

# M M W R

## MORBIDITY AND MORTALITY WEEKLY REPORT

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### *Perspectives in Disease Prevention and Health Promotion*

#### **Alcohol as a Risk Factor for Injuries — United States**

Extensive research and resultant government and public concern has focused on the relationship between excessive alcohol use and highway injuries. Less generally recognized is alcohol's association with other injuries. The following studies are representative of findings on the relationship between alcohol and morbidity and mortality resulting from nonhighway injuries.

The Washington State Department of Social and Health Services conducted a retrospective investigation to determine the epidemiologic features of injuries from falls. Although no control group was studied, alcohol use, as noted on hospital patient records, was found in 10% of 1,740 persons with fall injuries reporting to a large hospital emergency room in 1975. Alcohol was found in 22% of 78 fall "repeaters" (persons who experienced and sought medical care for more than one fall injury during the 1-year study period) (1).

Another study of injury morbidity, based on emergency room visits to a Massachusetts general hospital from October 1966 to September 1967, identified alcohol-positive Breatalyzer\* readings of 0.01% and higher among 22% of 620 persons treated for injuries in the home. Positive readings were found for 9% of a comparison group admitted for non-injuries (2).

An examination of nonhighway injury deaths occurring from 1965 to 1967 in a California county identified blood alcohol concentrations of 0.10% or higher in 37% of 102 such deaths; these concentrations were identified in 60% of the 10 persons who died from falls, and in 64% of the 22 persons who died from burns. Among a comparison group of persons who died suddenly from non-injuries, 18% had detectable blood alcohol concentrations (3). This study and others suggest that careless handling of smoking materials by intoxicated persons is particularly dangerous and contributes to substantial numbers of burn injuries and deaths, as well as property damage (3-5).

A study of adult drownings in Baltimore from 1968 to 1971 demonstrated blood alcohol concentrations of 0.03% or higher in 21 (47%) of 45 victims; 81% of the 21 victims with concentrations of 0.03% or greater had levels of at least 0.10% (6).

A later study of injury mortality conducted in New York City from 1974 to 1975 found that 41% of 54 fall victims, 46% of 28 fire victims, and 53% of 19 drowning victims had alcohol concentrations of 0.10% or higher (7).

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

**Editorial Note:** Alcohol is associated with both highway and nonhighway injuries. The recently announced Department of Health and Human Services Secretarial Initiative on Teenage Alcohol Abuse (8) provides an opportunity to reduce both health and social consequences of

\*Use of trade names is for identification only and does not constitute endorsement by the Public Health Service or the U. S. Department of Health and Human Services.

*Alcohol — Continued*

alcohol abuse through effective mobilization of private, community, and government resources.

Emergency-room health-care providers should consider testing injured persons for alcohol, both to ensure appropriate medical management of injuries and to serve as the first step in treating problem drinking or alcoholism. Passive prevention measures, such as more widespread use of flame-retardant fabrics and smoke detectors, identification and reduction of fall hazards, sanctions directed at drunken boat drivers, and prohibition of alcohol sale and use in recreational areas, should be implemented to protect everyone, including alcohol-impaired persons.

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*Surveillance Summary*

### **Abortion Surveillance: Preliminary Analysis, 1979-1980 — United States**

Fifty states and the District of Columbia reported 1,251,921 legal abortions in 1979, an 8.1% increase over the number reported for 1978 (Table 1). In 1980, the total was 1,297,606, an increase of 3.6% over 1979. Over the 2-year period, the national abortion ratio\* increased by 3.5%, from 347.3 per 1,000 live births in 1978 to 359.4/1,000 in 1980. Over 90% of this increase occurred between 1978 and 1979. Since 1978, the national abortion rate increased from 23 to 25 abortions per 1,000 women aged 15 to 44.

Women obtaining abortions in 1979 and 1980 tended to be young, white, and unmarried, and to have had no previous live births (Table 1). Approximately 30% were 19 years of age or younger; 35% were 20-24 years of age; and 35% were 25 years of age or older. Approximately 70% were white, and 75% were unmarried at the time of abortion. Fifty-eight percent of abortions were obtained by women who had had no live births, while approximately 3% were obtained by women who had had four or more live births.

Curettage accounted for 95.0% of abortion procedures (suction curettage, sharp curettage, and dilatation and evacuation) in 1979 and 95.5% in 1980. Slightly more than 3% were performed by intrauterine instillation, and hysterotomy and hysterectomy and systerectomy accounted for 0.1% of all procedures in 1979 or 1980.

\* National abortion ratio =  $\frac{\text{national total legal abortions}}{\text{national total live births}} \times 1000$

**TABLE 1. Characteristics of women obtaining abortions — United States, 1972-1980**

Characteristics	Percentage distribution*									
	1972	1973	1974	1975	1976	1977	1978	1979	1980	
<b>Totals</b>	586,760	615,831	763,476	854,853	988,267	1,079,430	1,157,776	1,251,921	1,297,606	
<b>Residence</b>										
Abortion in-state	56.2	74.8	86.6	89.2	90.0	90.0	89.3	90.0	92.6	
Abortion out-of-state	43.8	25.2	13.4	10.8	10.0	10.0	10.7	10.0	7.4	
<b>Age</b>										
≤ 19	32.6	32.7	32.7	33.1	32.1	30.8	30.0	30.0	29.2	
20-24	32.5	32.0	31.8	31.9	33.3	34.5	35.0	35.4	35.5	
≥ 25	34.9	35.3	35.6	35.0	34.6	34.7	34.9	34.6	35.3	
<b>Race</b>										
White	77.0	72.5	69.7	67.8	66.6	66.4	67.0	62.9	69.9	
Black and other	23.0	27.5	30.3	32.2	33.4	33.6	33.0	31.1	30.1	
<b>Marital status</b>										
Married	29.7	27.4	27.4	26.1	24.6	24.3	26.4	24.7	23.1	
Unmarried	70.3	72.6	72.6	73.9	75.4	75.7	73.6	75.3	76.9	
<b>Number of live births<sup>†</sup></b>										
0	49.4	48.6	47.8	47.1	47.7	53.4	56.6	58.1	58.4	
1	18.2	18.8	19.6	20.2	20.7	19.1	19.2	19.1	19.5	
2	13.3	14.2	14.8	15.5	15.4	14.4	14.1	13.8	13.7	
3	8.7	8.7	8.7	8.7	8.3	7.0	5.9	5.5	5.3	
≥ 4	10.4	9.7	9.0	8.6	7.9	6.2	4.2	3.5	3.2	
<b>Type of procedure</b>										
Curettage	88.6	88.4	89.7	90.9	92.8	93.8	94.6	95.0	95.5	
Intrauterine instillation	10.4	10.4	7.8	6.2	6.0	5.4	3.9	3.3	3.1	
Hysterotomy/ hysterectomy	0.6	0.7	0.6	0.4	0.2	0.2	0.1	0.1	0.1	
Other	0.5	0.6	1.9	2.4	0.9	0.7	1.4	1.6	1.3	
<b>Weeks of gestation</b>										
≤ 8	34.0	36.1	42.6	44.6	47.0	51.2	52.2	52.1	51.7	
9-10	30.7	29.4	28.7	28.4	28.0	27.2	26.9	27.0	26.2	
11-12	17.5	17.9	15.4	14.9	14.4	13.1	12.3	12.5	12.2	
13-15	8.4	6.9	5.5	5.0	4.5	3.4	4.0	4.2	5.2	
16-20	8.2	8.0	6.5	6.1	5.1	4.3	3.7	3.4	3.9	
≥ 21	1.3	1.7	1.2	1.0	0.9	0.9	0.9	0.9	0.9	

\*Excludes unknowns. Since the number of states reporting each characteristic varies from year to year, temporal comparisons should be made with caution.

†For years 1972-1977, data indicate number of living children.

*Abortion — Continued*

In both 1979 and 1980, more than half of all reported legal abortions were performed in the first 8 weeks of gestation, and more than 90% at less than 13 weeks' gestation. The reported percentage of women obtaining abortions in the 16- to 20-week interval declined between 1978 and 1979, but in 1980, this percentage increased to 3.9%. Only 0.9% of women obtained abortions at 21 weeks or later.

Over the 2-year period, 26 deaths associated with legal abortion were reported— 18 in 1979 and eight in 1980. Fourteen deaths were reported following spontaneous abortions—eight in 1979 and six in 1980. No 1979 deaths were reported from illegally induced abortions; one was reported in 1980. One other abortion-related death in 1980 could not be classified.

*Reported by Pregnancy Epidemiology Br, Research and Statistical Br, Div of Reproductive Health, Center for Health Promotion and Education, CDC.*

**Editorial Note:** This report presents a preliminary analysis; a more in-depth abortion surveillance report is forthcoming and will detail the characteristics of women obtaining abortions. Since regional areas reporting these characteristics have differed from year to year, temporal trends should not be analyzed from summary data. When analysis is limited to areas reporting for both 1979 and 1980, no major shifts in characteristics of women obtaining abortions are evident.

Since 1969, when CDC began collecting information on legal abortions, the reported number of women obtaining abortions has increased yearly; however, the annual percentage increase since 1976 has steadily declined, with the lowest percentage increase (3.6%) reported for 1980.

In general, state-based passive surveillance systems detect fewer cases than those estimated by direct surveys of abortion-providers. Therefore, the number of abortions reported to CDC was probably less than the actual number in 1979 and 1980. Underreporting of abortions may produce some biases in the CDC data. For example, abortions performed in physicians' offices are probably reported less completely than those in hospitals or other facilities (1).

The age distribution of women obtaining abortions has gradually shifted from women 19 years of age and younger to women 20-24 years old. This shift results largely from a similar demographic shift in age distribution for women younger than age 25 (2). However, the proportionate decline in abortions obtained by women of black and other races, which began in 1978, does not appear to reflect demographic changes in the ethnic distribution of women of childbearing ages.

In 1979 and 1980, the proportion of abortions obtained by unmarried women increased. Women who had had no live births accounted for an increasing proportion of abortions in both 1979 and 1980. Concomitantly, the percentage of abortions for women with one or more live births decreased, as compared with the percentages for previous years.

Curettage accounted for virtually all abortions performed at 12 weeks or earlier. In previous years, dilatation and evacuation had been the most common method of abortion at 13-15 weeks' gestation, and in 1980, dilatation and evacuation replaced saline instillation as the most common method of abortion during the 16- to 20-week interval.

The total number of deaths associated with the three types of abortions (legal, illegal, and spontaneous) has decreased steadily since 1972, reaching a low of 16 reported deaths in 1980. During this 9-year period, the number of illegal-abortion deaths decreased the most (97%), while the number of spontaneous-abortion deaths decreased 76%, and legal-abortion deaths decreased 67%.

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## Epidemiologic Notes and Reports

### Clindamycin and Quinine Treatment for *Babesia microti* Infections

Two cases of *Babesia microti* infection have recently been reported from Massachusetts. Both patients recovered after treatment with clindamycin and quinine.

**Case 1:** On July 22, 1982, a 73-year-old man residing in Nantucket, Massachusetts, had onset of fever (temperature of 38.3-39.4 C [101-103 F]) accompanied by malaise and weakness. Blood films on July 28 were negative for parasites. His symptoms continued, and he was hospitalized on July 31. His temperature was 39.7 C (103.4 F); he had no rash, and his spleen was not palpable. Hemoglobin was 14.9 g/dL, hematocrit, 44, and white blood cells (WBC), 4,600/mm<sup>3</sup>; *B. microti* were found in the blood film. Tetracycline was given orally (250 mg every 6 hours) but discontinued after 1 day and replaced by chloroquine (500 mg every 12 hours). Parasites were present after 2 days of treatment; chloroquine was replaced with ampicillin (500 mg orally every 6 hours) and trimethoprim (160 mg) plus sulfamethoxazole (800 mg orally every 12 hours). Serum obtained on August 2 had a 2048 antibody titer to *B. microti* by the indirect fluorescence antibody (IFA) test. On August 5, 50% of red blood cells (RBC) were parasitized. The next day, ampicillin and trimethoprim-sulfamethoxazole were discontinued, and clindamycin (300 mg intravenously [IV] every 6 hours) and quinine (650 mg orally every 6 hours) were given, along with two units of packed RBC. On August 7, parasitemia was 20%, and the patient's highest temperature was 38.1 C (100.6 F). On August 8, he was tachypneic with signs of mild pulmonary edema, but his temperature was normal, and the parasitemia had decreased to 5%. After blood had been obtained for parasitologic examination, the patient was given two additional units of packed RBC on August 8. Blood films on August 11 and thereafter during hospitalization were negative for parasites. Clinical improvement was apparent on August 11, with no further temperature elevations, and oral clindamycin (150 mg every 6 hours) was substituted for IV clindamycin. Quinine and clindamycin were discontinued on August 16, and the patient was discharged on August 17.

Blood films prepared on October 27 were still negative for parasites, and the patient's antibody titer to *Babesia* had decreased to 256 (specimen run in parallel with August 2 specimen). Hamsters inoculated with blood collected the same day were negative for parasites when tested on November 15 and 22.

**Case 2:** On August 22, 1982, a 60-year-old man was hospitalized in Concord, Massachusetts, with a splenic rupture. He was given four blood transfusions and was splenectomized the day after admission. He was discharged on August 30 after an uneventful post-operative course. On September 11, his temperature rose to 38.9 C (102 F). The patient was readmitted on September 13 with a temperature of 40 C (104 F) and shaking chills. Physical examination was normal. Hematologic values were as follows: hematocrit 34.6, hemoglobin 11.6 g, RBC 3.75 million, WBC 5200, and platelets 324,000/mm<sup>3</sup>. Blood films were positive for *B. microti*, with approximately 2.4% of RBC parasitized. Urine was 1+ for hemoglobin; total bilirubin was 1.6 and direct bilirubin, 0.6 mg/dL. Serum glutamic-pyruvic transaminase was 118, serum glutamic-oxaloacetic transaminase, 427 IU/L, and plasma hemoglobin, 10 mg dL. Chemotherapy with quinine (650 mg orally every 8 hours) and clindamycin (750 mg IV every 6 hours) was begun on September 13. Three days later, parasitemia was 1.4%, and 5 days after initiation of therapy, it had decreased to 0.1%. Blood films examined on September 18 and thereafter until discharge were negative for parasites. Low-grade fever continued until September 17, but signs of hemolysis had decreased and disappeared rapidly over the next few days. The patient was discharged on September 24 after completing a 10-day course of quinine-clindamycin treatment.

*Babesia microti* — Continued

Serum specimens collected on September 13 and 14 had a *B. microti* antibody titer of 256 by IFA. Blood obtained on September 14 produced infection in hamsters in 1 week. Hamsters inoculated with blood collected from the patient on October 6 showed no evidence of infection 10 weeks later.

Blood from the four donors inoculated into hamsters resulted in no infections during a 6-week observation period. None of the donors had antibody to *B. microti*.

Reported by GJ Dammin, MD, A Spielman, SD, Harvard School of Public Health; EB Mahoney, MD, Nantucket Cottage Hospital, Nantucket Island, MA; EF Bracker, MD, K Kaplan, MD, Emerson Hospital, Concord, MA; Protozoal Diseases Br, Div of Parasitic Diseases, Center for Infectious Diseases, CDC.

**Editorial Note:** *B. microti* is an intraerythrocytic protozoan parasite resembling *Plasmodium falciparum*. Natural transmission occurs through the bite of an infected tick (*Ixodes dammini*), but transfusion-induced infections have been recognized since 1979 (1,2). A spectrum of infections, ranging from asymptomatic to severe, life-threatening disease with fever, chills, and hemolytic anemia may occur. Splenectomized patients are more likely to have severe infections, but as this report illustrates, high parasitemia with hemolysis may also occur in spleen-intact patients (2,3). Most cases occur in late summer and early fall. Of the 17 patients

(Continued on page 72)

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

Disease	5th Week Ending			Cumulative, 5th Week Ending		
	February 5, 1983	February 6, 1982	Median 1978-1982	February 5, 1983	February 6, 1982	Median 1978-1982
Aseptic meningitis	93	93	56	442	407	301
Encephalitis: Primary (arthropod-borne & unspec.)	14	21	13	79	69	53
Post-infectious	-	1	3	5	3	9
Gonorrhea: Civilian	17,206	19,789	19,789	89,480	94,547	92,424
Military	386	622	622	2,320	2,837	2,762
Hepatitis: Type A	544	452	548	2,299	1,866	2,250
Type B	381	362	306	1,909	1,652	1,387
Non A, Non B	77	48	N	262	129	N
Unspecified	160	182	182	715	745	868
Legionellosis	14	4	N	46	23	N
Leprosy	2	4	4	21	7	14
Malaria	16	8	9	45	56	56
Measles: Total	3	12	195	24	46	547
Indigenous	1	N	N	16	N	N
Imported*	2	N	N	8	N	N
Meningococcal infections: Total	56	57	62	272	274	273
Civilian	55	57	62	264	273	269
Military	1	-	-	8	1	1
Mumps	71	62	214	368	370	1,106
Pertussis	27	17	29	87	67	99
Rubella (German measles)	22	36	79	73	138	260
Syphilis (Primary & Secondary): Civilian	625	742	518	3,295	3,319	2,499
Military	5	7	7	50	52	34
Toxic-shock syndrome	7	N	N	35	N	N
Tuberculosis	433	474	485	1,785	1,956	2,002
Tularemia	5	2	2	14	6	9
Typhoid fever	2	8	8	22	42	27
Typhus fever, tick-borne (RMSF)	-	2	1	6	13	6
Rabies, animal	93	64	64	410	383	383

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1983		Cum. 1983
Anthrax	-	Plague	-
Botulism: Foodborne (Calif. 1)	1	Poliomyelitis: Total	-
Infant (Ohio 1, Calif. 3)	6	Paralytic	-
Other	-	Psittacosis	4
Brucellosis (Mich. 1, N.C. 1, Ark. 1, Calif. 1)	9	Rabies, human	-
Cholera	-	Tetanus (Wash. 1)	5
Congenital rubella syndrome (Calif. 1)	3	Trichinosis (Mass. 2)	3
Diphtheria	-	Typhus fever, flea-borne (endemic, murine)	2
Leptospirosis	-		

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

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

Reporting Area	Aseptic Menin- gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel- losis	Leprosy	Malaria
		Primary	Post-in- fectious	Cum. 1983	Cum. 1982	A	B	NA,NB	Unspeci- fied			
						1983	1983	1983	1983			
UNITED STATES	93	79	5	89,480	94,547	544	381	77	160	14	21	45
NEW ENGLAND	3	4	-	2,329	2,092	8	16	1	9	2	-	-
Maine	-	-	-	123	117	-	2	1	-	-	-	-
N.H.	-	-	-	72	84	2	-	-	2	-	-	-
Vt.	-	-	-	45	50	1	1	-	-	-	-	-
Mass	2	3	-	979	812	3	8	-	7	-	-	-
R.I.	1	-	-	131	136	2	3	-	-	1	-	-
Conn.	-	1	-	979	893	-	2	-	-	1	-	-
MID ATLANTIC	7	11	-	11,428	10,652	47	40	4	11	1	2	8
Upstate N.Y.	5	6	-	1,402	1,511	3	7	-	4	-	-	2
N.Y. City	2	3	-	5,044	4,831	24	10	-	1	1	2	6
N.J.	-	1	-	2,104	1,809	20	23	4	6	-	-	-
Pa.	-	1	-	2,878	2,501	-	-	-	-	-	-	-
E.N. CENTRAL	6	17	1	10,921	12,962	59	33	11	16	10	1	2
Ohio	1	10	1	3,018	3,480	29	6	-	12	9	1	-
Ind.	-	-	-	1,521	1,844	4	5	1	-	-	-	-
Ill.	-	-	-	1,608	3,281	3	3	-	-	-	-	-
Mich.	5	7	-	3,685	3,208	23	19	10	4	1	-	2
Wis.	-	-	-	1,089	1,149	-	-	-	-	-	-	-
W.N. CENTRAL	4	3	-	4,207	4,381	11	12	2	2	-	-	1
Minn.	-	-	-	697	686	3	3	2	-	-	-	-
Iowa	1	3	-	475	427	-	2	-	-	-	-	-
Mo.	2	-	-	1,922	2,024	4	3	-	2	-	-	-
N. Dak.	-	-	-	49	49	-	-	-	-	-	-	-
S. Dak.	-	-	-	127	139	1	2	-	-	-	-	-
Nebr.	1	-	-	240	224	3	2	-	-	-	-	-
Kans.	-	-	-	697	832	-	-	-	-	-	-	1
S. ATLANTIC	19	16	1	22,238	24,818	52	89	8	12	-	-	5
Del.	-	-	-	530	368	-	-	1	-	-	-	-
Md.	1	1	-	3,239	3,435	6	16	3	4	-	-	3
D.C.	1	-	-	1,524	1,108	-	5	-	-	-	-	-
Va.	1	9	1	2,023	1,873	1	15	2	2	-	-	1
W. Va.	-	-	-	235	242	3	3	-	-	-	-	-
N.C.	5	3	-	2,827	4,050	1	8	-	2	-	-	-
S.C.	-	1	-	2,316	2,030	4	18	-	1	-	-	-
Ga.	5	-	-	4,062	4,605	13	16	-	-	-	-	-
Fla.	6	2	-	5,482	7,107	24	8	2	3	-	-	1
E.S. CENTRAL	9	3	2	8,145	7,572	28	38	5	4	-	-	1
Ky.	-	-	-	1,017	953	13	2	-	3	-	-	-
Tenn.	2	-	-	2,979	2,821	3	25	3	-	-	-	-
Ala.	7	3	2	2,719	2,255	5	10	2	1	-	-	1
Miss.	-	-	-	1,430	1,543	7	1	-	-	-	-	-
W.S. CENTRAL	14	5	-	13,134	14,124	142	29	3	67	-	2	1
Ark.	1	-	-	962	1,229	-	4	-	4	-	-	-
La.	-	-	-	1,954	2,152	36	3	1	3	-	-	-
Okla.	2	1	-	1,501	1,462	16	2	2	11	-	-	1
Tex.	11	4	-	8,717	9,281	90	20	-	49	-	2	-
MOUNTAIN	4	5	-	2,543	3,383	42	10	3	6	1	2	2
Mont.	-	-	-	126	177	-	-	-	-	-	-	-
Idaho	-	-	-	153	143	-	-	-	-	-	-	-
Wyo.	-	1	-	91	109	4	-	-	1	-	-	-
Colo.	-	1	-	711	983	6	6	-	1	-	-	2
N. Mex.	-	-	-	371	396	5	-	1	-	-	-	-
Ariz.	-	-	-	524	911	20	3	1	2	1	2	-
Utah	4	3	-	116	135	7	1	1	2	-	-	-
Nev.	-	-	-	451	529	-	-	-	-	-	-	-
PACIFIC	27	15	1	14,535	14,563	155	114	40	33	-	14	25
Wash.	1	1	-	717	1,198	4	6	3	1	-	1	1
Oreg.	-	-	-	637	833	3	1	1	1	-	1	2
Calif.	26	13	1	12,680	11,920	148	107	36	31	-	12	22
Alaska	U	-	-	224	365	U	U	U	U	U	-	-
Hawaii	-	1	-	277	247	-	-	-	-	-	-	-
Guam	U	-	-	-	6	U	U	U	U	U	-	-
P.R.	-	-	-	-	284	6	2	-	1	-	-	-
V.I.	-	-	-	29	25	-	-	-	-	-	-	-
Pac. Trust Terr.	U	-	-	-	47	U	U	U	U	U	-	-

N: Not notifiable

U: Unavailable

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

Reporting Area	Measles (Rubeola)					Meningococcal infections	Mumps			Pertussis			Rubella		
	Indigenous		Imported*		Total		1983	Cum. 1983	Cum. 1982	1983	Cum. 1983	Cum. 1982	1983	Cum. 1983	Cum. 1982
	1983	Cum. 1983	1983	Cum. 1983	Cum. 1982										
UNITED STATES	1	16	2	8	46	272	71	368	370	27	87	67	22	73	138
NEW ENGLAND	-	-	-	-	2	13	6	21	49	3	6	8	-	1	7
Maine	-	-	-	-	-	-	2	3	9	-	-	-	-	-	-
N.H.	-	-	-	-	-	-	1	7	3	3	3	-	-	-	7
Vt.	-	-	-	-	2	-	-	2	3	-	1	-	-	-	-
Mass.	-	-	-	-	5	2	4	29	-	1	2	-	1	-	-
R.I.	-	-	-	-	-	-	-	-	3	-	1	2	-	-	-
Conn.	-	-	-	-	7	1	5	2	-	-	2	-	-	-	-
MID ATLANTIC	-	-	1	1	13	32	3	17	25	4	17	8	-	2	7
Upstate N.Y.	-	-	1†	1	8	15	-	5	11	-	8	4	-	1	5
N.Y. City	-	-	-	-	4	5	1	3	6	-	1	3	-	1	2
N.J.	-	-	-	-	2	2	1	5	3	-	3	-	-	-	-
Pa.	-	-	1	1	10	1	4	5	4	5	1	-	-	-	-
E.N. CENTRAL	-	-	-	-	2	46	29	186	139	10	27	19	1	9	17
Ohio	-	-	-	-	24	10	110	60	7	16	2	-	1	-	-
Ind.	-	-	1	1	7	2	4	8	-	2	2	-	-	1	1
Ill.	-	-	-	-	1	1	7	13	3	6	3	-	1	8	8
Mich.	-	-	-	-	1	14	16	57	44	-	1	5	-	2	1
Wis.	-	-	-	-	-	-	-	8	14	-	2	7	1	5	7
W.N. CENTRAL	-	-	-	-	-	17	4	35	16	-	3	2	-	6	5
Minn.	-	-	-	-	1	1	-	1	-	-	-	-	-	2	1
Iowa	-	-	-	-	3	4	21	5	-	1	-	-	-	-	-
Mo.	-	-	-	-	10	-	-	3	-	1	2	-	-	-	2
N. Dak.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nebr.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kans.	-	-	-	-	3	-	13	8	-	1	-	-	-	4	2
S. ATLANTIC	-	-	-	2	8	51	6	16	50	4	8	8	3	6	6
Del.	-	-	-	-	-	-	-	1	-	-	4	-	-	-	-
Md.	-	-	-	-	6	1	2	3	-	-	-	-	-	1	-
D.C.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Va.	-	-	1	1	8	8	1	6	7	1	2	-	-	-	5
W. Va.	-	-	-	-	-	-	3	6	26	-	1	-	1	-	-
N.C.	-	-	-	-	12	1	1	2	-	-	1	-	-	-	-
S.C.	-	-	1	1	6	-	-	2	-	-	1	-	-	-	-
Ga.	-	-	-	-	10	-	1	2	3	6	-	-	-	1	1
Fla.	-	-	-	-	9	-	-	7	-	-	1	3	3	-	-
E.S. CENTRAL	-	-	-	-	3	19	2	5	5	-	1	-	-	1	5
Ky.	-	-	-	-	1	6	1	2	1	-	-	-	-	1	5
Tenn.	-	-	-	-	2	4	1	3	2	-	1	-	-	-	-
Ala.	-	-	-	-	9	-	-	1	-	-	-	-	-	-	-
Miss.	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
W.S. CENTRAL	-	1	-	-	2	37	6	31	16	3	15	1	2	9	12
Ark.	-	-	-	-	1	1	-	1	2	-	-	-	-	-	-
La.	-	-	-	-	7	-	-	-	1	1	-	-	-	-	-
Okla.	-	-	-	-	6	-	-	-	1	2	-	-	-	-	-
Tex.	-	1	-	-	2	23	6	30	14	1	12	1	2	9	12
MOUNTAIN	-	-	-	-	-	9	7	15	11	1	7	4	2	4	3
Mont.	-	-	-	-	-	-	-	1	-	1	-	-	-	-	1
Idaho	-	-	-	-	2	-	1	2	-	-	-	-	-	1	1
Wyo.	-	-	-	-	-	-	-	-	-	-	3	1	1	-	-
Colo.	-	-	-	-	4	-	1	2	1	3	2	-	-	-	-
N. Mex.	-	-	-	-	1	-	-	-	-	3	2	-	-	-	-
Ariz.	-	-	-	-	-	7	10	3	-	-	1	1	1	1	-
Utah	-	-	-	-	2	-	3	2	-	-	-	-	-	2	1
Nev.	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
PACIFIC	1	15	1	5	16	48	8	42	59	2	4	18	14	35	76
Wash.	-	-	-	-	5	13	1	5	15	-	4	-	-	-	4
Oreg.	-	-	-	-	4	-	-	-	-	-	2	-	-	-	-
Calif.	1	14	1†	5	10	29	7	32	44	2	4	12	14	35	71
Alaska	U	-	U	-	-	-	U	4	-	U	-	-	U	-	-
Hawaii	-	1	-	-	1	2	-	1	-	-	-	-	-	-	1
Guam	U	-	U	-	-	-	U	-	1	U	-	-	U	-	1
P.R.	4	4	-	-	7	2	-	11	2	-	-	-	-	-	2
V.I.	-	2	-	1	-	-	-	-	-	-	-	-	-	1	-
Pac. Trust Terr.	U	-	U	-	-	-	U	-	-	U	-	-	U	-	-

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

U: Unavailable

† International

§ Out-of-state

**TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending February 5, 1983 and February 6, 1982 (5th 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
<b>UNITED STATES</b>	<b>3,295</b>	<b>3,319</b>	<b>7</b>	<b>433</b>	<b>1,785</b>	<b>14</b>	<b>22</b>	<b>6</b>	<b>410</b>
<b>NEW ENGLAND</b>	<b>91</b>	<b>59</b>	<b>-</b>	<b>12</b>	<b>31</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>-</b>
Maine	2	-	-	3	3	-	-	-	-
N.H.	-	-	-	-	-	-	-	-	-
Vt.	-	-	-	-	-	-	-	-	-
Mass.	63	40	-	4	10	-	1	-	-
R.I.	2	5	-	1	5	-	-	-	-
Conn.	24	14	-	4	13	-	-	-	-
<b>MID ATLANTIC</b>	<b>353</b>	<b>453</b>	<b>1</b>	<b>81</b>	<b>349</b>	<b>-</b>	<b>6</b>	<b>-</b>	<b>12</b>
Upstate N.Y.	14	35	1	10	66	-	2	-	9
N.Y. City	218	307	-	34	129	-	3	-	-
N.J.	66	38	-	23	83	-	1	-	-
Pa.	55	73	-	14	71	-	-	-	3
<b>E. N. CENTRAL</b>	<b>135</b>	<b>182</b>	<b>1</b>	<b>90</b>	<b>307</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>32</b>
Ohio	49	23	-	7	35	-	1	-	4
Ind.	25	23	-	13	39	-	-	-	-
Ill.	25	98	-	50	163	-	-	-	13
Mich.	24	29	1	15	56	-	1	-	-
Wis.	12	9	-	5	14	-	-	-	15
<b>W. N. CENTRAL</b>	<b>37</b>	<b>60</b>	<b>1</b>	<b>16</b>	<b>57</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>57</b>
Minn.	22	12	-	1	4	-	-	-	7
Iowa	2	1	1	2	10	-	-	-	22
Mo.	9	37	-	13	37	4	1	2	10
N. Dak.	-	2	-	-	-	-	-	-	5
S. Dak.	-	-	-	-	2	-	-	-	5
Nebr.	1	-	-	-	1	-	-	-	2
Kans.	3	8	-	-	3	-	-	-	6
<b>S. ATLANTIC</b>	<b>868</b>	<b>910</b>	<b>-</b>	<b>82</b>	<b>395</b>	<b>5</b>	<b>3</b>	<b>-</b>	<b>159</b>
Del.	9	2	-	-	1	-	-	-	-
Md.	49	65	-	14	84	1	-	-	73
D.C.	44	59	-	1	12	-	-	-	-
Va.	61	60	-	6	21	1	2	-	66
W. Va.	2	3	-	2	16	-	1	-	7
N.C.	88	75	-	7	16	3	-	-	-
S.C.	88	56	-	7	39	-	-	-	2
Ga.	155	191	-	14	64	-	-	-	9
Fla.	393	399	-	31	142	-	-	-	2
<b>E.S. CENTRAL</b>	<b>234</b>	<b>250</b>	<b>1</b>	<b>45</b>	<b>171</b>	<b>1</b>	<b>-</b>	<b>3</b>	<b>32</b>
Ky.	15	13	-	17	46	-	-	-	9
Tenn.	64	49	-	11	53	1	-	1	19
Ala.	105	80	1	12	54	-	-	2	4
Miss.	50	108	-	5	18	-	-	-	-
<b>W.S. CENTRAL</b>	<b>847</b>	<b>903</b>	<b>-</b>	<b>24</b>	<b>105</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>60</b>
Ark.	9	25	-	2	4	3	-	-	14
La.	157	168	-	2	21	-	-	-	1
Okla.	21	16	-	5	25	-	-	-	6
Tex.	660	694	-	15	55	-	-	-	39
<b>MOUNTAIN</b>	<b>65</b>	<b>81</b>	<b>1</b>	<b>6</b>	<b>57</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>21</b>
Mont.	2	-	-	1	6	-	-	-	19
Idaho	1	1	1	2	5	-	-	-	-
Wyo.	1	6	-	1	2	-	-	-	-
Colo.	12	26	-	-	-	-	-	-	-
N. Mex.	27	15	-	-	10	1	-	-	-
Ariz.	14	14	-	2	32	-	-	-	2
Utah	3	2	-	-	-	-	-	-	-
Nev.	5	17	-	-	2	-	-	-	-
<b>PACIFIC</b>	<b>665</b>	<b>421</b>	<b>2</b>	<b>77</b>	<b>313</b>	<b>-</b>	<b>9</b>	<b>1</b>	<b>37</b>
Wash.	25	14	-	7	15	-	-	-	-
Oreg.	7	18	-	2	14	-	-	-	-
Calif.	625	381	2	68	270	-	9	1	37
Alaska	-	1	U	U	-	-	-	-	-
Hawaii	8	7	-	-	14	-	-	-	-
Guam	-	-	U	U	-	-	-	-	-
P.R.	-	38	-	22	56	-	-	-	6
V.I.	1	-	-	-	-	-	-	-	-
Pac. Trust Terr.	-	-	U	U	-	-	-	-	-

U: Unavailable

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

Reporting Area	All Causes, By Age (Years)						P&I** Total	Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1			All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	663	445	150	38	11	19	54	S. ATLANTIC	1,302	767	355	86	41	53	44
Boston, Mass.	182	118	39	13	6	6	22	Atlanta, Ga.	162	93	48	12	5	4	4
Bridgeport, Conn.	47	30	14	3	-	-	3	Baltimore, Md.	311	184	81	23	13	10	9
Cambridge, Mass.	26	18	4	4	-	-	2	Charlotte, N.C.	76	46	20	5	3	2	7
Fall River, Mass.	24	18	5	-	-	1	-	Jacksonville, Fla.	117	66	37	7	4	3	3
Hartford, Conn.	62	38	19	2	1	2	4	Miami, Fla.	95	47	33	8	-	7	2
Lowell, Mass.	36	22	13	-	-	1	5	Norfolk, Va.	46	28	13	1	2	2	4
Lynn, Mass.	19	13	4	2	-	-	-	Richmond, Va.	73	46	20	2	3	2	2
New Bedford, Mass.	29	19	9	-	1	-	-	Savannah, Ga.	47	23	16	4	1	3	4
New Haven, Conn.	39	26	6	4	1	2	7	St. Petersburg, Fla.	101	83	12	2	1	3	4
Providence, R.I.	69	47	13	6	-	3	5	Tampa, Fla.	67	41	17	3	2	4	2
Somerville, Mass.	9	8	-	-	-	1	-	Washington, D.C.	168	84	51	16	7	10	3
Springfield, Mass.	36	23	10	1	1	1	1	Wilmington, Del.	39	26	7	3	-	3	-
Waterbury, Conn.	31	24	5	1	-	1	1	E.S. CENTRAL	817	521	187	42	23	42	53
Worcester, Mass.	54	41	9	2	1	1	4	Birmingham, Ala.	123	87	26	2	2	6	5
MID. ATLANTIC	2,639	1,780	547	182	64	66	112	Chattanooga, Tenn.	67	47	12	5	3	-	9
Albany, N.Y.	60	41	9	5	1	4	1	Knoxville, Tenn.	44	31	9	2	1	1	-
Allentown, Pa.	18	13	4	1	-	-	-	Louisville, Ky.	148	92	37	10	2	6	11
Buffalo, N.Y.	141	92	28	9	4	8	3	Memphis, Tenn.	200	125	35	15	8	16	16
Camden, N.J.	47	31	11	1	-	4	4	Mobile, Ala.	69	42	17	2	5	3	3
Elizabeth, N.J.	28	25	1	2	-	-	4	Montgomery, Ala.	30	21	7	-	-	2	3
Erie, Pa.†	50	32	13	2	2	2	2	Nashville, Tenn.	136	76	44	6	2	8	6
Jersey City, N.J.	51	31	10	6	2	2	-	W.S. CENTRAL	1,277	753	334	84	54	52	68
N.Y. City, N.Y.	1,550	1,040	317	126	35	32	57	Austin, Tex.	76	53	9	5	6	3	3
Newark, N.J.	59	29	23	2	4	1	2	Baton Rouge, La.	48	27	13	5	1	2	4
Paterson, N.J.	35	22	6	4	1	2	4	Corpus Christi, Tex.	42	28	8	-	4	2	-
Philadelphia, Pa.†	128	83	30	6	5	4	5	Dallas, Tex.	183	99	55	18	6	5	7
Pittsburgh, Pa.†	82	57	20	2	1	2	5	El Paso, Tex.	63	42	12	3	2	4	6
Reading, Pa.	32	25	6	1	-	-	2	Fort Worth, Tex.	79	41	22	3	3	10	13
Rochester, N.Y.	130	103	14	8	1	4	10	Houston, Tex.	225	128	58	23	11	5	7
Schenectady, N.Y.	30	28	1	-	1	-	5	Little Rock, Ark.	69	37	25	3	2	2	8
Syracuse, Pa.†	34	19	13	1	1	-	2	New Orleans, La.	135	78	42	6	5	4	-
Syracuse, N.Y.	68	41	18	2	5	2	2	San Antonio, Tex.	179	115	43	7	6	8	12
Trenton, N.J.	40	27	9	3	1	-	2	Shreveport, La.	78	51	16	6	3	2	3
Utica, N.Y.	27	17	9	1	-	-	2	Tulsa, Okla.	100	54	31	5	5	5	5
Yonkers, N.Y.	29	24	5	-	-	-	2	MOUNTAIN	675	421	163	52	16	22	33
E.N. CENTRAL	2,300	1,490	513	147	55	95	93	Albuquerque, N.Mex.	65	41	10	6	3	4	2
Akron, Ohio	71	47	16	3	1	4	-	Colorado Springs, Colo.	34	21	10	2	1	-	3
Canton, Ohio	32	22	9	1	-	-	3	Denver, Colo.	120	77	29	8	2	4	5
Chicago, Ill.	468	283	112	38	12	23	13	Las Vegas, Nev.	83	53	21	6	2	1	9
Cincinnati, Ohio	173	113	40	9	4	7	14	Ogden, Utah	18	10	3	4	-	1	1
Cleveland, Ohio	175	111	46	9	4	5	1	Phoenix, Ariz.	194	121	46	16	5	6	4
Columbus, Ohio	132	80	32	8	7	5	3	Pueblo, Colo.	28	19	8	1	-	-	5
Dayton, Ohio	87	61	19	3	-	4	1	Salt Lake City, Utah	40	18	14	4	1	3	1
Detroit, Mich.	308	180	66	33	12	17	11	Tucson, Ariz.	93	61	22	5	2	3	3
Evansville, Ind.	60	41	14	2	-	3	3	PACIFIC	2,081	1,425	403	115	67	71	129
Fort Wayne, Ind.	63	41	12	4	2	4	5	Berkeley, Calif.	20	11	4	4	1	-	-
Gary, Ind.	13	6	6	-	1	-	-	Fresno, Calif.	74	50	15	1	3	5	8
Grand Rapids, Mich.	70	48	15	2	1	4	2	Glendale, Calif.	40	34	5	-	1	-	1
Indianapolis, Ind.	175	115	39	10	4	7	4	Honolulu, Hawaii	75	45	19	5	2	4	6
Madison, Wis.	48	30	9	5	2	2	4	Long Beach, Calif.	110	78	24	1	4	3	2
Milwaukee, Wis.	120	89	25	2	2	2	2	Los Angeles, Calif.	717	475	146	53	28	15	29
Peoria, Ill.	52	38	9	3	-	2	8	Oakland, Calif.	90	51	25	6	5	3	6
Rockford, Ill.	49	41	4	2	-	2	7	Pasadena, Calif.	33	27	2	1	1	2	2
South Bend, Ind.	45	32	9	3	1	-	3	Portland, Ore.	113	83	18	4	3	5	4
Toledo, Ohio	108	75	19	8	2	4	8	Sacramento, Calif.	66	45	10	3	3	5	4
Youngstown, Ohio	51	37	12	2	-	-	1	San Diego, Calif.	147	101	30	5	3	8	13
W.N. CENTRAL	714	485	147	40	14	28	39	San Francisco, Calif.	164	98	38	10	4	14	7
Des Moines, Iowa	66	40	18	2	2	4	7	San Jose, Calif.	173	135	21	10	2	5	18
Duluth, Minn.	34	26	3	2	1	2	4	Seattle, Wash.	150	110	29	5	4	2	13
Kansas City, Kans.	30	17	9	4	-	-	4	Spokane, Wash.	59	43	9	5	2	-	9
Kansas City, Mo.	110	70	21	5	7	7	4	Tacoma, Wash.	50	39	8	2	1	-	7
Lincoln, Nebr.	34	23	9	2	-	-	1	TOTAL	12,468 <sup>††</sup>	8,087	2,799	786	345	448	625
Minneapolis, Minn.	83	61	13	6	-	3	-								
Omaha, Nebr.	87	64	14	5	1	3	7								
St. Louis, Mo.	159	108	32	10	3	6	3								
St. Paul, Minn.	67	50	13	2	-	2	5								
Wichita, Kans.	44	26	15	2	-	1	4								

\* 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.

**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 <sup>1</sup>	Estimated mortality September 1982		Estimated number of physician contacts September 1982 <sup>4</sup>
		Number <sup>2</sup>	Annual Rate/100,000 <sup>3</sup>	
ALL CAUSES (TOTAL)	10,006,060	156,500	821.1	89,481,000
Accidents and adverse effects (E800-E807, E810-E825, E826-E949)	2,684,850	7,640	40.1	4,902,000
Malignant neoplasms (140-208)	1,804,120	36,250	190.2	1,554,000
Diseases of heart (390-398, 402, 404-429)	1,636,510	58,150	305.1	5,521,000
Suicides, homicides (E950-E978)	1,401,880	4,210	22.1	—
Chronic liver disease and cirrhosis (571)	301,070	2,250	11.8	145,000
Cerebrovascular diseases (430-438)	280,430	12,520	65.7	848,000
Pneumonia and influenza <sup>5</sup> (480-487)	124,830	3,300	17.3	727,000
Diabetes mellitus (250)	117,340	2,550	13.4	2,362,000
Chronic obstructive pulmonary diseases and allied conditions (490-496)	110,530	4,630	24.3	1,309,000
Prenatal care <sup>6</sup>				2,203,000
Infant mortality <sup>6</sup>		3,400	10.9 /1,000 live births	

<sup>1</sup>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 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.

<sup>2</sup>The number of deaths is estimated by CDC by multiplying the estimated annual mortality rates (MVSR Vol. 31, No. 10, January 17, 1983, pp. 8-9) and the provisional U.S. population in that month (MVSR Vol. 31, No. 9, December 17, 1982, p.1) and dividing by the days in the month as a proportion of the days in the year.

<sup>3</sup>Annual mortality rates are estimated by NCHS (MVSR Vol. 31, No. 10, January 17, 1983, 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.

<sup>4</sup>IMS America *National Disease and Therapeutic Index* (NDTI), Monthly Report, September 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.

<sup>5</sup>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.

<sup>6</sup>"Prenatal care" (NDTI) and "Infant mortality" (MVSR Vol. 31, No. 9, December 17, 1982, p.1) are included in the table because "Years of potential life lost" does not reflect deaths of children < 1 year.

*Babesia microti* — Continued

with babesiosis reported to CDC in 1982, most were visitors or residents of Long Island or Shelter Island, New York, and Nantucket, Massachusetts.

Treatment of severe infection has had only limited success. Although chloroquine has been reported to give symptomatic relief, the drug does not appreciably affect parasitemia in hamsters or humans (4,5). Other anti-malarial drugs, such as quinacrine, primaquin, pyrimethamine, pyrimethamine-sulfadoxine, sulfadiazine, and tetracycline, have no effect on parasitemia in animals (5,6). Similarly, pentamidine is of questionable efficacy in humans (3,7,8) and is ineffective against *B. microti* in animals (5,6). Another anti-trypanosomal drug (diminazene aceturate) seemed effective against *B. microti* in one patient; however, his recovery was complicated by development of Guillain-Barré syndrome (7). Guillain-Barré was never definitively linked to the drug, but there has been reluctance to use it again.

The effectiveness of quinine-clindamycin against *B. microti* was first suggested when the drug combination was used to treat a patient with presumed chloroquine-resistant *P. falciparum* malaria, but in whom babesiosis was later diagnosed. Parasitemia was 8% at the beginning of therapy and decreased to 0% by day 7 of treatment (1). The efficacy of clindamycin and quinine in treating malaria caused by multidrug-resistant strains of *P. falciparum* was reported in 1974 (6). Why this drug combination should be effective against *B. microti* is unclear, since quinine alone has been reported to be ineffective against *B. microti* in humans and animals (8,10), and clindamycin alone has produced contradictory results in experimentally infected animals. Clindamycin was effective against *B. microti* in hamsters, but had no appreciable effect on parasitemia in mongolian jirds (6,10). Quinine plus clindamycin was reported more effective against *B. microti* than clindamycin alone in hamsters (10).

Cases 1 and 2 in the current report provided the first opportunity to evaluate prospectively the efficacy of quinine-clindamycin. Parasitemia decreased more rapidly than has been observed after using any other chemotherapeutic agent. Failure to infect hamsters with blood from these patients after treatment provides strong evidence that parasites were eradicated from their blood rather than reduced to a number undetectable by blood smears. While these results are encouraging, it must be emphasized that many patients with babesiosis have a mild clinical course and recover without specific anti-babesia chemotherapy. Therefore, it is recommended that treatment be reserved for seriously ill patients and that parasitologic response, as well as adverse reactions to treatment, be carefully recorded to provide a better picture of the efficacy of this drug regimen in a larger group of patients.

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## Diarrheal Diseases Control Program in the Americas

Diarrheal disease constitutes a clinical syndrome of varied etiology that includes specific infectious diseases, such as shigellosis, salmonellosis, amebiasis, and other diseases caused by bacteria, protozoa, viruses, and helminths.

In Latin America, these diseases constitute a major public health problem, especially among children under 5 years of age. However, in most countries, it is difficult to accurately determine the extent of the problem. Current clinical and laboratory services are not always adequate in either urban and rural areas to identify these infectious agents, and the etiologies of reported diarrhea episodes are often unknown. Furthermore, due to surveillance system limitations, the number of reported cases and deaths does not reflect the magnitude of the problem. More specifically, reliable morbidity data for diarrheal diseases are difficult to collect because of reporting constraints characteristic of many national health systems. The coverage and quality of case reporting varies from country to country and by geographical regions within each country. The extent to which various populations receive health care services and the completeness of disease surveillance by those services also influence the data.

Mortality data offer more opportunities for analysis, but similar shortcomings may exist; e.g., infant deaths may be underreported, and the cause of death may be unknown, inaccurate, or nonspecific. Nevertheless, available mortality data provide some insight into the seriousness of the problem. In interpreting the significance of mortality data in Tables 2 and 3, the wide variations in data compilation and reporting must be considered.

Around 1978, diarrheal diseases\* were among the first and second causes of all deaths

\*Codes 008 (Enteritis) and 009 (Other diarrheal diseases) of the *International Classification of Diseases* (9th revision, 1975). Geneva: World Health Organization, 1977.

**TABLE 2. Number of deaths and age-specific death rates,\* around 1970, from all diarrheal diseases — selected countries in the Americas**

Country	Year	<1 year		1-4 years		<5 years	
		Number	Rate	Number	Rate	Number	Rate
Argentina	70	4,561	880.5	722	38.5	5,283	220.8
Belize	70	39	823.6	15	86.7	54	245.1
Chile	70	3,853	1,418.1	422	46.7	4,275	363.8
Costa Rica	70	845	1,509.5	271	108.1	1,116	363.9
Cuba	71	1,313	564.7	82	8.6	1,395	118.2
Dominica	70	25	984.6	13	127.1	38	297.7
Dominican Republic	70	1,642	1,177.9	612	111.1	2,254	326.6
Ecuador	70	2,382	968.9	1,691	194.4	4,073	365.1
El Salvador	70	2,245	1,457.7	2,055	386.2	4,300	626.8
Guatemala	70	3,643	1,817.8	5,749	807.6	9,392	1,029.5
Honduras	70	880	792.7	1,166	299.5	2,046	409.0
Martinique	70	63	598.4	20	47.9	83	158.8
Mexico	70	37,197	1,802.1	20,464	274.0	57,661	605.0
Nicaragua	75	984	1,224.8	316	109.1	1,300	351.5
Panama	70	275	588.6	209	112.5	484	208.2
Peru	70	5,501	1,037.3	3,798	209.1	9,299	396.3
St. Vincent	70	47	1,080.4	16	118.6	63	353.1
Trinidad and Tobago	70	169	710.0	28	25.5	197	147.4
Uruguay	70	254	479.2	14	6.4	268	98.8
Venezuela	70	3,673	874.7	1,373	94.2	5,046	268.7
Total		69,591	1,346.3	39,036	209.2	108,627	456.0

\*Per 100,000 population

*Diarrheal Diseases — Continued*

among children under 1 year of age in 20 of 31 countries reporting data.

Around 1970, for 20 selected Latin American countries, 108,627 deaths due to diarrheal diseases<sup>†</sup> were recorded among children less than 5 years of age, yielding an age-specific death rate of 456.0 per 100,000 population. Of these deaths, 69,591 occurred among children under 1 year, for an age-specific death rate of 1,346.07/100,000 (Table 2).

For the same countries, around 1978, 80,307 diarrheal deaths were reported among children under 5 years of age, producing an age-specific death rate of 290.2/100,000. In the under-1-year age group, 55,672 deaths occurred, for an age-specific death rate of 934.0 (Table 3). These figures indicate a 26% decrease over the 8-year period in the overall age-specific mortality rate due to diarrheal diseases among children under 5 years of age. This decrease in mortality had occurred by annual proportions in 18 of the 20 countries reporting detailed information.

Although the 1978 age-specific diarrheal mortality rate among children under 5 years was only 5.0/100,000 in North America, the problem was much more acute in the Caribbean and in Central and South America, where the rates were 82.1, 379.4, and 207.6, respectively. Comparing rates for 1970 and 1978, reported age-specific diarrheal disease death rates among children under 5 years of age decreased 54% in the Caribbean and approximately 25% in both Central and South America.

Age-specific diarrheal mortality rates varied considerably throughout the countries of the Americas. In 1978, relatively high diarrheal death rates for the under-1-year age group were

<sup>†</sup>Defined according to categories of the 8th revision of the *International Classification of Diseases*, including other salmonella infections (003), bacillary dysentery (004), amebiasis (006), enteritis (008), and other diarrheal diseases (009).

**TABLE 3. Number of deaths and age-specific death rates,\* around 1978, from all diarrheal diseases — selected countries in the Americas**

Country	Year	<1 year		1-4 years		<5 years	
		Number	Rate	Number	Rate	Number	Rate
Argentina	78	2,641	463.3	420	20.0	3,061	114.9
Belize	79	45	726.7	9	41.2	54	194.9
Chile	79	705	264.9	85	8.6	790	63.4
Costa Rica	79	136	195.3	24	11.2	160	56.6
Cuba	78	237	122.7	41	4.3	278	24.3
Dominica	78	5	178.5	3	25.4	8	54.7
Dominican Republic	78	949	538.8	321	46.1	1,270	145.7
Ecuador	78	3,667	1,144.1	2,605	231.0	6,272	433.2
El Salvador	74	2,035	1,345.0	1,002	184.1	3,037	436.6
Guatemala	78	3,934	1,311.3	3,864	424.1	7,798	643.9
Honduras	78	926	873.5	624	112.4	1,550	234.4
Martinique	75	39	390.0	2	4.7	41	78.8
Mexico	76	30,806	1,258.8	11,393	127.2	42,199	370.1
Nicaragua	77	1,215	1,409.5	326	104.9	1,541	388.4
Panama	74	158	305.9	158	77.2	316	123.4
Peru	78	4,872	751.8	3,058	144.6	7,930	287.1
St. Vincent	79	23	403.5	8	45.9	31	134.1
Trinidad and Tobago	77	159	676.0	43	43.1	202	163.9
Uruguay	78	284	521.1	15	7.1	299	113.6
Venezuela	78	2,836	600.8	634	38.2	3,470	162.9
Total		55,672	934.0	24,635	113.4	80,307	290.2

\*Per 100,000 population



### *Diarrheal Diseases — Continued*

reported in Nicaragua (1,409.5), El Salvador (1,345.0), Guatemala (1,311.3), and Mexico (1,258.8). Together these four countries accounted for approximately 68% of all diarrheal deaths registered that year among children under 1 year of age. If a reduction of mortality in this age group is to occur, improved maternal and child nutrition activities will be necessary, especially the promotion of breast-feeding and proper preparation of food during the weaning period, and the early introduction of oral rehydration therapy. In 1978, the lowest reported age-specific mortality rates for diarrheal diseases in the Latin American region for the under-1-year age group were in Cuba (122.7) and Dominica (178.5). That same year, the highest diarrheal mortality among children ages 1-4 years was in Guatemala, with a reported age-specific rate of 424.1/100,000. Nevertheless, this represented a 52% decrease from the 1970 rate of 807.6/100,000 in that age group.

As health program coverage extends to scattered rural populations, the number of reported diarrhea cases and deaths is expected to increase, reflecting better information and reporting systems rather than an actual increase in incidence or severity. Treatment and prevention of diarrheal diseases should be an integral part of overall health care services and should incorporate multidisciplinary prevention strategies, such as health education, maternal and child health, water and sanitation, breast-feeding, and nutrition. When these measures and aggressive oral rehydration therapy are effectively introduced in developing countries, a substantial decrease in the number of diarrhea cases and deaths can be anticipated.

*Reported by Pan American Health Organization. Epidemiological Bulletin 1982;3(3):10-2.*

## Current Trends

### **Update: Influenza Activity — United States**

Influenza viruses continue to be isolated by laboratories in all areas of the United States, and one or more state health departments in each region now indicate influenza activity has increased beyond sporadic levels.

Isolates have been reported from 36 states, including those shown earlier (1) and Maryland, New Mexico, and Vermont, which have now reported their first isolates of the season. The number of influenza isolates obtained by the reporting laboratories has increased since January 1 and now totals 276 (Figure 1). Most of the virus isolates have been identified as type A(H3N2) related to the Bangkok/79 component of the current vaccine. Seven H1N1 isolates have been identified from sporadic cases in California, Illinois (4 cases), Minnesota, and Wisconsin, and three influenza type B isolates have been identified from sporadic cases in Ohio, Nebraska, and Texas.

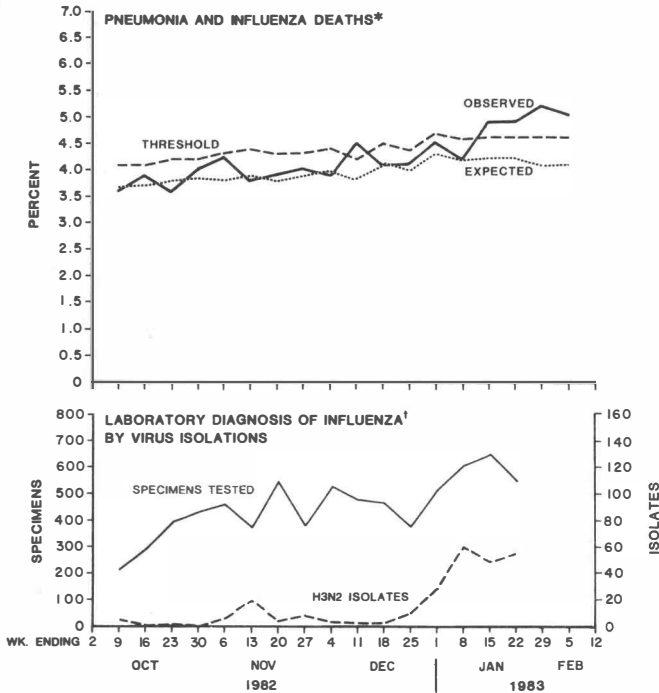
An excess in the ratio of deaths from pneumonia and influenza (P&I) to total deaths was reported from 121 cities for the fourth consecutive week (Figure 1). The ratio of P&I deaths for the week ending February 5, 1983, was 5.0 and the expected ratio was 4.1. Three states (Minnesota, Oklahoma, and Texas) reported widespread influenza activity for that same week.

*Reported by Respective State Epidemiologists and Laboratory Directors; Consolidated Surveillance Activity, Epidemiology Program Office, Influenza Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.*

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FIGURE 1. Indicators of influenza activity - United States, 1982-1983



\*REPORTED TO CDC BY 121 CITIES  
<sup>†</sup>REPORTED TO CDC BY WHO COLLABORATING LABORATORIES (INCLUDING MILITARY SOURCES)

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