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Epidemiologic Notes and Reports

Cryptosporidiosis: Assessment of Chemotherapy of Males with Acquired Immune Deficiency Syndrome (AIDS)

Since December 1979, 21 males with severe, protracted diarrhea caused by the parasite, *Cryptosporidium*, have been reported to CDC by physicians in Boston, Los Angeles, Newark, New York, Philadelphia, and San Fransisco. All 21 have acquired immune deficiency syndrome (AIDS); 20 are homosexual; and one is a heterosexual Haitian. Their ages range from 23 to 62 years with a mean of 35.7 years. Most had other opportunistic infections or Kaposi's sarcoma in addition to cryptosporidiosis. Eleven had *Pneumocystis carinii* pneumonia (PCP); nine had Candida esophagitis; two had a disseminated *Mycobacterium avium-intracellulare* infection; one had a disseminated cytomegalovirus infection; and two had Kaposi's sarcoma. T-lymphocyte helper-to-suppressor ratios were decreased (< 0.9) in all 18 patients on whom this test was performed. Fourteen patients have died.

The illness attributed to *Cryptosporidium* was characterized by chronic, profuse, watery diarrhea. The mean duration of diarrhea was 4 months, often continuing until the patient's death. Bowel movement frequency ranged from six to 25 per day. The estimated maximum volume of stool during illness ranged from 1 to 17 liters per day with a mean of 3.6 liters per day. Diagnosis of cryptosporidiosis was made by histologic examination of small bowel biopsies (13 patients) or large bowel biopsies (four patients), or by stool examination using a sucrose concentration technique (16 patients) (*1*). More than one type of diagnostic method was positive for several patients.

Table 1 shows the drugs given to the 21 patients while they had diarrhea attributed to *Cryptosporidium*. Only two patients (9.5%) have had sustained resolution of their diarrhea with negative follow-up stool examinations. The first was being treated with prednisone (60 mg daily) for chronic active hepatitis at the time his diarrhea began. When cryptosporidiosis was diagnosed, he was started on diloxanide furoate (500 mg three times daily for 10 days), and the prednisone was tapered over 2 weeks and then stopped. Two weeks later, his diarrhea was improving; in another 2 weeks, his diarrhea had completely resolved. He has had no diarrhea for 8 months. Follow-up stool examinations 2 weeks and 6 weeks after discontinuation of diloxanide furoate were negative for *Cryptosporidium*.

The second patient, who also had a clinical and parasitologic response, subsequently died of PCP. In early February 1982, 6 months before his death, he had onset of watery diarrhea, and a small bowel biopsy showed *Cryptosporidium*. Treatment with furazolidone (100 mg four times a day) was initiated on May 5, and within 6 days, the patient had gained 1.1 kilograms (2.4 pounds); parenteral nutrition was discontinued, although he continued to produce a liter of watery stool each day. Ten days after treatment was started, his stools became formed for the first time in 4 months, but *Cryptosporidium* oocysts were still present. Furazolidone was increased to 150 mg four times daily. Twenty days after therapy was started (10

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days after the higher dose of furazolidone was begun), the patient had one bowel movement a day, but his stool was still positive for *Cryptosporidium* and remained positive despite continued use of furazolidone at 150 mg four times daily for a total of 2 months. At that time, two stool examinations failed to detect oocysts, and the furazolidone was stopped. One week later, the patient developed PCP; despite treatment with trimethoprim-sulfamethoxazole, he died 2 weeks later on July 22. An autopsy was not permitted.

After various treatment regimens, seven patients have had partial or transitory decreases in their diarrhea. Two received no anti-parasitic drugs. A third patient temporarily improved after treatment with furazolidone (100 mg orally four times a day for 7 days), although 2 weeks elapsed between the end of treatment with furazolidone and the onset of clinical improvement. The patient's diarrhea abated, but follow-up stool examinations remained posi-

TABLE 1. Drugs used to treat males with cryptosporidiosis and AIDS

Drug*	Dose and route of administration†	Number of patients	Unchanged n	Unchanged (%)	Improved§ n	Improved§ (%)	Cured¶ n	Cured¶ (%)
No treatment	—	2	0	(0.0)	2	(100.0)	0	(0.0)
Trimethoprim/ sulfamethoxazole	25 mg/kg QID of sulfamethoxazole	7	7	(100.0)	0	(0.0)	0	(0.0)
Trimethoprim/ sulfamethoxazole	800 mg PO BID of sulfamethoxazole	4	4	(100.0)	0	(0.0)	0	(0.0)
Furazolidone	100 mg PO QID	6	4	(66.7)	1	(16.7)	1	(16.7)
Furazolidone	300 mg PO QID	1	1	(100.0)	0	(0.0)	0	(0.0)
Metronidazole	750 mg PO TID	5	4	(80.0)	1	(20.0)	0	(0.0)
Metronidazole	750 mg IV TID	1	0	(0.0)	1	(100.0)	0	(0.0)
Pyrimethamine/ sulfa	25 mg PO per day of pyrimethamine	4	4	(100.0)	0	(0.0)	0	(0.0)
Diloxanide furoate	500 mg PO TID	3	2	(66.7)	0	(0.0)	1**	(33.3)
Quinacrine	100 mg PO TID	3	3	(100.0)	0	(0.0)	0	(0.0)
Diiodohydroxyquin	650 mg PO TID	2	2	(100.0)	0	(0.0)	0	(0.0)
Tetracycline	500 mg PO QID	3	1	(33.3)	2	(66.6)	0	(0.0)
Doxycycline	100 mg PO per day	2	2	(100.0)	0	(0.0)	0	(0.0)
Pentamidine	4 mg/kg IM per day	2	2	(100.0)	0	(0.0)	0	(0.0)
Chloroquine/ primaquine	500 mg PO per day of chloroquine	1	1	(100.0)	0	(0.0)	0	(0.0)

*Some patients received more than one drug.

†BID = twice daily; TID = three times daily; QID = four times daily; PO = orally; IV = intravenously

§Decrease in number of stools by at least 50%.

¶Absence of diarrhea for more than 2 weeks and stool examination negative for *Cryptosporidium*.

**Improvement temporally related to stopping prednisone.

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tive for *Cryptosporidium*. Three months after furazolidone therapy, he again developed diarrhea, and his stools were positive for *Cryptosporidium*. Two patients had less diarrhea when given tetracycline. The first received tetracycline 500 mg orally four times a day for 4 months. His diarrhea decreased from 12 watery stools to three loose stools per day, but stool examination after 4 months of therapy still showed *Cryptosporidium*. The second patient, given the same treatment, also had a reduction in the number of stools. When the drug was discontinued, his diarrhea again increased.

Two patients' diarrhea stopped following treatment with opiates and metronidazole, given orally in one case and intravenously in the other. Neither patient had diarrhea after a few days of treatment, but both died within 1 week, and autopsies were not allowed. The first patient died from suspected peritonitis; the second died with disseminated Kaposi's sarcoma and pneumonia.

The remaining 12 patients have had continuous, severe diarrhea. In addition to the drugs listed in Table 1, bovine-transfer factor has been given to one patient and intravenous gamma globulin to two patients; neither was effective. At present, 14 (66.7%) of the 21 individuals have died, and six are alive with persistent diarrhea. In no instance was cryptosporidiosis thought to be the direct cause of death, but the associated severe malnutrition was often considered a contributing factor.

Shortly before cryptosporidiosis was recognized in AIDS patients, investigators at the U.S Department of Agriculture National Animal Disease Center (NADC) began testing drugs for efficacy against *Cryptosporidium* in animals; results of these initial studies were published in February, 1982 (*2*). More recently, five additional drugs have been evaluated at the NADC. Calves or pigs up to 14 days old without infection were given the drugs orally twice daily. One day after the drugs were started, each animal received a single oral inoculation of *Cryptosporidium*. The following drugs (with doses in mg/kg/day) were tested: amprolium (10.7), difluoromethylornithine (1250) plus bleomycin (6 IM), diloxanide furoate (125.0), dimetridazole (19.0), ipronidazole (23.8), lasalocid (0.7), metronidazole (23.8), monensin (4.8), oxytetracycline (50.0), pentamidine (10.0), quinacrine (11.9), salinomycin (6.0), sulfaquinoxaline (200.0), sulfadimidine (119.0), and trimethoprim (4.8) plus sulfadiazine (23.8). Although small numbers of animals were tested in each treatment group, no drugs prevented fecal shedding of oocysts or reduced the number of *Cryptosporidium* seen on intestinal biopsies.

Reported by J Goldfarb, MD, H Tanowitz, MD, Albert Einstein College of Medicine, Bronx, R Grossman, MD, Medical Arts Center Hospital, C Bonanno, MD, D Kaufman, MD, P Ma, PhD, St. Vincent's Medical Center, R Soave, MD, New York Hospital-Cornell Medical Center, D Armstrong, MD, J Gold, MD, Memorial Sloan-Kettering Cancer Center, S Dikman, MD, M Finkel, MD, H Sacks, MD, Mt. Sinai Medical Center, R Press, MD, New York University Medical Center, D William, MD, St. Luke's-Roosevelt Hospital, S Friedman, MD, New York City Dept of Health, R Rothenberg, MD, State Epidemiolgist, New York State Dept of Health; S Brown, MD, United Hospitals, Newark, WE Parkin, DVM, State Epidemiologist, New Jersey State Dept of Health; EJ Bergquist, MD, Thomas Jefferson University Hospital, Philadelphia, CW Hays, MD, State Epidemiologist, Pennsylvania State Dept of Health; P Forgacs, MD, Lahey Clinic Medical Center, Burlington, L Weinstein, MD, Brigham and Women's Hospital, Boston, NJ Fiumara, MD, State Epidemiologist, Massachusetts State Dept of Public Health; D Busch, MD, San Francisco, M Derezin, MD, M Gottlieb, MD, J Matthew, MD, W Weinstein, MD, UCLA Center for Health Sciences, J Chin, MD, State Epidemiologist, California Dept of Health Svcs; H Moon, PhD, National Animal Disease Center, Ames, Iowa; AIDS Activity, Div of Parasitic Diseases, Center for Infectious Diseases, CDC.

Editorial Note: *Cryptosporidium* is a protozoan parasite; it is a well recognized cause of diarrhea in animals, especially calves, but has only rarely been associated with diarrhea in humans (*3*). Individuals with normal immune function who have developed cryptosporidiosis have

Cryptosporidiosis — Continued

self-limited diarrhea lasting 1-2 weeks, but immunosuppressed individuals have developed chronic diarrhea. An effective drug to treat cryptosporidiosis has not been identified, and the above reports are equally discouraging. Of seven patients who are still living, only one has no diarrhea at present. His recovery coincided with treatment with diloxanide furoate and discontinuation of prednisone. It seems unlikely that diloxanide furoate was responsible for his recovery, since three other patients who received the drug did not respond, and the drug was ineffective in experimentally infected pigs given nearly six times the recommended human dose. It is similarly difficult to be certain that improvement reported in other patients was due to the drugs they received because only a few patients receiving a drug responded, responses were brief, and the same or similar drugs were ineffective in preventing infection in experimental animals. The difficulty in interpreting isolated responses is underscored by the two patients who improved before any specific therapy began.

Since none of the drugs reported above appears clearly efficacious, additional tests of other anti-parasitic drugs in animals are needed. Until an effective drug for cryptosporidiosis is identified or the underlying immune deficiency in patients with AIDS becomes correctable, management of diarrhea due to cryptosporidiosis will continue to focus on supportive care.

References

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2. Moon HW, Woode GN, Ahrens FA. Attempted chemoprophylaxis of cryptosporidiosis in calves. Vet Rec 1982; 110:181.
3. CDC. Human cryptosporidiosis—Alabama. MMWR 1982; 31:252-4.

Rabies — Mid-Atlantic States

An increased number of rabies cases among wild raccoons has recently been reported from the mid-Atlantic states (Maryland, Pennsylvania, Virginia, West Virginia) (Table 2). The disease is primarily concentrated in an eight-county area encompassing northern Virginia, western Maryland, and southcentral Pennsylvania (Table 3). One case has also been reported in Washington, D.C.

A single raccoon from eastern West Virginia was reported rabid in 1977—the first case in the area. Rabid raccoons were reported from contiguous counties in Virginia and West Virginia during 1978-1980; since then, the outbreak has grown to encompass several adjacent counties in Maryland and Pennsylvania. Between January 1 and October 15, 1982, 432 rabid raccoons had been reported from Virginia, 35 from Maryland, 23 from Pennsylvania, and 15 from West Virginia. Rabies among dogs and cats has also been reported. The first case of

TABLE 2. Raccoon rabies — mid-Atlantic states

	1977	1978	1979	1980	1981	1982*
Maryland	0	0	0	0	7	35
Pennsylvania	0	0	0	0	0	23
Virginia	0	3	4	7	102	432
West Virginia	1	0	8	14	22	15
U.S. total				394	481	700

*Through October 15, 1982

Rabies — Continued

rabies in a raccoon in Washington, D. C., was reported on October 27, 1982. Within the raccoon-outbreak area, rabid skunks, bats, and foxes have been reported during the last 12 months (Table 4).

Reported by E Israel, MD, State Epidemiologist, Maryland State Dept of Health and Mental Hygiene; CW Hays, MD, State Epidemiologist, Pennsylvania State Dept of Health; GB Miller, Jr, MD, State Epidemiologist, Virginia State Dept of Health; LE Haddy, MS, State Epidemiologist, West Virginia State Dept of Health; ME Levy, MD, State Epidemiologist, District of Columbia Dept of Human Svcs; Viral and Rickettsial Zoonoses Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: The pattern of rabies among raccoons in the mid-Atlantic states represents a significant departure from the pattern seen in the United States during the last 10 years. In most of the country, raccoon rabies occurs as sporadic, isolated cases. However, in the southeastern states—Alabama, Florida, Georgia, and South Carolina—raccoons are the major rabies reservoir, and raccoon rabies occurs as an enzootic or epizootic disease. As recently as 1980, 90% of all raccoon rabies in the United States was reported from these four states; Georgia alone reported 208 cases (53% of the total that year). So far in 1982, Virginia has reported 62% of all raccoon rabies in the United States. Thus, in a two-year span, Virginia has reported a > 60-fold increase in raccoon rabies.

Local, state, and federal health agencies are cooperating to study the spread of the outbreak by intensifying rabies surveillance activities in the affected areas. Health agencies are also cooperating to educate the public to the risk of exposure to wild animals in rabies-affected areas, to the necessity for keeping rabies immunizations for pet dogs and cats current, and to the importance of seeking medical attention if bitten or exposed to wild animals.

There is no known technique for effectively eliminating rabies in wildlife, but research concerning the understanding and control of the disease in wild animal populations is underway. No human rabies case has ever been known to result from a raccoon bite.

TABLE 3. Raccoon rabies by county, January 1-October 15, 1982 — mid-Atlantic states

MARYLAND		**VIRGINIA**	
Allegheny	25	Loudoun	212
Montgomery	5	Fairfax	138
Washington	5	Fauquier	34
Total	35	Prince William	33
		Culpeper	6
PENNSYLVANIA		Frederick	4
Bedford	17	Arlington	2
Bucks	2	Augusta	1
Montgomery	3	Rockingham	1
Sullivan	1	Madison	1
Total	23	Total	432

TABLE 4. Animal rabies, January 1-October 15, 1982 — Maryland, Virginia

	MARYLAND	VIRGINIA
Raccoons	35	432
Skunks	6	35
Bats	17	9
Foxes	1	11
Dogs	0	2
Cats	0	8
Other	1*	6†

*cow

†5 groundhogs, 1 ferret

Perspectives in Disease Prevention and Health Promotion

Homicide — United States

In 1981, the Federal Bureau of Investigation's Uniform Crime Reporting System (FBI-UCR) estimated that 22,516 instances of homicide occurred in the United States (*1*).* The rate was 9.8 per 100,000 population, representing a 3.9% decrease from the 1980 homicide rate. An estimated 591,007 potential years of working life were lost in 1981 due to homicide (*2*).

From 1977 to 1980, the homicide rate gradually increased, but since the end of 1980, the trend has leveled off (*1*). As in previous years, the South experienced the highest homicide rate—13 homicides per 100,000 population. The West had a rate of 10/100,000, while the Northeast and the North Central region had homicide rates of approximately 8 and 7/100,000, respectively (*1*).

In 1981, the FBI-UCR estimated that 77% of homicide victims were male. Approximately 54% were white, 44% black, and 2% of other races. Fifty-nine percent were less than 35 years of age (*1*).

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*Homicide is defined as the willful (non-negligent) killing of one human being by another, but does not include justifiable homicide, which is the killing of a felon by law enforcement officers in the line of duty or by private citizens.

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

Disease	44th Week Ending			Cumulative, First 44 Weeks		
	November 6, 1982	November 7, 1981	Median 1977-1981	November 6, 1982	November 7, 1981	Median 1977-1981
Aseptic meningitis	260	211	211	7,624	8,243	6,580
Brucellosis	3	2	2	140	143	153
Encephalitis: Primary (arthropod-borne & unspec.)	25	33	27	1,205	1,271	1,020
Post-infectious	4	1	3	54	80	186
Gonorrhea: Civilian	18,962	20,158	20,510	809,053	852,145	850,236
Military	396	552	552	22,340	23,789	23,221
Hepatitis: Type A	411	429	575	18,962	21,201	24,737
Type B	416	387	340	18,026	17,264	13,889
Non A, Non B	57	N	N	1,937	N	N
Unspecified	148	192	192	7,482	9,136	8,752
Legionellosis	4	N	N	438	N	N
Leprosy	4	1	2	169	215	149
Malaria	9	26	17	895	1,210	645
Measles (rubeola)	8	14	89	1,499	2,753	13,104
Meningococcal infections: Total	51	39	39	2,477	2,965	2,205
Civilian	51	39	39	2,464	2,954	2,185
Military	-	-	-	13	11	16
Mumps	71	96	176	4,562	3,751	12,017
Pertussis	29	21	34	1,415	1,060	1,456
Rubella (German measles)	27	18	46	2,138	1,883	11,053
Syphilis (Primary & Secondary): Civilian	655	717	502	27,849	26,181	21,056
Military	13	4	4	379	329	264
Tuberculosis	525	552	547	21,704	22,933	23,292
Tularemia	5	5	5	225	236	173
Typhoid fever	4	10	10	339	505	442
Typhus fever, tick-borne (RMSF)	9	10	8	947	1,144	1,080
Rabies, animal	112	105	75	5,327	6,341	4,376

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1982		Cum. 1982
Anthrax	-	Poliomyelitis: Total	4
Botulism	71	Paralytic	4
Cholera	-	Psittacosis (Ariz. 1)	103
Congenital rubella syndrome	5	Rabies, human	-
Diphtheria	2	Tetanus	68
Leptospirosis (Ohio 1, Mo. 1, Fla. 2, Tex. 1, Hawaii 1)	61	Trichinosis (Md. 1)	78
Plague	18	Typhus fever, flea-borne (endemic, murine)	38

TABLE III. Cases of specified notifiable diseases, United States, weeks ending November 6, 1982 and November 7, 1981 (44th week)

Reporting Area	Aseptic Meningitis	Brucellosis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	1982	Cum. 1982	Cum. 1982	Cum. 1982	Cum. 1982	Cum. 1981	1982	1982	1982	1982	1982	Cum. 1982
UNITED STATES	260	140	1,205	54	809,053	852,145	411	416	57	148	4	169
NEW ENGLAND	22	3	50	6	19,569	20,903	5	14	2	9	-	1
Maine	3	-	-	-	1,008	1,126	1	-	-	-	-	-
N.H.	3	-	8	-	644	762	1	-	-	-	-	-
Vt.	-	-	-	-	367	374	-	-	-	-	-	-
Mass.	3	-	20	-	8,767	8,821	1	5	1	9	-	-
R.I.	5	-	-	1	1,308	1,238	-	2	-	-	-	-
Conn.	8	3	22	5	7,475	8,582	2	7	1	-	-	1
MID. ATLANTIC	37	3	120	14	102,947	102,782	71	87	5	13	1	9
Upstate N.Y.	13	3	50	3	17,092	17,890	14	16	1	3	-	1
N.Y. City	6	-	17	-	41,915	42,040	17	23	-	3	-	6
N.J.	8	-	21	-	18,940	19,459	11	20	4	3	1	1
Pa.	10	-	32	11	25,000	23,393	29	28	-	4	-	1
E.N. CENTRAL	50	4	307	10	111,366	127,021	31	46	1	7	1	7
Ohio	25	1	116	4	30,893	39,942	17	21	1	5	1	-
Ind.	6	-	83	3	13,924	10,736	4	3	-	-	-	-
Ill.	1	2	15	1	28,578	36,735	3	2	-	1	-	6
Mich.	18	1	64	-	27,705	27,985	7	20	-	1	-	-
Wis.	-	-	29	2	10,266	11,623	-	-	-	-	-	1
W.N. CENTRAL	7	16	87	4	38,152	40,994	9	16	-	2	-	5
Minn.	-	1	27	1	5,554	6,515	2	1	-	-	-	3
Iowa	4	5	43	1	4,035	4,525	-	1	-	1	-	-
Mo.	1	4	7	-	18,145	18,962	-	5	-	1	-	1
N. Dak.	-	-	-	-	498	517	-	-	-	-	-	-
S. Dak.	-	1	-	1	1,009	1,098	-	-	-	-	-	1
Nebr.	2	2	5	-	2,306	3,040	-	5	-	-	-	-
Kans.	-	3	5	1	6,605	6,337	7	4	-	-	-	-
S. ATLANTIC	42	25	178	8	213,113	209,772	51	77	13	13	2	10
Del.	-	-	-	-	3,570	3,351	1	-	-	1	-	-
Md.	3	-	22	-	26,473	25,033	2	11	3	2	-	3
D.C.	-	-	-	-	12,899	11,841	-	-	-	-	-	-
Va.	2	8	35	1	17,077	19,249	-	8	2	2	-	1
W. Va.	1	-	16	-	2,368	3,157	2	2	1	-	-	-
N.C.	9	-	26	1	33,883	32,437	4	8	-	2	-	-
S.C.	1	2	2	-	20,582	20,383	7	7	-	1	-	-
Ga.	1	3	14	-	41,577	43,505	12	15	1	2	-	1
Fla.	25	12	63	6	54,684	50,816	23	26	6	3	2	5
E.S. CENTRAL	6	12	60	2	70,545	71,094	16	13	2	1	-	-
Ky.	-	-	1	-	9,499	8,806	5	2	1	-	-	-
Tenn.	3	7	27	-	27,863	26,839	6	6	1	-	-	-
Ala.	3	4	16	2	20,579	21,660	1	4	-	1	-	-
Miss.	-	1	16	-	12,604	13,789	4	1	-	-	-	-
W.S. CENTRAL	24	44	188	1	112,641	112,345	88	39	1	62	-	26
Ark.	-	7	16	-	9,105	8,515	-	4	-	4	-	-
La.	9	8	24	-	21,027	19,575	29	12	1	18	-	-
Okla.	4	7	35	-	12,275	12,247	9	8	-	5	-	-
Tex.	11	22	113	1	70,234	72,008	50	15	-	35	-	26
MOUNTAIN	19	3	41	3	27,576	33,468	28	23	7	8	-	2
Mont.	1	2	-	-	1,142	1,241	-	-	-	-	-	-
Idaho	3	1	-	-	1,324	1,498	1	2	-	-	-	1
Wyo.	-	-	-	-	832	861	1	1	-	-	-	-
Colo.	2	-	19	1	7,329	9,012	6	8	-	-	-	-
N. Mex.	1	-	1	-	3,777	3,726	4	3	-	-	-	-
Ariz.	-	-	11	-	7,275	9,871	12	4	5	7	-	-
Utah	12	-	5	2	1,342	1,665	3	3	1	-	-	1
Nev.	-	-	5	-	4,555	5,594	1	2	1	1	-	-
PACIFIC	53	30	174	6	113,144	133,766	112	101	26	33	-	109
Wash.	5	1	12	-	9,726	11,247	2	2	-	5	-	8
Oreg.	5	-	4	-	6,724	7,974	10	3	1	1	-	1
Calif.	40	28	144	6	91,607	108,478	99	90	25	27	-	69
Alaska	-	1	10	-	2,908	3,459	1	5	-	-	-	1
Hawaii	3	-	4	-	2,179	2,608	-	1	-	-	-	30
Guam	U	-	-	-	104	98	U	U	U	U	U	1
P.R.	-	-	1	3	2,268	2,758	-	-	-	-	-	1
V.I.	-	-	-	-	207	198	-	-	-	-	-	-
Pac. Trust Terr.	U	-	-	-	297	379	U	U	U	U	U	13

N: Not notifiable U: Unavailable

TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending November 6, 1982 and November 7, 1981 (44th week)

Reporting Area	Malaria		Measles (Rubeola)			Meningococcal Infections (Total)		Mumps		Pertussis	Rubella		
	1982	Cum. 1982	1982	Cum. 1982	Cum. 1981	1982	Cum. 1982	1982	Cum. 1982	1982	1982	Cum. 1982	Cum. 1981
UNITED STATES	9	895	8	1,499	2,753	51	2,477	71	4,562	29	27	2,138	1,883
NEW ENGLAND	1	44	1	16	83	3	130	2	188	-	4	24	119
Maine	-	-	-	-	5	-	9	-	41	-	-	-	33
N.H.	-	2	-	3	6	2	17	1	18	-	-	10	51
Vt.	-	-	-	2	3	1	10	-	7	-	-	-	-
Mass.	-	24	1	5	59	-	32	-	86	-	3	8	23
R.I.	-	3	-	-	-	-	16	-	16	-	-	1	-
Conn.	1	15	-	6	10	-	46	1	20	-	1	5	12
MID. ATLANTIC	1	149	2	168	868	8	445	9	302	5	1	103	222
Upstate N.Y.	-	27	1	117	212	3	153	5	80	3	-	49	107
N.Y. City	-	57	-	42	88	2	89	-	47	-	1	35	55
N.J.	-	31	1	5	58	2	89	4	47	1	-	18	47
Pa.	1	34	-	4	510	1	114	-	128	1	-	1	13
E.N. CENTRAL	1	81	-	77	81	8	311	22	2,290	6	1	186	398
Ohio	1	13	-	1	16	4	112	4	1,598	4	-	-	3
Ind.	-	3	-	2	9	1	31	3	40	-	-	29	135
Ill.	-	34	-	24	23	1	77	2	195	1	1	69	103
Mich.	-	26	-	50	30	2	74	8	338	-	-	49	37
Wis.	-	5	-	-	3	-	17	5	119	1	-	39	120
W.N. CENTRAL	2	24	-	49	10	3	119	9	589	9	1	60	79
Minn.	-	2	-	-	3	1	31	4	447	9	1	6	8
Iowa	-	7	-	-	1	-	12	1	35	-	-	-	4
Mo.	2	8	-	2	1	1	30	1	19	-	-	38	2
N. Dak.	-	1	-	-	-	-	6	-	-	-	-	-	-
S. Dak.	-	-	-	-	-	-	6	-	1	-	-	1	-
Nebr.	-	3	-	3	4	1	14	1	1	-	-	-	1
Kans.	-	3	-	44	1	-	20	2	86	-	-	15	64
S. ATLANTIC	-	123	-	110	453	15	523	3	280	4	3	88	139
Del.	-	4	-	-	-	-	-	-	12	-	-	1	1
Md.	-	19	-	3	5	2	36	-	30	-	-	34	1
D.C.	-	4	-	1	1	-	4	-	-	-	-	-	-
Va.	-	39	-	14	9	2	63	-	38	1	-	13	6
W. Va.	-	7	-	3	9	-	9	1	97	1	-	2	22
N.C.	-	7	-	1	3	1	101	1	20	1	1	2	5
S.C.	-	4	-	-	2	1	61	-	17	-	-	1	8
Ga.	-	16	-	-	111	3	104	1	20	-	1	16	37
Fla.	-	23	-	88	313	6	145	-	46	1	1	19	59
E.S. CENTRAL	-	9	-	9	5	2	150	2	57	-	-	46	37
Ky.	-	5	-	1	1	-	25	1	19	-	-	28	23
Tenn.	-	-	-	6	2	2	66	-	22	-	-	2	13
Ala.	-	1	-	2	2	-	48	-	9	-	-	-	1
Miss.	-	3	-	-	-	-	11	1	7	-	-	16	-
W.S. CENTRAL	-	61	3	155	868	4	291	2	213	1	2	117	169
Ark.	-	4	-	-	22	-	14	-	7	-	-	1	3
La.	-	5	-	2	4	-	61	-	6	-	-	1	9
Okla.	-	8	-	30	6	1	28	-	-	-	-	3	2
Tex.	-	44	3	123	836	3	188	2	200	1	2	112	155
MOUNTAIN	1	30	-	28	35	3	109	2	102	2	2	80	94
Mont.	-	1	-	-	-	1	6	-	4	-	-	5	3
Idaho	-	2	-	-	1	-	7	-	4	-	-	6	4
Wyo.	-	-	-	1	1	-	5	-	2	-	-	7	12
Colo.	-	12	-	7	10	2	46	1	17	2	-	6	30
N. Mex.	-	3	-	-	8	-	15	-	-	-	-	6	5
Ariz.	1	8	-	17	5	-	19	1	48	-	2	16	21
Utah	-	4	-	3	-	-	9	-	20	-	-	22	8
Nev.	-	-	-	-	10	-	2	-	7	-	-	12	11
PACIFIC	3	374	2	887	350	5	399	20	541	2	13	1,434	626
Wash.	2	23	-	42	3	-	48	3	71	1	-	38	91
Oreg.	-	14	-	23	5	-	74	-	-	-	-	6	53
Calif.	1	332	2	816	335	5	262	13	440	1	13	1,376	466
Alaska	-	1	-	1	-	-	11	-	10	-	-	5	1
Hawaii	-	4	-	5	7	-	4	4	20	-	-	9	15
Guam	U	1	U	6	6	U	2	U	3	U	U	2	2
P.R.	-	4	-	132	288	-	8	-	78	-	-	11	4
V.I.	-	-	-	-	24	-	-	-	3	-	-	-	1
Pac. Trust Terr.	U	-	U	-	1	U	2	U	5	U	U	-	1

U: Unavailable

TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending November 6, 1982 and November 7, 1981 (44th week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Tuberculosis		Tula-remia	Typhoid Fever		Typhus Fever (Tick-borne) (RMSF)		Rabies, Animal
	Cum. 1982	Cum. 1981	1982	Cum. 1982	Cum. 1982	1982	Cum. 1982	1982	Cum. 1982	Cum. 1982
UNITED STATES	27,849	26,181	525	21,704	225	4	339	9	947	5,327
NEW ENGLAND	500	500	11	606	6	-	17	1	11	41
Maine	7	5	-	51	-	-	-	-	-	26
N.H.	1	12	-	23	-	-	-	-	1	1
Vt.	4	16	-	13	-	-	2	-	-	2
Mass.	338	322	10	385	6	-	13	1	6	6
R.I.	21	30	1	26	-	-	-	-	2	-
Conn.	129	115	-	108	-	-	2	-	2	6
MID. ATLANTIC	3,760	3,744	65	3,650	7	2	63	1	44	187
Upstate N.Y.	387	361	8	623	7	-	9	1	16	102
N.Y. City	2,225	2,222	39	1,417	-	1	34	-	3	-
N.J.	549	525	5	707	-	1	12	-	13	17
Pa.	599	636	13	903	-	-	8	-	12	68
E.N. CENTRAL	1,555	1,984	106	3,303	1	-	30	-	84	539
Ohio	264	265	10	546	-	-	11	-	76	75
Ind.	174	260	-	397	-	-	2	-	2	70
Ill.	774	1,059	67	1,439	-	-	5	-	6	279
Mich.	257	323	25	742	-	-	9	-	-	6
Wis.	86	77	4	179	1	-	3	-	-	109
W.N. CENTRAL	471	576	12	635	34	-	16	-	33	1,091
Minn.	109	173	-	107	-	-	8	-	-	185
Iowa	29	24	-	66	2	-	1	-	4	352
Mo.	261	328	12	313	22	-	4	-	12	112
N. Dak.	7	9	-	13	-	-	-	-	-	90
S. Dak.	2	2	-	27	1	-	-	-	4	95
Nebr.	14	9	-	26	4	-	2	-	2	116
Kans.	49	31	-	83	5	-	1	-	11	141
S. ATLANTIC	7,674	6,988	124	4,516	12	-	40	2	508	1,040
Del.	20	13	2	42	-	-	-	-	-	2
Md.	416	506	22	523	1	-	9	-	49	53
D.C.	405	565	19	227	-	-	-	-	-	-
Va.	525	600	12	487	4	-	3	1	72	564
W. Va.	26	23	1	133	-	-	4	-	8	39
N.C.	624	556	12	676	-	-	2	-	218	65
S.C.	474	482	8	429	6	-	3	-	105	64
Ga.	1,592	1,714	15	725	-	-	-	-	50	188
Fla.	3,592	2,529	33	1,274	1	-	19	1	6	65
E.S. CENTRAL	1,924	1,706	47	1,984	8	-	19	4	92	591
Ky.	114	91	22	532	-	-	4	-	1	122
Tenn.	540	613	8	640	6	-	3	3	59	329
Ala.	730	511	15	535	-	-	9	-	15	133
Miss.	540	491	2	277	2	-	3	1	17	7
W.S. CENTRAL	7,350	6,303	48	2,615	117	1	35	1	156	1,025
Ark.	180	133	5	308	71	-	5	1	22	141
La.	1,630	1,432	7	391	3	-	3	-	2	31
Okla.	154	150	12	291	33	-	3	-	76	176
Tex.	5,386	4,588	24	1,625	10	1	24	-	56	677
MOUNTAIN	713	647	10	599	30	1	14	-	13	265
Mont.	5	11	1	38	4	-	-	-	4	85
Idaho	25	18	-	28	1	-	-	-	4	10
Wyo.	16	16	-	6	5	-	-	-	1	21
Colo.	187	192	5	77	7	-	3	-	1	48
N. Mex.	168	113	-	101	2	-	-	-	1	23
Ariz.	197	159	3	249	-	1	8	-	-	56
Utah	20	25	-	40	11	-	2	-	-	18
Nev.	95	113	1	60	-	-	1	-	2	4
PACIFIC	3,902	3,733	102	3,796	10	-	105	-	6	548
Wash.	128	162	5	232	1	-	6	-	-	8
Oreg.	93	100	11	165	2	-	4	-	1	3
Calif.	3,572	3,398	85	3,088	6	-	91	-	5	458
Alaska	14	11	-	74	1	-	1	-	-	79
Hawaii	95	62	1	237	-	-	3	-	-	-
Guam	1	-	U	36	-	U	-	U	-	-
P.R.	672	559	1	383	-	-	2	-	-	45
V.I.	22	16	-	1	-	-	-	-	-	-
Pac. Trust Terr.	-	-	U	91	-	U	-	U	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending November 6, 1982 (44th week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	699	473	161	37	16	12	57
Boston, Mass.	194	118	56	9	5	6	25
Bridgeport, Conn.	58	37	14	6	-	1	4
Cambridge, Mass.	26	21	5	-	-	-	3
Fall River, Mass.	29	22	5	2	-	-	-
Hartford, Conn.	47	28	14	2	-	3	1
Lowell, Mass.	21	17	3	1	-	-	2
Lynn, Mass.	12	10	2	-	-	-	2
New Bedford, Mass.	29	19	9	-	1	-	1
New Haven, Conn.	69	46	17	4	1	1	2
Providence, R.I.	62	41	14	4	3	-	7
Somerville, Mass.	12	8	3	1	-	-	1
Springfield, Mass.	46	32	9	3	2	-	5
Waterbury, Conn.	37	29	5	1	2	-	2
Worcester, Mass.	57	45	5	4	2	1	2
MID. ATLANTIC	2,568	1,699	567	169	65	66	112
Albany, N.Y.	62	42	11	1	-	8	-
Allentown, Pa.	25	22	2	1	-	-	-
Buffalo, N.Y.	155	100	37	12	3	3	24
Camden, N.J.	33	29	3	-	1	-	-
Elizabeth, N.J.	30	19	11	-	-	-	-
Erie, Pa.†	39	27	6	1	-	5	2
Jersey City, N.J.	43	28	6	5	-	4	1
N.Y. City, N.Y.	1,369	924	284	96	38	27	43
Newark, N.J.	67	35	20	8	1	2	5
Paterson, N.J.	27	15	7	2	-	3	2
Philadelphia, Pa.†	301	185	76	18	12	10	19
Pittsburgh, Pa.†	75	43	26	6	-	-	3
Reading, Pa.	28	24	3	1	-	-	2
Rochester, N.Y.	112	76	26	7	2	1	7
Schenectady, N.Y.	33	18	10	3	2	-	1
Scranton, Pa.†	25	15	8	-	2	-	-
Syracuse, N.Y.	67	45	13	4	2	3	-
Trenton, N.J.	23	14	7	2	-	-	1
Utica, N.Y.	27	19	6	1	1	-	2
Yonkers, N.Y.	27	19	5	1	1	-	-
E.N. CENTRAL	2,196	1,406	514	119	63	94	87
Akron, Ohio	82	50	21	6	2	3	2
Canton, Ohio	34	31	3	-	-	-	4
Chicago, Ill	503	311	126	29	15	22	14
Cincinnati, Ohio	142	94	37	5	2	4	18
Cleveland, Ohio	158	98	32	16	2	10	2
Columbus, Ohio	91	64	18	2	3	4	4
Dayton, Ohio	127	68	42	5	5	7	6
Detroit, Mich.	252	159	56	17	7	13	9
Evansville, Ind.	29	23	4	1	1	-	2
Fort Wayne, Ind.	49	38	7	3	-	1	3
Gary, Ind.	18	9	5	3	1	-	-
Grand Rapids, Mich.	50	36	10	1	-	3	3
Indianapolis, Ind.	182	116	42	4	13	7	3
Madison, Wis.	37	18	10	5	1	3	5
Milwaukee, Wis.	132	99	21	5	4	3	4
Peoria, Ill.	52	28	12	6	1	5	4
Rockford, Ill.	33	18	10	3	2	-	1
South Bend, Ind.	31	18	10	1	-	2	-
Toledo, Ohio	105	70	25	4	3	3	2
Youngstown, Ohio	89	58	23	3	1	4	1
W.N. CENTRAL	773	544	161	31	16	21	32
Des Moines, Iowa	57	47	9	-	-	1	-
Duluth, Minn.	34	20	12	1	-	1	3
Kansas City, Kans.	26	16	5	1	3	1	1
Kansas City, Mo.	140	97	33	5	1	4	7
Lincoln, Nebr.	26	17	6	1	-	2	-
Minneapolis, Minn.	94	63	17	6	3	5	5
Omaha, Nebr.	81	58	14	8	1	-	4
St. Louis, Mo.	149	104	34	5	5	1	5
St. Paul, Minn.	72	61	8	-	-	3	-
Wichita, Kans.	94	61	23	4	3	3	7

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,009	666	213	67	28	33	27
Atlanta, Ga.	132	75	28	18	6	5	2
Baltimore, Md.	101	59	29	8	3	2	1
Charlotte, N.C.	65	37	15	9	2	2	2
Jacksonville, Fla.	93	66	17	4	5	1	-
Miami, Fla.	83	58	20	2	1	2	2
Norfolk, Va.	63	32	23	4	-	4	4
Richmond, Va.	85	44	27	6	2	6	5
Savannah, Ga.	63	40	11	6	5	1	3
St. Petersburg, Fla.	93	77	12	1	2	1	2
Tampa, Fla.	68	44	18	3	-	3	4
Washington, D.C.§	122	108	1	4	2	5	2
Wilmington, Del.	41	26	12	2	-	1	-
E.S. CENTRAL	660	413	168	42	17	20	30
Birmingham, Ala.	104	61	24	8	4	7	3
Chattanooga, Tenn.	44	30	12	1	1	-	3
Knoxville, Tenn.	51	34	8	7	-	2	2
Louisville, Ky.	97	64	25	4	1	3	9
Memphis, Tenn.	169	111	40	12	2	4	6
Mobile, Ala.	38	26	9	1	2	-	1
Montgomery, Ala.	46	27	13	2	2	2	-
Nashville, Tenn.	111	60	37	7	5	2	6
W.S. CENTRAL	1,083	650	259	91	51	32	42
Austin, Tex.	44	23	15	2	3	1	1
Baton Rouge, La.	40	30	7	2	-	1	4
Corpus Christi, Tex.	36	24	9	1	2	-	1
Dallas, Tex.	191	121	44	10	11	5	2
El Paso, Tex.	59	35	17	4	-	3	7
Fort Worth, Tex.	78	51	19	5	1	2	6
Houston, Tex.	171	88	46	20	13	4	3
Little Rock, Ark.	59	31	20	5	-	3	4
New Orleans, La.	116	71	19	11	9	6	1
San Antonio, Tex.	137	92	24	16	4	1	6
Shreveport, La.	76	40	20	10	3	3	4
Tulsa, Okla.	76	44	19	5	5	3	3
MOUNTAIN	606	376	144	45	24	17	26
Albuquerque, N.Mex.	94	56	26	7	1	4	1
Colo. Springs, Colo.	31	19	8	2	2	-	2
Denver, Colo.	113	73	23	7	7	3	6
Las Vegas, Nev.	68	36	17	12	2	1	3
Ogden, Utah	29	21	4	2	-	2	3
Phoenix, Ariz.	138	83	35	11	7	2	-
Pueblo, Colo.	21	14	3	-	2	2	1
Salt Lake City, Utah	37	19	14	3	-	1	1
Tucson, Ariz.	75	55	14	1	3	2	9
PACIFIC	1,756	1,127	378	121	69	59	66
Berkeley, Calif.	18	14	3	1	-	-	-
Fresno, Calif.	76	52	14	3	1	6	2
Glendale, Calif.	30	23	3	3	-	1	2
Honolulu, Hawaii	42	19	14	2	4	3	3
Long Beach, Calif.	87	46	23	6	6	6	1
Los Angeles, Calif.	556	351	124	44	24	11	15
Oakland, Calif.	56	38	12	3	-	3	1
Pasadena, Calif.	21	16	2	3	-	-	2
Portland, Oreg.	123	84	29	5	1	4	3
Sacramento, Calif.	61	43	14	1	2	1	6
San Diego, Calif.	114	72	26	8	3	5	10
San Francisco, Calif.	150	95	31	15	4	5	2
San Jose, Calif.	151	93	30	10	10	8	6
Seattle, Wash.	147	97	24	14	9	3	4
Spokane, Wash.	74	43	22	3	3	3	7
Tacoma, Wash.	50	41	7	-	2	-	2
TOTAL	11,350††	7,354	2,565	722	349	354	479

* 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 1980[1]	Estimated mortality June 1982		Estimated number of physician contacts June 1982[4]
		Number[2]	Annual Rate/100,000[3]	
ALL CAUSES (TOTAL)	10,006,060	157,164	826.7	101,397,000
Accidents and adverse effects (E800-E807, E810-E825, E826-E949)	2,684,850	8,251	43.4	5,936,000
Malignant neoplasms (140-208)	1,804,120	35,512	186.8	1,544,000
Diseases of heart (390-398, 402, 404-429)	1,636,510	58,630	308.4	5,909,000
Suicides, homicides (E950-E978)	1,401,880	4,011	21.1	—
Chronic liver disease and cirrhosis (571)	301,070	2,110	11.1	158,000
Cerebrovascular diseases (430-438)	280,430	12,091	63.6	725,000
Pneumonia and influenza[5] (480-487)	124,830	3,555	18.7	716,000
Diabetes mellitus (250)	117,340	2,643	13.9	2,503,000
Chronic obstructive pulmonary diseases and allied conditions (490-496)	110,530	5,114	26.9	1,014,000
Prenatal care[6]				3,310,000
Infant mortality[6]		3,200	10.6 /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. 29, No. 13, September 17, 1981, multiplied by the difference between 65 years and the age at the midpoint 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. 31, No. 7, October 7, 1982, pp. 8-9) and the provisional U.S. population in that month (MVSR Vol. 31, No. 6, September 9, 1982, 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. 31, No. 7, October 7, 1982, pp. 8-9), using the underlying cause of death from a systematic sample of 10% of death certificates received in state vital statistics offices during the month and the provisional population of those states included in the sample for that month.

[4]IMS America *National Disease and Therapeutic Index* (NDTI), Monthly Report, June 1982, 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.

[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. 31, No. 6, September 9, 1982, p.1) are included in the table because "Years of potential life lost" does not reflect deaths of children < 1 year.

Homicide — Continued

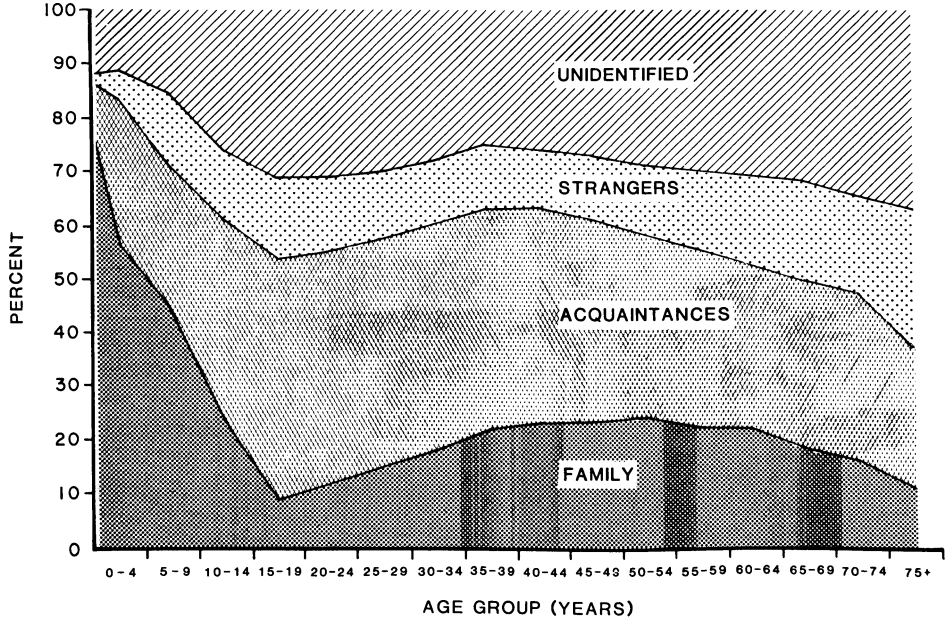
Using homicide statistics for 1978, 1979, and 1980, life expectancy statistics for 1978, and population counts for 1980, the FBI-UCR calculated the probability of homicide victimization (*1*). A U.S. citizen's chance of becoming a homicide victim is 1 out of 153. Males have a 1/100 chance of becoming a victim, while females have a 1/323 chance. White persons have a 1/240 chance compared with a 1/47 chance for persons of other races (*1*).

Of all homicides reported to the FBI-UCR between 1976 and 1979, 19% were committed by members of the victims' families, 39% by acquaintances, and 13% by strangers; offenders were unidentified in 29%. Children less than 10 years old were generally the victims of family members; acquaintances were the most likely offenders of victims 10 to 59 years old; and offenders of victims ≥ 60 were most likely to remain unidentified (Figure 1).

From 1976 to 1979, 47% of all homicides were precipitated by an argument, 1% involved a gang fight, 2% involved sexual assault, and 15% occurred during commission of another crime; miscellaneous non-felony circumstances accounted for 16% of homicides, and the circumstances were undeterminable in 20%. For victims under age 15, miscellaneous non-felony circumstances accounted for the greatest proportion of homicides. For victims 15 to 74 years of age, the precipitating circumstance usually involved an argument. For victims age 75 and older, homicides were most likely to occur during the commission of another crime (Figure 2).

In 1981, 50% of homicides were committed with handguns, 13% with rifles or shotguns, and 19% with cutting or stabbing instruments. The remaining 18% were committed with clubs, poison, hands, fists, feet, or other means (*1*).

FIGURE 1. Proportion of homicides with specified victim-offender relationships, by victim age, — United States, 1976-1979*†



*These data represent the distributions of the relationship between the first specified victim and the first specified offender reported for each homicide incident.

†Based on 69,890 homicides, excluding 1,041 first specified victims of unknown age.

Homicide — Continued

Reported by Office of the Center Director, Center for Health Promotion and Education, CDC.

Editorial Note: Because the majority of homicides in 1981, as in previous years, were committed by relatives or acquaintances of the victims, the report states that "criminal homicide is primarily a societal problem over which law enforcement has little or no control," and suggests that homicides that do not occur during the commission of other crimes defy the traditional prevention and deterrence strategies of law enforcement agencies. This suggests that those acts of violence unrelated to other criminal activity are most immediately in need of public health prevention and intervention strategies (*3*). The foundations for medical and public health involvement in this problem have already been laid through work on family violence (*3-7*). Potential homicide prevention strategies include: a) educational programs focused on conflict and stress management for children and adults, b) promotion of neighborhood ties, c) the design of structurally safe environments, and d) domestic crisis-intervention programs. Additional basic research is needed to more clearly delineate the causes of homicide so that effective preventive strategies can be implemented.

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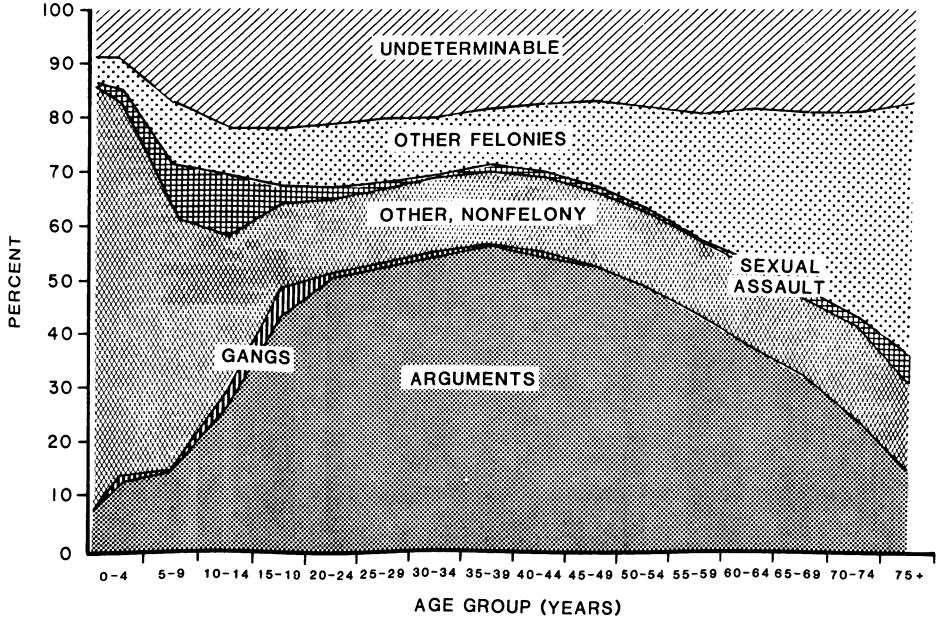
FIGURE 2. Proportion of homicides associated with specified circumstances, by victim age — United States, 1976-1979*†



*These data represent the distributions of specified circumstances for only the first specified victim reported for each homicide incident.

†Based on 69,890 homicides, excluding 1,041 first specified victims of unknown age.

Homicide — Continued

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Current Trends

Urban Rat Control — United States, Second Quarter, Fiscal Year 1982

During the second quarter of fiscal year 1982, 44 urban rat control programs identified 825 environmentally improved blocks* (EIB) and achieved maintenance status in an additional 706 blocks (Table 5).†

Urban rat control programs provide a set of services—resident education, code enforcement, improved municipal services, neighborhood cleanup, and supplemental rat killing—designed to eliminate the environmental conditions that support rat infestations. During the quarter, these services are provided to over 2 million people living in almost 14,000 blocks.

Since 1969, urban rat control programs have served approximately 9.2 million people in over 61,000 blocks. As a result of program efforts, 7.9 million people now live in environmentally improved and rat-free neighborhoods.

Reported by Environment Health Svcs Div, Center for Environmental Health, CDC.

*Blocks that have limited environmental deficiencies and are essentially rat free.

†Blocks that have remained in maintenance for at least 1 year and no longer require intensive rat control efforts.

TABLE 5. Status of target-area blocks in Urban Rat Control Programs, second quarter, fiscal year 1982 (January 1-March 31, 1982)

Program community	Target-area blocks				Environmentally improved blocks*	
	Total	In attack phase	In maintenance phase		New this quarter	Cumulative
			< 12 months	≥ 12 months		
REGION I						
Bridgeport	478	240	223	15	59	1,213
Hartford	220	120	85	15	0	0
Previously reporting programs	258	120	138	0	59	372
REGION II						841
Atlantic City	3,395	1,241	993	759	29	5,670
Camden	202	17	78	32	0	0
Jersey City	332	134	60	38	0	119
Newark	183	51	94	38	0	260
New York City	174	16	24	9	27	170
Rochester	1,134	412	292	430	0	1,219
Yonkers	174	76	71	27	0	494
Aguadilla, P.R.	80	60	20	0	0	145
Arecibo, P.R.	199	143	50	6	2	256
Guayama, P.R.	102	36	66	0	0	291
Mayaguez, P.R.	176	121	55	0	0	40
Ponce, P.R.	155	67	72	16	0	239
San Juan, P.R.	226	39	23	62	0	378
Previously reporting programs	258	69	88	101	0	405

Urban Rat Control — Continued

TABLE 5. Status of target-area blocks in Urban Rat Control Programs, second quarter, fiscal year 1982 (January 1-March 31, 1982) *(Continued)*

Program community	Target-area blocks				Environmentally improved blocks*	
	Total	In attack phase	In maintenance phase		New this quarter	Cumulative
			< 12 months	≥ 12 months		
REGION III						1,654
"War on Rats"	2,421	1,063	704	358	119	8,272
Chester	852	354	250	67	63	1,385
N.E. Pa. V.C. Assn.†	160	57	60	43	0	116
Philadelphia	526	207	84	120	5	1,369
Pittsburgh	883	445	310	128	51	1,697
Previously reporting programs						3,705
REGION IV	3,092	1,471	1,088	533	352	8,729
Tuscaloosa	302	71	209	22	56	147
Miami	1,336	672	574	90	179	1,373
Pensacola	150	87	63	0	33	439
Atlanta, Ga.§	491	373	89	29	0	0
Lexington	189	37	6	146	5	128
Louisville	407	190	57	160	72	842
Memphis	217	41	90	86	7	599
Previously reporting programs						5,201
REGION V	1,936	816	853	267	142	5,839
Chicago	476	206	241	29	9	24
Peoria	192	4	63	125	57	132
Akron	138	46	82	10	31	726
Barberton	115	1	102	12	0	182
Cincinnati	83	32	51	0	29	229
Cleveland	285	222	63	0	16	762
Columbus	180	66	63	51	0	385
Toledo	138	36	102	0	0	200
Youngstown	194	93	61	40	0	26
Milwaukee	135	110	25	0	0	0
Previously reporting programs						3,172
REGION VI	845	489	255	101	0	7,039
New Orleans	301	87	136	78	0	3,139
Houston	544	402	119	23	0	2,356
Previously reporting programs						1,544
REGION VII	466	79	328	59	92	4,404
Kansas City, Mo.	100	14	86	0	24	771
St. Louis	244	41	147	56	0	1,168
Omaha	122	24	95	3	68	828
Previously reporting programs						1,637
REGION IX	362	131	211	20	32	1,875
Los Angeles	61	15	32	14	0	504
Oakland	162	62	94	6	17	304
San Francisco	139	54	85	0	15	396
Previously reporting programs						671
Region X						830
Previously reporting programs						830
Total	12,995	5,530	4,655	2,112	825	43,871

*Contiguous blocks where maintenance has been achieved and sustained for a minimum of 12 months. These blocks are no longer part of the approved project target area.

†Northeastern Pennsylvania Vector Control Association. Serves Lackawanna and Luzerne counties and the cities of Nanticoke, Wilkes-Barre, and Hazleton.

§Target-area blocks are confined to public housing projects.

The *Morbidity and Mortality Weekly Report* is prepared by the Centers for Disease Control, Atlanta, Georgia, and distributed by the National Technical Information Service, Springfield, Virginia. The data in this report are provisional, based on weekly telegrams 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.

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