasites, differed among divers with parasites, uninfected divers, and nondiving firefighters.

Twenty-three nondiving firefighters had purged stools examined for parasites; none had *G. lamblia* or *E. histolytica*.

At the Fire Department training sites along the Hudson and East Rivers, the New York City Department of Health tested the water for total coliforms, pathogenic bacteria (*Salmonella, Shigella, Campylobacter,* and *Yersinia*) and parasites. Relatively few pathogens were found in these highly polluted waters. However, examination of river water utilizing a high-volume water filter revealed numerous parasites including *G. lamblia* and *E. histolytica*-like cysts.

Reported by A Goodman, MD, S Schultz, MD, E Bell, E Gumbs, MD, S Friedman, MD, New York City Dept of Health, C Robinson, MD, New York City Police Dept, C Jones, MD, New York City Fire Dept; C Hibler, PhD, Dept of Pathology, Colorado State University.

Editorial Note: In recent years, gastrointestinal illness has been reported to be associated with swimming in polluted water (*1*). The causes of these infections have been somewhat obscure. In some cases, symptoms were probably caused by viruses; in others, bacterial agents, such as *Shigella*, have been isolated. The majority of cases, however, have remained undiagnosed.

More than 188,000,000 gallons of raw sewage are discharged daily into the Hudson and East Rivers of New York City. Swimming is limited by the Department of Health to beaches monitored regularly for fecal contamination; thus, swimming in New York City's coastal waters has never been considered an important risk factor for illness.

The results of this investigation provide strong evidence that scuba diving in sewage-contaminated water is associated with gastrointestinal illness. The data suggest that parasites are an important cause of illness and that the major health hazard arises from ingesting sewage-contaminted water. Police and Fire Department scuba divers now practice in waters designated acceptable by the Department of Health.

Advanced diving equipment, such as high-pressure masks, wireless radio devices, and dry suits, should be used to minimize exposure; a recent study of various types of diving suits found that a dry suit in combination with a full-face mask, afforded the best protection against microbial contamination (*2*). The National Oceanic and Atmospheric Administration is continuing this study.

Routine health surveillance of divers also may minimize the consequences of diving in contaminated waters. Divers should be questioned as to the nature of any illness requiring absence from work. Informed police and fire health officials could then appropriately advise the divers' personal physicians as to the possibility of water-related infection. Worker education may serve the same purpose.

Reference

1. CDC. Water-related disease outbreaks. Annual summary, 1982. Atlanta, Ga.: Centers for Disease Control, 1983. (HHS Publication No. [CDC] 83-8385.)
2. Coolbaugh JC, Daily OP, Joseph SW, Colwell RR. Bacterial contamination of divers during training exercises in coastal waters. J Marine Technology Soc 1982;15:15-21.

Hemolytic-Uremic Syndrome — New York, Massachusetts, Virginia, District of Columbia

CDC has received reports from 13 pediatric centers in New York, Massachusetts, Virginia, and the District of Columbia of 32 cases of nephrologist-diagnosed hemolytic-uremic syndrome (HUS), with onsets between June 22, and October 31, 1983. Onset of illness occurred in June (2 cases), July (6), August (4), September (13), and October (7).

The 32 children ranged in age from 11 months to 12 years (mean 3.3 years); all were white, and 56% were female. Twenty-two (69%) required dialysis. Two patients currently are on chronic dialysis and have significant neurologic sequelae 2 months after initial hospitalization.

New York: Twenty-one cases have been reported; onsets occurred between June 22 and October 25 throughout upstate and Long Island, New York. Six cases were reported from Long Island. Syracuse and Albany had four cases each, referred in an 8-week period; three of the four had prodromes consisting of bloody diarrhea.

Massachusetts: Five HUS patients were reported, with onsets between September 1 and September 15. All had bloody diarrhea prodromes. Two of the patients lived in Boston.

(Continued on page 584)

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

Disease	44th Week Ending			Cumulative, 44th Week Ending		
	November 5, 1983	November 6, 1982	Median 1978-1982	November 5, 1983	November 6, 1982	Median 1978-1982
Aseptic meningitis	253	268	219	10,203	8,044	7,076
Encephalitis: Primary (arthropod-borne & unspec.)	39	28	28	1,490	1,342	1,027
Post-infectious	2	4	4	66	69	186
Gonorrhea: Civilian	15,099	19,341	20,376	756,242	813,053	850,236
Military	289	413	512	20,491	22,397	23,221
Hepatitis: Type A	406	427	575	18,426	19,250	23,874
Type B	473	424	386	19,211	18,267	15,176
Non A, Non B	83	59	N	2,826	2,034	N
Unspecified	128	139	192	6,660	7,303	8,752
Legionellosis	15	6	N	596	506	N
Leprosy	5	3	3	203	174	174
Malaria	12	9	17	683	916	916
Measles: Total*	14	5	30	1,365	1,484	12,585
Indigenous	11	N	N	1,104	N	N
Imported	3	N	N	261	N	N
Meningococcal infections: Total	43	50	46	2,340	2,567	2,280
Civilian	43	50	46	2,325	2,553	2,264
Military	-	-	-	15	14	16
Mumps	57	68	111	2,821	4,632	7,665
Pertussis	13	31	31	1,957	1,454	1,454
Rubella (German measles)	5	25	30	872	2,135	3,465
Syphilis (Primary & Secondary): Civilian	650	679	666	27,409	27,979	22,938
Military	5	13	6	340	378	271
Toxic-shock syndrome	3	N	N	329	N	N
Tuberculosis	432	522	547	19,768	21,503	23,010
Tularemia	6	5	5	270	231	196
Typhoid fever	6	4	10	390	338	442
Typhus fever, tick-borne (RMSF)	3	9	9	1,125	931	1,010
Rabies, animal	79	116	95	5,156	5,407	5,407

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1983		Cum. 1983
Anthrax	-	Plague	36
Botulism: Foodborne	14	Poliomyelitis: Total	5
Infant (Calif. 5)	53	Paralytic	5
Other	-	Psittacosis	102
Brucellosis (Calif. 1)	159	Rabies, human	2
Cholera	1	Tetanus	64
Congenital rubella syndrome	20	Trichinosis (N.C. 2)	32
Diphtheria	3	Typhus fever, flea-borne (endemic, murine)	42
Leptospirosis (Minn. 1)	41		

*Three of the 14 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending November 5, 1983 and November 6, 1982 (44th week)

Reporting Area	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy	Malaria
		Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied			
	1983	Cum. 1983	Cum. 1983	Cum. 1983	Cum. 1982	1983	1983	1983	1983	1983	Cum. 1983	Cum. 1983
UNITED STATES	253	1,490	66	756,242	813,053	406	473	83	128	15	203	683
NEW ENGLAND	1	59	-	19,835	19,591	13	12	2	11	1	3	32
Maine	-	-	-	964	1,008	1	-	-	-	-	-	1
N.H.	-	5	-	622	666	1	-	-	-	-	2	2
Vt.	-	1	-	382	367	-	1	-	-	-	-	1
Mass.	1	29	-	8,313	8,767	9	4	-	11	1	-	14
R.I.	-	1	-	1,087	1,308	-	-	-	-	-	-	4
Conn.	-	23	-	8,467	7,475	2	7	2	-	-	1	10
MID ATLANTIC	9	113	6	94,890	102,803	21	48	3	2	-	25	91
Upstate N.Y.	9	31	-	15,536	16,948	3	8	-	1	-	-	28
N.Y. City	U	10	-	36,768	41,915	U	U	U	U	U	24	21
N.J.	-	17	1	18,376	18,940	18	40	3	1	-	-	24
Pa.	U	55	5	24,210	25,000	U	U	U	U	U	1	18
E.N. CENTRAL	68	530	20	105,907	115,855	34	58	9	6	4	6	52
Ohio	34	180	9	28,690	30,893	12	14	1	1	4	1	9
Ind.	5	175	1	10,760	13,924	12	22	2	4	-	-	7
Ill.	-	17	7	27,275	33,067	3	3	2	-	-	2	16
Mich.	29	107	-	29,410	27,705	7	19	4	1	-	3	15
Wis.	-	51	3	9,772	10,266	-	-	-	-	-	-	5
W.N. CENTRAL	10	143	10	35,326	38,242	12	24	6	2	1	6	27
Minn.	4	48	1	5,006	5,554	2	3	2	-	1	4	8
Iowa	1	55	-	3,941	4,035	-	2	-	-	-	-	3
Mo.	4	29	-	16,863	18,233	5	14	3	-	-	1	5
N. Dak.	-	4	-	387	498	-	-	-	-	-	-	2
S. Dak.	-	1	2	908	1,008	3	1	1	-	-	-	1
Nebr.	-	4	-	2,339	2,309	-	1	-	1	-	-	2
Kans.	1	2	7	5,882	6,605	2	3	-	1	-	1	6
S. ATLANTIC	32	207	15	197,115	213,566	25	113	5	6	1	12	112
Del.	-	1	-	3,633	3,558	-	2	-	-	-	-	1
Md.	6	21	-	25,469	26,473	5	33	2	-	-	1	23
D.C.	2	-	-	13,689	12,899	-	5	-	-	-	-	15
Va.	U	48	2	17,737	17,077	U	U	U	U	U	1	26
W. Va.	-	45	-	2,171	2,368	2	2	-	-	-	-	2
N.C.	7	44	-	30,545	33,883	2	11	-	-	-	2	3
S.C.	2	5	-	18,397	20,582	6	5	-	1	-	-	6
Ga.	-	7	1	39,529	42,042	4	21	-	2	-	1	9
Fla.	15	36	12	45,945	54,684	6	34	3	3	1	7	27
E.S. CENTRAL	29	64	1	63,862	70,487	34	52	9	7	-	-	14
Ky.	3	15	-	7,523	9,500	16	1	2	-	-	-	2
Tenn.	3	17	-	26,199	27,863	10	28	-	1	-	-	-
Ala.	19	24	-	19,735	20,579	3	22	7	6	-	-	7
Miss.	4	8	1	10,405	12,545	5	1	-	-	-	-	5
W.S. CENTRAL	32	147	2	107,954	111,798	98	51	6	60	1	30	59
Ark.	2	9	-	8,435	9,129	2	2	1	6	-	-	1
La.	17	17	-	21,247	20,160	17	10	1	-	-	1	8
Okla.	5	29	1	12,436	12,275	18	15	4	2	1	-	10
Tex.	8	92	1	65,836	70,234	61	24	-	52	-	29	40
MOUNTAIN	19	71	4	24,318	27,567	42	24	4	9	2	12	25
Mont.	-	2	-	1,017	1,142	2	-	-	1	-	-	-
Idaho	4	1	-	1,091	1,324	10	4	-	1	-	-	2
Wyo.	1	2	-	640	822	-	-	-	-	-	-	1
Colo.	7	43	-	6,811	7,329	17	7	2	-	2	2	9
N. Mex.	-	2	-	2,992	3,777	1	-	-	-	-	-	5
Ariz.	5	11	4	6,893	7,275	9	11	2	4	-	9	5
Utah	2	10	-	1,161	1,343	1	1	-	-	-	1	3
Nev.	-	-	-	3,713	4,555	2	1	-	3	-	-	-
PACIFIC	53	156	8	107,035	113,144	127	91	39	25	5	109	271
Wash.	3	13	1	8,269	9,726	2	3	-	1	3	15	14
Oreg.	-	-	4	5,748	6,724	27	4	6	4	-	1	11
Calif.	42	135	3	88,164	91,607	97	83	30	20	2	61	244
Alaska	1	-	-	2,819	2,908	1	-	-	-	-	-	-
Hawaii	7	8	-	2,035	2,179	-	1	3	-	-	32	2
Guam	U	-	-	103	118	U	U	U	U	U	-	2
P.R.	-	1	1	2,146	2,304	9	11	-	1	-	-	2
V.I.	U	-	-	212	239	U	U	U	U	U	-	-
Pac. Trust Terr.	U	-	-	-	388	U	U	U	U	U	-	-

U: Unavailable

TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending November 5, 1983 and November 6, 1982 (44th week)

Reporting Area	Measles (Rubeola)					Menin-gococcal Infections	Mumps			Pertussis			Rubella		
	Indigenous		Imported*		Total										
	1983	Cum. 1983	1983	Cum. 1983	Cum. 1982	Cum. 1983	1983	Cum. 1983	Cum. 1982	1983	Cum. 1983	Cum. 1982	1983	Cum. 1983	Cum. 1982
UNITED STATES	11	1,104	3	261	1,484	2,340	57	2,821	4,632	13	1,957	1,454	5	872	2,135
NEW ENGLAND	1	5	1	15	14	121	2	125	175	1	67	49	-	15	18
Maine	-	-	-	-	-	9	-	20	41	-	5	4	-	-	-
N.H.	-	-	-	3	3	6	-	22	18	-	9	4	-	4	10
Vt.	-	-	-	-	2	9	-	15	7	-	8	2	-	5	-
Mass.	1	4	1†	4	3	40	1	37	72	1	35	23	-	6	2
R.I.	-	-	-	-	-	9	1	15	16	-	5	11	-	-	1
Conn.	-	1	-	8	6	48	-	16	21	-	5	5	-	-	5
MID ATLANTIC	-	74	1	42	163	391	4	235	301	4	344	379	-	142	103
Upstate N.Y.	-	5	1†	11	112	125	4	92	79	4	114	204	-	30	49
N.Y. City	U	43	U	27	42	68	U	33	47	U	52	39	U	86	35
N.J.	-	26	-	1	5	66	-	44	47	-	19	22	-	3	18
Pa.	U	-	U	3	4	132	U	66	128	U	159	114	U	23	1
E.N. CENTRAL	9	648	-	58	77	423	17	1,278	2,373	-	407	300	2	117	190
Ohio	-	72	-	15	1	127	7	552	1,598	-	138	87	-	2	-
Ind.	-	402	-	4	2	49	-	38	40	-	54	20	-	23	29
Ill.	9	172	-	33	24	126	-	148	276	-	113	132	2	51	70
Mich.	-	2	-	5	50	77	10	460	338	-	39	23	-	16	49
Wis.	-	-	-	1	-	44	-	80	121	-	63	38	-	25	42
W.N. CENTRAL	-	1	-	7	49	140	5	158	586	1	119	74	1	41	60
Minn.	-	1	-	-	-	23	-	28	446	1	44	34	1	9	6
Iowa	-	-	-	-	-	17	-	40	35	-	6	8	-	-	-
Mo.	-	-	-	1	2	65	-	21	11	-	15	14	-	-	38
N. Dak.	-	-	-	-	-	4	-	1	-	-	2	-	-	-	-
S. Dak.	-	-	-	-	-	4	-	-	1	-	8	5	-	-	1
Nebr.	-	-	-	-	3	4	1	4	1	-	2	1	-	-	-
Kans.	-	-	-	6	44	23	4	64	92	-	42	12	-	32	15
S. ATLANTIC	-	173	-	31	110	484	5	201	283	1	224	252	-	97	88
Del.	-	-	-	-	-	11	-	8	12	-	5	6	-	-	1
Md.	-	6	-	4	3	48	3	41	30	-	17	66	-	3	34
D.C.	-	-	-	-	1	5	-	-	-	-	-	1	-	-	-
Va.	U	10	U	13	14	71	U	32	38	U	50	28	U	3	12
W. Va.	-	-	-	-	3	2	2	49	98	-	9	10	-	-	2
N.C.	-	-	-	1	1	98	-	12	20	-	27	44	-	10	2
S.C.	-	-	-	4	-	47	-	11	17	-	13	16	-	1	1
Ga.	-	8	-	-	-	76	-	48	22	-	61	38	-	13	16
Fla.	-	149	-	9	88	126	-	-	46	1	42	43	-	67	20
E.S. CENTRAL	-	1	-	5	9	138	-	54	57	-	34	49	-	17	46
Ky.	-	-	-	1	1	29	-	21	19	-	14	5	-	16	28
Tenn.	-	-	-	-	6	47	-	27	22	-	9	26	-	-	2
Ala.	-	1	-	4	2	40	-	2	9	-	5	5	-	1	-
Miss.	-	-	-	-	-	22	-	4	7	-	6	13	-	-	16
W.S. CENTRAL	-	39	-	35	153	245	4	237	213	3	424	93	2	123	117
Ark.	-	5	-	8	-	19	-	2	7	-	20	3	-	-	1
La.	-	-	-	25	2	46	-	45	6	-	12	21	-	13	1
Okla.	-	1	-	-	30	30	-	-	-	1	303	5	-	-	3
Tex.	-	33	-	2	121	150	4	190	200	2	89	64	2	110	112
MOUNTAIN	-	1	1	17	29	103	11	159	103	-	215	66	-	33	80
Mont.	-	-	-	3	-	21	1	6	4	-	1	1	-	6	5
Idaho	-	1	-	10	-	8	-	8	4	-	15	11	-	8	6
Wyo.	-	-	-	-	1	2	-	3	2	-	6	3	-	4	7
Colo.	-	-	1†	3	8	34	9	46	18	-	133	19	-	1	6
N. Mex.	-	-	-	-	-	7	-	-	-	-	14	7	-	-	6
Ariz.	-	-	-	1	17	18	1	83	48	-	24	21	-	6	16
Utah	-	-	-	-	3	12	-	8	20	-	22	4	-	7	22
Nev.	-	-	-	-	-	1	-	5	7	-	-	-	-	1	12
PACIFIC	1	162	-	51	880	295	9	374	541	3	123	192	-	287	1,433
Wash.	-	1	-	20	42	44	-	43	71	-	16	29	-	12	38
Oreg.	-	8	-	2	16	49	-	-	-	-	8	27	-	14	6
Calif.	1	152	-	27	816	193	8	298	440	3	92	108	-	259	1,376
Alaska	-	-	-	2	1	2	-	14	10	-	4	-	-	1	5
Hawaii	-	1	-	-	5	7	1	19	20	-	3	28	-	1	8
Guam	U	1	U	1	6	1	U	1	5	U	-	-	U	-	2
P.R.	-	94	-	-	133	11	2	123	90	-	13	21	-	6	12
V.I.	U	-	U	5	-	-	U	-	4	U	-	-	U	2	1
Pac. Trust Terr.	U	-	U	-	1	-	U	-	6	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable   U: Unavailable   †International   §Out-of-state

TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending November 5, 1983 and November 6, 1982 (44th week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1983	Cum. 1982	1983	1983	Cum. 1983	Cum. 1983	Cum. 1983	Cum. 1983	Cum. 1983
UNITED STATES	27,409	27,979	3	432	19,768	270	390	1,125	5,156
NEW ENGLAND	594	506	-	26	604	4	17	6	35
Maine	19	7	-	-	32	-	-	-	8
N.H.	20	5	-	-	31	-	-	1	5
Vt.	3	4	-	2	11	-	-	-	2
Mass.	376	340	-	17	322	3	13	2	14
R.I.	19	21	-	4	50	1	1	-	-
Conn.	157	129	-	3	158	-	3	3	6
MID ATLANTIC	3,506	3,779	-	21	3,525	1	68	26	218
Upstate N.Y.	267	406	-	15	598	1	9	6	70
N.Y. City	2,068	2,225	U	U	1,357	-	25	2	-
N.J.	695	549	-	6	739	-	28	8	24
Pa.	476	599	U	U	831	-	6	10	124
E.N. CENTRAL	1,364	1,647	-	81	2,693	4	58	81	448
Ohio	383	264	-	15	425	-	18	43	58
Ind.	105	174	-	5	298	-	3	14	30
Ill.	595	866	-	25	1,151	1	26	15	232
Mich.	203	257	-	33	676	1	10	7	19
Wis.	78	86	-	3	143	2	1	2	109
W.N. CENTRAL	336	468	-	12	606	82	11	59	729
Minn.	128	109	-	1	135	-	2	-	126
Iowa	20	29	-	-	53	-	-	-	177
Mo.	123	258	-	6	296	56	8	32	94
N. Dak.	2	7	-	-	6	-	-	1	75
S. Dak.	11	2	-	1	35	8	-	5	119
Nebr.	15	14	-	-	20	8	-	3	62
Kans.	37	49	-	4	61	10	1	18	76
S. ATLANTIC	7,509	7,674	1	76	4,003	13	55	469	1,859
Del.	31	20	-	-	55	-	-	4	5
Md.	494	416	1	4	312	5	8	39	697
D.C.	326	405	-	4	164	-	3	-	136
Va.	496	525	U	U	415	1	15	63	564
W. Va.	23	26	-	4	123	-	2	12	111
N.C.	740	624	-	19	606	6	4	201	26
S.C.	476	474	-	12	381	-	2	80	35
Ga.	1,316	1,592	-	-	715	1	2	65	189
Fla.	3,607	3,592	-	33	1,232	-	19	5	96
E.S. CENTRAL	1,864	1,924	-	36	1,757	17	10	106	337
Ky.	151	114	-	12	465	1	3	22	75
Tenn.	500	540	-	14	517	11	2	49	181
Ala.	736	730	-	7	453	-	2	24	81
Miss.	477	540	-	3	322	5	3	11	-
W.S. CENTRAL	7,101	7,343	-	76	2,371	111	53	363	928
Ark.	167	180	-	10	287	68	2	42	152
La.	1,465	1,623	-	-	314	4	3	1	27
Okla.	172	154	-	10	222	31	2	226	95
Tex.	5,297	5,386	-	56	1,548	8	46	94	654
MOUNTAIN	579	718	-	17	530	32	18	13	218
Mont.	7	5	-	-	42	5	1	6	66
Idaho	7	25	-	3	26	2	-	2	16
Wyo.	12	16	-	-	11	5	-	2	11
Colo.	139	188	-	5	73	10	1	-	23
N. Mex.	158	168	-	-	95	3	1	-	13
Ariz.	147	197	-	8	219	1	13	1	36
Utah	20	20	-	-	33	5	1	1	10
Nev.	89	99	-	1	31	1	1	1	43
PACIFIC	4,556	3,920	2	87	3,679	6	100	2	384
Wash.	163	146	-	1	205	2	4	-	2
Oreg.	123	93	-	1	154	2	3	-	1
Calif.	4,189	3,572	2	78	3,054	2	90	2	366
Alaska	12	14	-	-	65	-	-	-	15
Hawaii	69	95	-	7	201	-	3	-	-
Guam	-	1	U	U	5	-	-	-	-
P.R.	762	691	-	5	398	-	-	-	47
V.I.	17	26	U	U	2	-	-	-	-
Pac. Trust Terr.	-	-	U	U	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending November 5, 1983 (44th week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	687	466	152	38	15	16	60
Boston, Mass.	193	123	45	13	6	6	17
Bridgeport, Conn.	48	39	7	1	-	1	5
Cambridge, Mass.	21	18	3	-	-	-	-
Fall River, Mass.	27	22	4	1	-	-	-
Hartford, Conn.	64	38	16	6	2	2	-
Lowell, Mass.	25	21	4	-	-	-	2
Lynn, Mass.	22	19	3	-	-	-	3
New Bedford, Mass.	25	18	6	-	-	1	-
New Haven, Conn.	37	21	10	4	2	-	1
Providence, R.I.	76	45	23	3	2	3	11
Somerville, Mass.	10	6	4	-	-	-	2
Springfield, Mass.	31	22	5	3	-	1	4
Waterbury, Conn.	35	27	7	-	1	-	4
Worcester, Mass.	73	47	15	7	2	2	11
MID. ATLANTIC	2,483	2,027	232	69	57	72	93
Albany, N.Y.	47	37	8	1	-	1	1
Allentown, Pa.	12	10	2	-	-	-	-
Buffalo, N.Y.	124	78	31	7	3	5	7
Camden, N.J.	37	28	7	-	-	2	1
Elizabeth, N.J.§	28	28	-	-	-	-	1
Erie, Pa.†	39	28	9	2	-	-	2
Jersey City, N.J.	40	25	8	4	2	1	-
N.Y. City, N.Y.§	1,360	1,232	11	24	34	35	39
Newark, N.J.§	60	50	1	2	2	3	3
Paterson, N.J.	24	15	6	2	1	-	1
Philadelphia, Pa.†	250	158	58	16	5	13	13
Pittsburgh, Pa.†	63	38	20	1	2	2	3
Reading, Pa.	32	24	8	-	-	-	1
Rochester, N.Y.	138	104	23	3	5	3	13
Schenectady, N.Y.	26	18	5	2	-	1	-
Scranton, Pa.†	37	31	4	2	-	-	-
Syracuse, N.Y.	94	71	16	1	1	5	2
Trenton, N.J.	25	14	10	-	-	1	-
Utica, N.Y.	16	15	1	-	-	-	-
Yonkers, N.Y.	31	23	4	2	2	-	6
E.N. CENTRAL	2,382	1,562	532	136	75	77	87
Akron, Ohio	92	65	17	6	3	1	-
Canton, Ohio	42	27	12	3	-	-	6
Chicago, Ill.	615	397	147	39	15	17	15
Cincinnati, Ohio	158	93	44	11	3	7	10
Cleveland, Ohio	152	92	43	4	9	4	4
Columbus, Ohio	135	89	27	6	4	9	7
Dayton, Ohio	132	83	33	6	5	5	5
Detroit, Mich.	244	142	60	20	12	10	7
Evansville, Ind.	54	40	12	2	-	-	1
Fort Wayne, Ind.§	48	48	-	-	-	-	1
Gary, Ind.	23	9	6	7	1	-	-
Grand Rapids, Mich.	70	49	16	1	-	4	5
Indianapolis, Ind.	165	108	37	11	5	4	3
Madison, Wis.	41	25	10	2	2	2	7
Milwaukee, Wis.	111	85	17	2	5	2	2
Peoria, Ill.	37	19	10	3	-	5	2
Rockford, Ill.	42	34	7	1	-	-	3
South Bend, Ind.	53	40	7	3	1	2	4
Toledo, Ohio	104	77	14	3	6	4	5
Youngstown, Ohio	64	40	13	6	4	1	-
W.N. CENTRAL	695	465	137	38	15	35	45
Des Moines, Iowa	77	48	18	7	-	4	10
Duluth, Minn.	16	13	2	-	-	1	-
Kansas City, Kans.	41	28	4	6	1	2	1
Kansas City, Mo.	110	70	28	1	2	4	7
Lincoln, Nebr.	31	25	5	-	1	-	2
Minneapolis, Minn.	86	51	16	12	3	4	1
Omaha, Nebr.	65	44	16	4	1	-	6
St. Louis, Mo.	133	90	24	6	3	10	7
St. Paul, Minn.	66	48	12	2	1	3	1
Wichita, Kans.	70	48	12	-	3	7	10
S. ATLANTIC	1,191	708	297	100	42	44	41
Atlanta, Ga.	150	82	40	18	6	4	2
Baltimore, Md.	196	112	50	19	8	7	5
Charlotte, N.C.	56	32	15	5	2	2	-
Jacksonville, Fla.	94	53	33	4	2	2	5
Miami, Fla.	114	73	23	11	2	5	-
Norfolk, Va.	42	18	14	2	6	2	3
Richmond, Va.	60	37	14	5	-	4	7
Savannah, Ga.	57	35	10	7	3	2	6
St. Petersburg, Fla.	102	86	9	3	1	3	3
Tampa, Fla.	52	31	13	3	1	4	3
Washington, D.C.	209	107	67	16	10	9	7
Wilmington, Del.	59	42	9	7	1	-	-
E.S. CENTRAL	691	428	178	43	18	24	32
Birmingham, Ala.	104	56	30	6	5	7	1
Chattanooga, Tenn.	70	40	20	7	3	-	3
Knoxville, Tenn.	52	35	9	3	2	3	2
Louisville, Ky.	80	51	18	5	2	4	12
Memphis, Tenn.	151	105	34	10	1	1	6
Mobile, Ala.	62	38	16	3	2	3	4
Montgomery, Ala.	35	20	11	3	1	-	1
Nashville, Tenn.	137	83	40	6	2	6	3
W.S. CENTRAL	1,176	696	291	100	45	44	31
Austin, Tex.	48	34	8	5	1	-	2
Baton Rouge, La.	22	12	7	3	-	-	3
Corpus Christi, Tex.	41	24	9	4	3	1	3
Dallas, Tex.	205	114	55	20	11	5	-
El Paso, Tex.	54	41	10	1	1	1	2
Fort Worth, Tex.	75	37	15	10	3	10	2
Houston, Tex.	247	139	57	26	12	13	5
Little Rock, Ark.	73	46	17	3	2	5	2
New Orleans, La.	137	73	46	12	5	1	1
San Antonio, Tex.	157	105	35	9	3	5	8
Shreveport, La.	34	23	5	3	-	3	1
Tulsa, Okla.	83	48	27	4	4	-	2
MOUNTAIN	632	408	120	56	20	28	24
Albuquerque, N.Mex.	72	39	13	12	2	6	6
Colo. Springs, Colo.	32	19	7	2	4	-	5
Denver, Colo.	124	83	20	14	1	6	4
Las Vegas, Nev.	83	50	24	4	2	3	2
Ogden, Utah	15	11	2	1	-	1	1
Phoenix, Ariz.	143	99	23	13	4	4	3
Pueblo, Colo.	27	21	3	2	1	-	1
Salt Lake City, Utah	42	24	9	2	3	4	-
Tucson, Ariz.	94	62	19	6	3	4	2
PACIFIC	1,682	1,113	355	124	39	48	93
Berkeley, Calif.	17	10	6	-	-	1	1
Fresno, Calif.	63	41	14	4	3	1	3
Glendale, Calif.	16	16	-	-	-	-	1
Honolulu, Hawaii	45	27	12	4	-	2	8
Long Beach, Calif.	85	59	19	3	1	3	4
Los Angeles, Calif.	416	266	98	37	8	6	19
Oakland, Calif.	68	44	15	2	2	5	1
Pasadena, Calif.	21	17	2	1	-	1	2
Portland, Oreg.	130	94	14	11	5	5	10
Sacramento, Calif.	65	41	16	5	3	-	6
San Diego, Calif.	161	107	37	11	1	5	10
San Francisco, Calif.	155	94	37	15	3	5	4
San Jose, Calif.	168	103	35	16	10	4	11
Seattle, Wash.	153	108	29	8	2	6	6
Spokane, Wash.	53	42	7	2	-	2	4
Tacoma, Wash.	66	44	14	5	1	2	3
TOTAL	11,619††	7,873	2,294	704	326	388	506

* 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 4 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

TABLE V. Years of potential life lost, deaths, and death rates, by cause of death, and estimated number of physician contacts, by principal diagnosis, United States

Cause of morbidity or mortality (Ninth Revision ICD, 1975)	Years of potential life lost before age 65 by persons dying in 1981[1]	Estimated mortality June 1983 Number[2]	Estimated mortality June 1983 Annual Rate/100,000[3]	Estimated number of physician contacts June 1983[4]
ALL CAUSES (TOTAL)	9,879,590	157,890	822.7	101,300,000
Accidents and adverse effects (E800-E949)	2,587,140	7,770	40.5	5,700,000
Malignant neoplasms (140-208)	1,821,900	35,540	185.2	1,700,000
Diseases of heart (390-398, 402, 404-429)	1,621,290	59,740	311.3	5,900,000
Suicides, homicides (E950-E978)	1,403,560	3,590	18.7	—
Cerebrovascular diseases (430-438)	275,000	11,980	62.4	900,000
Chronic liver disease and cirrhosis (571)	267,350	2,020	10.5	100,000
Pneumonia and influenza[5] (480-487)	123,420	3,490	18.2	700,000
Chronic obstructive pulmonary diseases and allied conditions (490-496)	116,280	5,530	28.8	1,100,000
Diabetes mellitus (250)	105,960	2,650	13.8	2,600,000
Prenatal care[6]				2,600,000
Infant mortality[6]		2,900	9.8 /1,000 live births	

[1]Years of potential life lost for persons between 1 year and 65 years old at the time of death are derived from the number of deaths in each age category as reported by the National Center for Health Statistics, *Monthly Vital Statistics Report* (MVSR), Vol. 30, No. 13, December 20, 1982, multiplied by the difference between 65 years and the age at the mid-point of each category. As a measure of mortality, "Years of potential life lost" underestimates the importance of diseases that contribute to death without being the underlying cause of death.

[2]The number of deaths is estimated by CDC by multiplying the estimated annual mortality rates (MVSR Vol. 32, No. 7, October 18, 1983, pp. 8-9) and the provisional U.S. population in that month (MVSR Vol. 32, No. 6, September 21, 1983, p.1) and dividing by the days in the month as a proportion of the days in the year.

[3]Annual mortality rates are estimated by NCHS (MVSR Vol. 32, No. 7, October 18, 1983, pp. 8-9), using the underlying cause of death from a 10% systematic sample of death certificates received in state vital statistics offices during the month and population estimates from the Bureau of the Census.

[4]IMS America *National Disease and Therapeutic Index* (NDTI), Monthly Report, June 1983, Section III. This estimate comprises the number of office, hospital, and nursing home visits and telephone calls prompted by each medical condition based on a stratified random sample of office-based physicians (2,100) who record all private patient contacts for 2 consecutive days each quarter. The accuracy of the estimates is unknown, and the number provided should be used only as a gross indicator of morbidity.

[5]Data for "infectious diseases and their sequelae" as a cause of death and physician visits comparable to other multiple-code categories (e.g., "malignant neoplasms") are not presently available.

[6]"Prenatal care" (NDTI) and "Infant mortality" (MVSR Vol. 32, No. 6, September 21, 1983, p.1) are included in the table because "Years of potential life lost" does not reflect deaths of children <1 year.

Hemolytic-Uremic Syndrome — Continued

Virginia: Four cases have been reported; onsets occurred between September 14 and October 31, with prodromes consisting of nonbloody diarrhea in three and bloody diarrhea in one.

District of Columbia: Two cases occurred, one each on September 18 and September 27; both patients had vomiting and bloody diarrhea prodromes.

Reported by R Spitzer, MD, Upstate Medical Center, Syracuse, MR Kaplan, MD, New York Hospital, Cornell Medical Center, New York City, F Kaskel, MD, Stoneybrook, Long Island, B Gauthier, MD, Long Island Jewish Hospital, New Hyde Park, L Feld, MD, Children's Hospital of Buffalo, J Largent, MD, Albany Medical Center, H Cohen, MD, Strong Memorial Hospital, Rochester, R Rothenberg, MD, State Epidemiologist, New York State Dept of Health; W Harris, MD, Boston Children's Hospital, B Strechenberg, MD, Bay State Medical Center, Springfield, NJ Fiumara, MD, State Epidemiologist, Massachusetts State Dept of Health; RL Chevalier, MD, University of Virginia, Charlottesville, RS Buddington, MD, Johnston Memorial Hospital, Abingdon, GB Miller, MD, State Epidemiologist, Virginia State Dept of Health; GH Bock, MD, CC Porter, MD, EJ Ruley, MD, Children's Hospital National Medical Center, ME Levy, MD, State Epidemiologist, Dept of Human Svcs, Washington, DC; Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: First described in 1955, HUS is defined by the classic triad of microangiopathic hemolytic anemia, acute nephropathy, and thrombocytopenia (*1*). HUS is usually preceded by a prodromal gastrointestinal illness, or less commonly, an upper respiratory illness. The gastrointestinal illness consists of vomiting, bloody and/or nonbloody diarrhea, and abdominal cramps. Renal failure is common, often requiring dialysis; death has been reported in approximately 6%-10% of children (*2,3*).

HUS occurs primarily among white infants and children less than 5 years of age, with equal distribution among males and females. The disease has been reported with greatest frequency from California, Argentina, the Netherlands, and South Africa. Clusters of between nine and 14 cases have been reported from Sacramento, California (*4*), Canada (*5,6*), Wales (*7*), Bangladesh, and Central America (*8*). In one outbreak in Toronto, Canada, 13 children developed HUS following ingestion of fresh apple juice at a local fair. No common organism or toxin was isolated from children or juice (*5*).

Although the cause of HUS is unknown, both viral and bacterial pathogens have been associated with the illness. Enteroviruses, including Coxsackie A and B and echoviruses, have been reported, and several investigators have noted a summer-fall seasonality (*7,9,10*). Recently, Vero-toxin producing *Escherichia coli* were associated with 11 of 15 children with sporadic cases of HUS (*11*). *E. coli* 0157: H7, a rare serotype associated with hemorrhagic colitis (*12*), was isolated in two of these 11 cases, as well as in three others from the United Kingdom (*13*). Other bacterial pathogens isolated from patients with HUS include *Shigella* (*8*), *Campylobacter* (*14*), and *Yersinia* (*15*).

When investigating cases of HUS, stool specimens for viral and bacterial culture should be obtained as early as possible—preferably within 7 days of onset of the diarrheal illness. Specimens that will not be processed immediately should be stored at -70 C (-94 F).

The Division of Viral Diseases, Center for Infectious Diseases, CDC, is interested in obtaining reports of new and recent cases of HUS in children.

References

1. Kaplan BS, Thomson PD, de Chadarevian JP. The hemolytic uremic syndrome. Pediatr Clin of North Am. 1976;23:761-77.
2. Dolislager D, Tune B. The hemolytic-uremic syndrome: spectrum of severity and significance of prodrome. Am J Dis Child 1978;132:55-8.
3. Sorrenti LY, Lewy PR. The hemolytic-uremic syndrome: experience at a center in the Midwest. Am J Dis Child 1978;132:59-62.
4. CDC. Unpublished data.
5. Steele BT, Murphy N, Arbus GS, Rance CP. An outbreak of hemolytic uremic syndrome associated with ingestion of fresh apple juice. J Pediatr 1982;101:963-5.

Hemolytic-Uremic Syndrome — Continued

6. O'Regan S, Robitaille P, Mongeau JG, McLaughlin B. The hemolytic-uremic syndrome associated with ECHO 22 infection. Clin Pediatr 1980;19:125-7.
7. McLean MM, Jones CH, Sutherland DA. Haemolytic-uraemic syndrome: a report of an outbreak. Arch Dis Child 1966;41:76-81.
8. Koster F, Levin J, Walker L, et al. Hemolytic-uremic syndrome after Shigellosis: relation to endotoxemia and circulating immune complexes. N Engl J Med 1978;298:927-33.
9. Ray CG, Tucker VL, Harris DJ, Cuppage FE, Chin DY. Enteroviruses associated with the hemolytic-uremic syndrome. Pediatrics 1970;46:378-88.
10. Austin TW, Ray CG. Coxsackie virus group B infections and the hemolytic-uremic syndrome. J Infect Dis 1973;127:698-701.
11. Karmali MA, Petric M, Steele BT, Lim C. Sporadic cases of haemolytic-uraemic syndrome associated with faecal cytotoxin and cytotoxin-producing *Escherichia coli* in stools. Lancet 1983;1:619-20.
12. Riley LW, Remis RS, Helgerson SD, et al. Hemorrhagic colitis associated with a rare *Escherichia coli* serotype. N Eng J Med 1983;308:681-5.
13. Hemolytic-uremic syndrome. Communicable disease report, weekly edition, CDR 83/36, Sept 9, 1983.
14. Chamovitz BN, Hartstein AI, Alexander SR, Terry AB, Short P, Katon R. *Campylobacter jejuni*-associated hemolytic-uremic syndrome in a mother and daughter. Pediatr 1983;71:253-6.
15. Prober CG, Tune B, Hoder L. Yersinia pseudotuberculosis septicemia. Am J Dis Child 1979;133:623-4.

Schistosomiasis among River Rafters — Ethiopia

On October 20, 1982, 4 days after returning from a rafting trip down the Omo River in Ethiopia, a Colorado resident noted the onset of a low-grade, intermittent fever and myalgias. His symptoms persisted, but he did not seek medical attention. However, in early February 1983, a call from another rafter, in whom schistosomiasis had just been diagnosed, prompted him to visit his physician. Stool examination revealed eggs of *Schistosoma mansoni*, and his serum was positive by the indirect immunofluorescent (IIF) test for schistosomiasis.

CDC and the Colorado Department of Health were independently informed of several other possible cases of acute schistosomiasis mansoni among other participants. Three tour guides had schistosomiasis mansoni diagnosed by stool examination after the trip, and they were symptomatic, with intermittent fever, cough, lethargy, and myalgias associated with an absolute eosinophilia ($\geq$ 600/mm^3). A fourth guide had developed a 1-cm diameter, nontender, firm mass on her left buttock but had an absolute eosinophila count of 408/mm^3 and was otherwise asymptomatic. Her stool examination revealed eggs of *S. mansoni*. The mass was not biopsied but resolved 6 days after treatment with praziquantel.

There were two separate raft trips; the first from September 19 to October 16, and the second from October 27 to December 4. Both followed the same route down the Omo River as another trip that led to an outbreak of schistosomiasis a year earlier (*1*). Participants had been made aware of the possibility of contracting schistosomiasis by the tour organization. Thirty people participated in one or both trips, and all four U.S.-based river guides were on both trips. Attempts were made to contact all participants except five staff from the Ethiopian office. Four non-U.S. citizens and one U.S. citizen could not be located. Of 20 participants contacted, 19 had stool and serologic examinations performed and completed a questionnaire concerning exposure; one with a positive IIF test but four negative stool examinations and a negative rectal biopsy is excluded from further analysis. Seven (39%) of the 18 participants had *S. mansoni* infection confirmed by stool examinations, and 11 (61%) were negative on testing three or more stools and had negative IIF tests.

Schistosomiasis – Continued

All seven infected and two uninfected rafters developed an illness during or after the raft trips. Six of the seven infected persons had onset of a febrile illness, with eosinophilia consistent with acute schistosomiasis, within 3 weeks after a trip; the seventh was the guide who developed the soft tissue mass. Quantitative stool examinations of three infected participants revealed relatively light infections with 26, 24, and 18 eggs per gram.

Two persons with schistosomiasis also had confirmed *Plasmodium vivax* malaria. Of the two uninfected participants who became ill, one developed diarrhea, which resolved with metronidazole during the trip. The second developed confirmed *P. vivax* malaria in March 1983. Finally, stool from one asymptomatic participant had cysts of *Entameba histolytica*.

No specific site of exposure could be identified. Most participants took few or no precautions other than toweling-off, despite an awareness of the risk of acquiring schistosomiasis. However, those who towel-dried most of the time after water exposure had a significantly reduced likelihood of infection; eight of 11 of the noninfected and one of seven of the ill towel-dried after water exposure during the last third of either trip ($p = 0.02$).

Reported by J Sisson, MD, Salt Lake City, C Nichols, MPA, Utah State Dept of Health; R Hopkins, MD, State Epidemiologist, Colorado State Dept of Health; Div of Field Svcs, Epidemiology Program Office, Helminthic Diseases Br, Div of Parasitic Diseases, Center for Infectious Diseases, CDC.

Editorial Note: This outbreak of acute schistosomiasis mansoni resembles an outbreak that occurred in 1981 (*1*). The unusual presentation of schistosomiasis as a subcutaneous mass has been previously described with *S. japonicum*, *S. mansoni*, and *S. hematobium*. While the present case was not parasitologically confirmed, the rapid resolution of the mass after praziquantel therapy suggests that it was schistosomal.

With multiple potential sites of exposure along the route, the exact mode and site of exposure could not be distinguished. For such an activity, exposure would be difficult to avoid, and such measures as chemically treating or heating water before bathing would not always be possible. Nevertheless, epidemiologic data gathered on these trips imply that towel-drying after exposure to infested water can markedly reduce the risk of infection supporting the recommendations that this is a useful protective measure (*2*).

References

1. CDC. Cercarial dermatitis among bathers in California; Katayama syndrome among travelers in Ethiopia. MMWR:31:435-8.
2. Schistosomiasis. In: Control of communicable diseases in man. Twelfth edition. Benenson AS, ed. American Public Health Association, 1975:282-4.

Dengue – Mexico, El Salvador, Honduras

During the past 4 months, increased dengue activity has been reported in Mexico, El Salvador, and Honduras.

Mexico: In late June and early July 1983, increased numbers of cases of dengue-like illness were reported from Puebla in the state of Puebla, Mexico. In subsequent weeks, outbreaks of dengue-like illness became widespread, with reports on the Pacific coast from Chiapas in the south to Jalisco in the north. In addition, cases were reported from Veracruz and Yucatan on the east coast of the country.

Through week 32, 3,527 cases were reported to Mexican health authorities. The largest numbers were reported from the states of Oaxaca (759), Guerrero (725), and Michoacan (542) on the Pacific coast and Yucatan (592) and Veracruz (286) on the east coast. Additional cases have been reported from Chiapas, Puebla, Morelos, and Jalisco. Several of the out-

Dengue — Continued

breaks have occurred in cities that had not previously reported dengue. The reports indicate that dengue transmission is widespread in Mexico.

Clinically, the illness has presented as classical dengue. According to Mexican health authorities, a few cases of severe disease reported in some parts of the Isthmus of Tehuantepec, Oaxaca, were not confirmed as dengue.

The serotypes responsible for all the outbreaks are not known, but serologic and virologic data from the Institute of Public Health and Tropical Diseases in Mexico City have shown that dengue 1 is responsible for some. Thus, three dengue 1 viruses were isolated from patients in Puebla, with onsets in July. The identification of these isolates was confirmed by CDC. Three additional virus isolations have been made—two from Puebla and one from Tapachula, Chiapas; identification is pending. Serologic conversions to dengue have been confirmed in 30.5% of cases tested by the laboratory in Mexico City.

El Salvador: In late June and early July, increased numbers of cases of dengue-like illness were reported in San Salvador, El Salvador. The illness was generally mild and of the classical type. No hemorrhagic manifestations were reported.

Ministry of Health officials collected blood samples from 14 patients who had onset in late June or the first week of July. Convalescent samples were subsequently collected from 10 of these patients and sent to CDC for testing. Of the 10 paired sera, seven showed a fourfold or greater rise in hemagglutination inhibition (HI) and complement fixation (CF) antibodies to dengue between acute- and convalescent-phase samples. Five of the seven patients had primary serologic responses, which were monotypic for dengue 4. The others, as well as a patient with a single, late acute sample, had secondary serologic responses. Dengue 4 virus has been isolated from the acute sera of two patients, one with a primary dengue infection, the other with a serologically confirmed secondary dengue infection.

Through August, 2,867 dengue cases were reported in El Salvador, with the majority reported in July and August; numbers are not available for September. The cases were reported from all areas of the country, with most (1,005) reported from the eastern region bordering Honduras. Although laboratory data are limited, seven of the 10 patients with paired sera from San Salvador were positive for dengue. Such a high rate of case confirmation is usually only observed during periods of epidemic transmission.

Honduras: Dengue 1 has recently been confirmed serologically in Honduras by the Department of Microbiology, Universidad Nacional Autonoma de Honduras. No information is available as to the patient's residence or date of onset. Reports suggest, however, that dengue-like illnesses have increased in San Pedro Sula since July, but no specimens or information on numbers of cases are available.

Reported by L Cabrera-Coello, MD, Subdirector de Vigilancia y Epidemiologia, Secretaria de Salubridad y Asistencia, Mexico City, E Zorilla, MD, Director, ML Zarate de Guaneros, MD, Head, Virology Dept, Instituto de Salubridad y Enfermedades Tropicales, Mexico City, Mexico; R Hernandez, MD, Chief, JL Guzman, MD, Assistant Chief, Div of Epidemiology, Ministry of Health, A Lago, MD, Epidemiologist, OPS/OMS, El Salvador; M Figueroa, MD, Dept of Microbiology, Universidad Nacional Autonoma de Honduras, Honduras; Dengue Br, Div of Vector-Borne Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: These reports indicate that both dengue 1 and 4 are still active in Mexico and Central America. Additionally, serologic and virologic data suggest that dengue 2 is also being transmitted in the region.

Both Mexico and El Salvador experienced dengue epidemics in the summer of 1982. In Mexico, available evidence suggested most activity was then due to dengue 1, as it is now. This is supported by the fact that the 1983 epidemics are in different cities and states than those reported in 1982. The virus serotype responsible for the 1982 epidemic in El Salvador

Dengue — Continued

was not confirmed virologically, but serologic evidence of dengue 4 was obtained from an American traveler to the country at that time. The 1983 epidemic in San Salvador appears due to this serotype as well.

Although detailed information is not available from Honduras, the fact that most reported cases from El Salvador have been from the eastern region bordering Honduras and that there has been increased activity reported in San Pedro Sula suggests widespread activity in that country as well. Health authorities in Guatemala have not reported increased dengue activity in that country.

Persons traveling to these countries should be made aware of possible dengue infection and should take routine precautions against mosquitoes.

The *Morbidity and Mortality Weekly Report* is prepared by the Centers for Disease Control, Atlanta, Georgia, and available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE / CENTERS FOR DISEASE CONTROL
ATLANTA, GEORGIA 30333
OFFICIAL BUSINESS

Postage and Fees Paid
U.S. Department of HHS
HHS 396

U.S.MAIL

S 6HCRH3MCDJ73 8129 X
JOSEPH MC DADE PHD
LEGIONNAIRE ACTIVITY
LEPROSY & RICKETTSIAL BR
VIROLOGY DIV, CID
7-85

HHS Publication No. (CDC) 84-8017