

M M M M R

- 473 Measles — Washington, 1990
 476 State Coalitions for Prevention and Control of Tobacco Use
 485 Availability of Primaquine Phosphate from CDC
 485 Epidemiology in Action Course

MORBIDITY AND MORTALITY WEEKLY REPORT

Epidemiologic Notes and Reports

Measles — Washington, 1990

During the first 26 weeks of 1990, a total of 266 measles cases* (incidence: 5.8 cases per 100,000 population) was reported to the Washington State Department of Health from 15 (38%) of the state's 39 counties. This number is nearly five times the total reported statewide during all of 1989 (55 cases) and is the largest number of cases reported by the state during any year since 1979. Seventy-five (28%) of the reported cases were serologically confirmed. Detailed data were available for 218 cases reported during the first 22 weeks of 1990.

Of the 218 cases, 97 (45%) were in Hispanics (58 cases per 100,000); 14 (6%), American Indians (20 cases per 100,000); 100 (46%), non-Hispanic whites (3 cases per 100,000); five (2%), blacks (3 cases per 100,000); and two (1%), Asians (1 case per 100,000). Of the 97 Hispanic patients, 70 (72%) were Mexican citizens and 27 (28%) were U.S. citizens (Table 1).

*Illness with generalized rash lasting ≥ 3 days, temperature ≥ 38.3 C (≥ 101 F), and cough or coryza or conjunctivitis.

TABLE 1. Vaccination status of reported measles patients, by ethnic group — Washington, January 1–May 31, 1990

Ethnic group	Unvaccinated, vaccine indicated*		Unvaccinated, vaccine not indicated [†]		Vaccinated [§]		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Hispanic								
Mexican citizen	45	(64.3)	19	(27.1)	6	(8.6)	70	(100.0)
U.S. citizen	5	(18.5)	17	(63.0)	5	(18.5)	27	(100.0)
Non-Hispanic	48	(39.7)	35	(28.9)	38	(31.4)	121	(100.0)
Total	98	(45.0)	71	(32.6)	49	(22.5)	218	(100.0)

* ≥ 16 months of age, born in or after 1957, no evidence of immunity, and no medical contraindications.

[†]<16 months of age, born before 1957, religious/philosophic exemption, or medical contraindications.

[§]Vaccinated with live measles vaccine on or after first birthday.

Measles - Continued

One hundred one (46%) patients were <5 years of age, including 51 aged <16 months; 50 (23%) were aged 5-19 years; 67 (31%) were aged \geq 20 years, including 16 who were born before 1957 (Table 2). Children <5 years of age had the highest age-specific incidence rate (29.2 per 100,000) (Table 2). Of the 97 Hispanic patients, 59 (61%) were <5 years of age, including 32 who were <16 months of age.

Forty-nine (23%) patients had been vaccinated, including three who were vaccinated 2, 3, and 10 days, respectively, after exposure (Table 1). Of the 169 unvaccinated patients, 98 (58%) should have received vaccine according to routine indications[†], 54 (32%) were <16 months of age, 11 (7%) were born before 1957, and six (4%) had religious or philosophic exemptions. Of the 98 unvaccinated patients for whom vaccine was indicated, 45 (46%) were Hispanic Mexican citizens, five (5%) were Hispanic U.S. citizens, 46 (47%) were non-Hispanic U.S. citizens, and two (2%) were non-Hispanic visitors from other countries.

Fifteen (7%) cases were in persons infected in Mexico and were linked to 41 (19%) additional cases. Sixteen cases were in persons from other states and were linked to two additional cases.

At least 37 (17%) persons acquired measles through exposure in medical settings (three in physicians' offices, four on hospital wards, and 30 in emergency rooms). These persons included 16 medical workers, who infected at least six other persons (including three hospital patients). Serosurveys conducted at two hospitals as part of vaccination programs indicated that 119 (7%) of 1698 employees lacked immunity as defined by enzyme-linked immunosorbent assay. None of the 19 hospitals where patients were treated had an employment policy requiring measles immunity.

Many patients with measles were not isolated promptly because of initial misdiagnosis. At least nine measles patients at three hospitals presented with fever, cough, conjunctivitis, and rash but were initially diagnosed as having hepatitis, viral syndrome, drug reaction, or Kawasaki disease. They remained in emergency rooms for up to 13 hours, were hospitalized without isolation, or were sent home where additional exposures occurred in family members. At least 31 cases in family members, other hospital patients, visitors, or staff were linked to these nine patients.

[†]Vaccine is routinely indicated for persons born in or after 1957 who are \geq 16 months of age, lack evidence of immunity, have no medical contraindication to vaccination, and have no religious or philosophic exemption.

TABLE 2. Estimated incidence rates* of reported measles cases, by patient age group - Washington, January 1-May 31, 1990

Age (yrs)	No.	(%)	Rate
0-4	101	(46.3)	29.2
5-9	14	(6.4)	4.1
10-14	12	(5.5)	4.0
15-19	24	(11.0)	7.3
20-24	31	(14.2)	9.2
25-29	14	(6.4)	3.6
\geq 30	22	(10.1)	<1.0
Total	218	(100.0)	4.7

*Per 100,000 population, based on 1988 population estimates.

Measles – Continued

Two persons aged 30 and 36 years, respectively, died from measles-related pneumonia (case-fatality rate: 9.2 deaths per 1000 cases), representing the first measles-related deaths in Washington since 1978. Fifty-nine (27%) patients were hospitalized for a total of 236 days.

To control this epidemic, the Washington State Department of Health provided >76,000 doses of measles vaccine, at a cost of \$1.1 million, for use in vaccination clinics. These clinics were publicized in Spanish and English on radio and television, in newspapers, and by sound trucks driven through areas having a high proportion of Hispanic residents. In one severely affected county, the recommended age for measles vaccination was lowered to 12 months. In addition, susceptible students and staff were excluded from attendance at all 15 schools where at least one case occurred; at 13 of these schools, there was no evidence of secondary transmission. At one of the two schools where secondary transmission occurred, all students were vaccinated.

Reported by: L Jecha, MD, Benton-Franklin Health District; R Alexander, MD, Seattle-King County Dept of Public Health; C Winegar, Tacoma-Pierce County Health Dept; M Patnode, R Atwood, MD, Yakima Health District; R Nelson, B Baker, Immunization Program Office, JM Kobayashi, MD, State Epidemiologist, Washington State Dept of Health. Div of Field Svcs, Epidemiology Program Office, CDC.

Editorial Note: Two factors that contribute to the occurrence of measles outbreaks in the United States are the continuing importation of measles and the transmission of measles in medical settings (1–4). In the Washington epidemic, 26% of cases were acquired in Mexico or epidemiologically linked to these cases. In contrast, in the United States in 1989, 3% of cases were associated with importations (5). Seventeen percent of cases in the Washington epidemic were acquired in medical settings.

In Washington, Hispanics constitute 4% of the total population and are the largest ethnic minority group in the state. From 1980 through 1988, Washington's Hispanic population increased by an estimated 39% (6). Although measles vaccination coverage for the state's total Hispanic population is unknown, the high attack rate for Hispanics suggests that coverage is low.

Nearly half the cases in this epidemic occurred among unvaccinated persons for whom vaccine was indicated. Of these unvaccinated persons, more than half were Hispanic. Although vaccination programs should target all eligible persons, unique measles vaccination strategies are needed in those areas of the United States with large numbers of Hispanic persons who are recent immigrants, preschool-aged children, or undocumented residents. Vaccination clinics at churches and workplaces might reach undocumented residents who are reluctant to go to health departments or physicians' offices for vaccination. Any strategy should account for the potential reluctance of undocumented residents to have contact with government agencies.

Nosocomial transmission of measles continues to occur in the United States, in large part because measles cases are often not diagnosed and isolated promptly and because many medical workers are not immune (3,7). As in previous epidemics, a large proportion of the nosocomial transmission in Washington occurred in emergency rooms (3), possibly because emergency rooms are the primary source of medical care for many persons. Medical providers must be familiar with the clinical and epidemiologic features of measles, so that cases will be recognized promptly and patients isolated.

Measles – Continued

In Washington, the lack of hospital employment policies requiring immunity to measles accounted for disease in medical workers, major disruptions in staffing, substantial expenses for serologic testing and vaccination during the outbreak, and transmission from medical workers to others. In December 1989, Immunization Practices Advisory Committee (ACIP) recommendations were published that advised medical facilities to require all staff who will have direct patient contact to provide evidence of two live measles vaccinations, documentation of physician-diagnosed measles disease, or laboratory evidence of immunity (8).

References

1. Markowitz LE, Tomasi A, Hawkins CE, et al. International measles importations: United States, 1980–1985. *Int J Epidemiol* 1988;17:187–92.
2. Markowitz LE, Preblud SR, Orenstein WA, et al. Patterns of transmission in measles outbreaks in the United States, 1985–1986. *N Engl J Med* 1989;320:75–81.
3. Davis RM, Orenstein WA, Frank JA, et al. Transmission of measles in medical settings: 1980 through 1984. *JAMA* 1986;255:1295–8.
4. CDC. Measles—Los Angeles County, California, 1988. *MMWR* 1989;38:49–52,57.
5. CDC. Measles—United States, 1989 and first 20 weeks 1990. *MMWR* 1990;39:353–5,361–3.
6. Washington State Office of Financial Management. 1988 Population trends for Washington State. Olympia, Washington: Washington State Office of Financial Management, Forecasting Division, 1988.
7. Braunstein H, Thomas S, Ito R. Immunity to measles in a large population of varying age. *Am J Dis Child* 1990;144:296–8.
8. ACIP. Measles prevention: recommendations of the Immunization Practices Advisory Committee (ACIP). *MMWR* 1989;38(no. S-9).

Progress in Chronic Disease Prevention

State Coalitions for Prevention and Control of Tobacco Use

In October 1989, the Association of State and Territorial Health Officials (ASTHO) collected information on state* coalitions for prevention and control of tobacco use from all 50 states and the District of Columbia (1). State representatives for prevention and control of tobacco use submitted information describing their coalition's membership, history, funding, and activities. This report summarizes the basic characteristics and key activities of these coalitions.

As of December 31, 1989, 47 states had coalitions that addressed prevention and control of tobacco use. Hawaii, Kentucky, Mississippi, and South Carolina did not have state-level coalitions. Of the 47 coalitions, 44 concentrated exclusively on prevention and control of tobacco use; the remaining three also addressed other chronic diseases. In 1963, Colorado established the first state tobacco-related coalition; most (28) states established coalitions after 1984. Twenty coalitions reported receiving funding[†], and 10 of these reported receiving in-kind state support for clerical and administrative needs (Table 1).

*For purposes of this report, the District of Columbia is counted as a state.

[†]Includes grants, donations, membership fees, and funds from state and other governmental sources.

Tobacco Use — Continued

TABLE 1. Establishment of and annual funding for state* coalitions for prevention and control of tobacco use — United States, December 31, 1989

State	Coalition	Date established	Funding [†]	
			Amount	In kind [‡]
Alabama	Yes	1986	\$ 22,000	\$ 1,000
Alaska	Yes	1988	0	0
Arizona	Yes	1989	0	0
Arkansas	Yes	1989	0	0
California	Yes	1987	1,066,004	0
Colorado	Yes	1963	23,000	18,000
Connecticut	Yes	1982	0	0
Delaware	Yes	1986	¶	¶
District of Columbia	Yes	1965	100	0
Florida	Yes	1985	1,500	0
Georgia	Yes	1988	0	0
Hawaii	No			
Idaho	Yes	1981	0	0
Illinois	Yes	1978	0	0
Indiana	Yes	1986	0	0
Iowa	Yes	1984	0	0
Kansas	Yes	1985	0	0
Kentucky	No			
Louisiana	Yes	1988	0	0
Maine	Yes	1983	5,000	0
Maryland	Yes	1982	15,000	0
Massachusetts	Yes	1980	0	0
Michigan	Yes	1989	¶	¶
Minnesota	Yes	1984	57,550	0
Mississippi	No			
Missouri	Yes	1982	18,000	0
Montana	Yes	1986	70,000	70,000
Nebraska	Yes	1985	5,000	1,000
Nevada	Yes	1987	0	0
New Hampshire	Yes	1983	4,500	4,000
New Jersey	Yes	1985	0	0
New Mexico	Yes	1983	0	0
New York	Yes	1985	0	0
North Carolina	Yes	1988	0	0
North Dakota	Yes	1985	6,713	0
Ohio	Yes	1964	0	0
Oklahoma	Yes	1986	0	0
Oregon	Yes	1989	0	0
Pennsylvania	Yes	1980	0	0
Rhode Island	Yes	1987	0	0
South Carolina	No			
South Dakota	Yes	1984	0	0
Tennessee	Yes	1986	13,700	0
Texas	Yes	1970	0	0
Utah	Yes	1984	0	0
Vermont	Yes	1989	10,000	70,000
Virginia	Yes	1989	0	0
Washington	Yes	1988	3,000	0
West Virginia	Yes	1989	4,000	12,000
Wisconsin	Yes	1980	0	0
Wyoming	Yes	1985	250	100
Total states with coalitions	47			

*For purposes of this report, the District of Columbia is counted as a state.

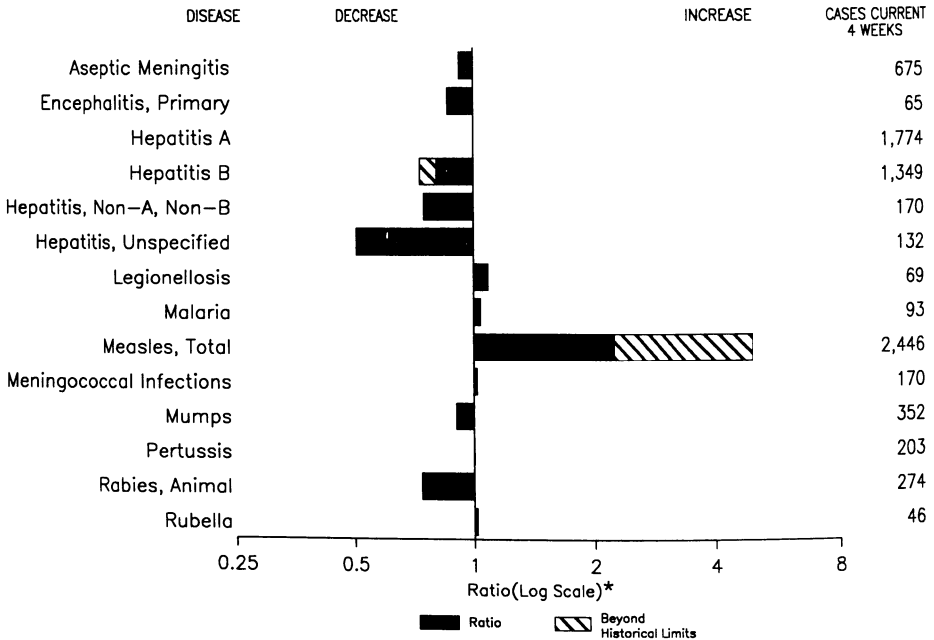
†Includes grants, donations, membership fees, and funds from state and other governmental sources.

‡Estimated dollar value of in-kind support.

¶Funding received but dollar value not available.

(Continued on page 483)

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending July 14, 1990, with historical data – United States



*Ratio of current 4-week total to mean of 15 4-week totals (from comparable, previous, and subsequent 4-week periods for past 5 years).

TABLE I. Summary – cases of specified notifiable diseases, United States, cumulative, week ending July 14, 1990 (28th Week)

	Cum. 1990		Cum. 1990
AIDS	23,347	Plague	-
Anthrax	-	Poliomyelitis, Paralytic*	-
Botulism: Foodborne	1	Psittacosis	72
Infant	32	Rabies, human	1
Other	2	Syphilis: civilian	25,514
Brucellosis	33	military	136
Cholera	2	Syphilis, congenital, age < 1 year	-
Congenital rubella syndrome	2	Tetanus	27
Diphtheria	1	Toxic shock syndrome	183
Encephalitis, post-infectious	57	Trichinosis	15
Gonorrhea: civilian	348,564	Tuberculosis	11,333
military	4,820	Tularemia	46
Leprosy	99	Typhoid fever	203
Leptospirosis	23	Typhus fever, tickborne (RMSF)	200
Measles: imported	764		
indigenous	14,249		

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

TABLE II. Cases of specified notifiable diseases, United States, weeks ending July 14, 1990, and July 15, 1989 (28th Week)

Reporting Area	AIDS Cum. 1990	Aseptic Mening- itis Cum. 1990	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel- losis Cum. 1990	Leprosy Cum. 1990
			Primary Cum. 1990	Post-in- fectious Cum. 1990	Cum. 1990	Cum. 1989	A Cum. 1990	B Cum. 1990	NA,NB Cum. 1990	Unspeci- fied Cum. 1990		
UNITED STATES	23,347	3,018	355	57	348,564	358,191	15,488	10,818	1,084	929	570	99
NEW ENGLAND	865	121	11	-	9,613	10,112	306	554	34	40	29	5
Maine	36	5	1	-	113	152	5	24	4	1	3	-
N.H.	43	11	-	-	104	93	5	24	3	2	3	-
Vt.	8	12	2	-	33	36	3	29	3	-	5	-
Mass.	499	38	3	-	3,851	3,969	226	348	16	35	13	4
R.I.	47	41	1	-	581	710	32	28	-	2	5	1
Conn.	232	14	4	-	4,931	5,152	35	101	8	-	-	-
MID. ATLANTIC	7,105	308	31	4	47,663	54,116	2,217	1,566	122	67	162	17
Upstate N.Y.	1,085	145	26	1	7,307	8,101	568	388	28	20	72	0
N.Y. City	3,980	67	2	1	19,624	21,997	269	448	18	31	25	12
N.J.	1,365	-	1	-	8,286	7,339	238	359	29	-	25	3
Pa.	675	96	2	2	12,446	16,679	1,142	371	47	16	40	1
E.N. CENTRAL	1,600	434	76	11	67,227	62,133	1,149	1,334	79	56	135	1
Ohio	373	95	18	3	20,688	15,901	119	240	25	8	49	-
Ind.	137	83	2	6	5,856	4,838	70	266	5	14	28	-
Ill.	676	77	24	2	20,971	19,439	567	235	22	15	8	1
Mich.	272	155	30	-	15,975	16,539	205	375	21	19	36	-
Wis.	142	24	2	-	3,737	5,416	188	218	6	-	14	-
W.N. CENTRAL	556	121	33	1	18,362	16,529	868	521	73	20	34	-
Minn.	94	9	11	1	2,245	1,718	137	62	18	-	-	-
Iowa	25	13	4	-	1,364	1,387	183	38	6	2	3	-
Mo.	337	60	3	-	10,969	9,885	291	328	29	14	20	-
N. Dak.	2	6	-	-	55	73	9	4	2	1	-	-
S. Dak.	1	4	2	-	119	141	64	4	2	-	-	-
Nebr.	24	12	5	-	921	873	50	22	4	-	6	-
Kans.	73	17	8	-	2,689	2,452	134	63	12	3	5	-
S. ATLANTIC	4,982	685	88	15	100,065	97,953	1,875	2,054	171	135	80	4
Del.	60	22	3	-	1,662	1,590	73	54	6	2	5	-
Md.	509	82	12	1	10,991	10,658	693	288	20	7	22	2
D.C.	373	2	-	-	7,021	6,505	12	28	4	-	-	-
Va.	496	96	34	2	8,455	8,147	157	124	26	94	7	-
W. Va.	35	17	6	-	666	740	11	50	3	1	2	-
N.C.	312	70	23	-	16,114	14,821	402	585	72	-	14	1
S.C.	210	10	1	-	8,016	8,848	23	327	11	8	13	-
Ga.	705	116	4	1	22,356	18,881	188	240	5	7	12	-
Fla.	2,282	270	5	11	24,784	27,763	316	358	24	16	5	1
E.S. CENTRAL	523	306	28	1	27,846	28,026	214	828	72	5	41	-
Ky.	95	69	7	-	3,105	2,730	52	285	22	4	18	-
Tenn.	173	55	15	1	8,842	9,165	102	441	35	-	12	-
Ala.	121	131	6	-	8,715	8,817	59	98	13	-	11	-
Miss.	134	51	-	-	7,184	7,314	1	4	2	1	-	-
W.S. CENTRAL	2,461	328	13	6	35,577	37,407	1,593	1,039	49	157	32	24
Ark.	85	6	1	-	4,516	3,935	278	48	6	12	7	-
La.	383	46	4	-	7,377	7,689	97	170	2	5	11	-
Okla.	120	23	1	5	3,220	3,199	319	76	16	13	10	-
Tex.	1,873	253	7	1	20,464	22,584	899	745	25	127	4	24
MOUNTAIN	593	139	12	-	6,822	7,750	2,472	811	85	74	25	-
Mont.	7	2	-	-	100	108	68	40	2	4	1	-
Idaho	15	-	-	-	71	104	47	49	8	-	3	-
Wyo.	2	1	1	-	94	51	23	9	5	1	-	-
Colo.	188	30	3	-	1,323	1,718	154	90	26	26	3	-
N. Mex.	51	6	-	-	667	751	426	94	5	2	3	-
Ariz.	191	67	4	-	2,882	2,900	1,354	286	24	29	8	-
Utah	54	19	-	-	228	234	203	52	11	3	2	-
Nev.	85	14	4	-	1,457	1,884	197	191	4	9	5	-
PACIFIC	4,662	576	63	19	35,389	44,165	4,794	2,111	399	375	32	48
Wash.	327	-	4	1	2,958	3,360	842	339	74	16	8	3
Oreg.	172	-	-	-	1,368	1,628	482	234	25	6	-	-
Calif.	4,065	510	54	17	30,221	38,427	3,313	1,465	288	347	23	37
Alaska	23	19	4	-	570	484	101	37	3	1	-	-
Hawaii	75	47	1	1	272	266	56	36	9	5	1	8
Guam	1	-	-	-	107	77	5	1	-	7	-	-
P.R.	901	40	6	-	460	606	96	168	2	22	-	-
V.I.	4	-	-	-	233	362	1	8	-	-	-	-
Amer. Samoa	-	1	-	-	43	12	18	-	-	-	-	10
C.N.M.I.	-	-	-	-	101	53	9	6	-	15	-	3

N: Not notifiable

U: Unavailable

C.N.M.I.: Commonwealth of the Northern Mariana Islands

TABLE II. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending July 14, 1990, and July 15, 1989 (28th Week)

Reporting Area	Malaria	Measles (Rubeola)					Meningococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total		1990	Cum. 1990	1990	Cum. 1990	Cum. 1989	1990	Cum. 1990	Cum. 1989
		1990	Cum. 1990	1990	Cum. 1990	Cum. 1989									
UNITED STATES	566	286	14,249	18	764	9,042	1,512	92	3,360	41	1,583	1,363	24	650	261
NEW ENGLAND	51	-	174	-	20	299	113	-	31	11	205	225	-	7	6
Maine	1	-	27	-	2	-	10	-	-	-	6	4	-	-	-
N.H.	4	-	-	-	8	8	5	-	7	-	12	5	-	1	4
Vt.	4	-	-	-	1	2	10	-	1	-	6	6	-	-	1
Mass.	30	-	15	-	4	41	57	-	8	11	169	193	-	2	1
R.I.	4	-	27	-	3	41	10	-	5	-	2	8	-	1	-
Conn.	8	-	105	-	2	207	21	-	10	-	10	9	-	3	-
MID. ATLANTIC	119	39	818	4	148	843	220	1	202	5	311	89	2	4	25
Upstate N.Y.	24	-	194	2 ¹	109	134	86	1	86	5	249	38	2	3	8
N.Y. City	41	39	181	2 ¹	21	69	25	-	-	-	-	2	-	-	15
N.J.	39	-	105	-	9	406	49	-	47	-	13	23	-	-	2
Pa.	15	U	338	U	9	234	60	U	69	U	49	26	U	1	-
E.N. CENTRAL	25	6	2,979	-	141	2,407	198	4	354	3	317	169	-	30	23
Ohio	5	-	451	-	3	661	64	-	75	-	86	1	-	1	3
Ind.	1	2	314	-	1	51	19	-	13	2	58	13	-	-	-
Ill.	9	-	1,148	-	10	1,524	49	-	114	-	85	75	-	17	18
Mich.	7	4	332	-	125	15	45	4	115	1	39	25	-	9	1
Wis.	3	-	734	-	2	156	21	-	37	-	49	55	-	3	1
W.N. CENTRAL	9	39	733	-	13	567	51	2	90	1	57	60	-	6	4
Minn.	1	39	314	-	3	10	10	-	-	-	6	11	-	1	-
Iowa	1	-	23	-	1	5	1	1	15	1	7	10	-	4	-
Mo.	6	-	78	-	-	307	20	1	43	-	37	34	-	-	3
N. Dak.	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-
S. Dak.	-	-	15	-	8	-	2	-	-	-	1	1	-	-	-
Nebr.	-	-	97	-	1	112	5	-	3	-	2	3	-	-	-
Kans.	1	-	206	-	-	133	13	-	29	-	3	1	-	-	1
S. ATLANTIC	131	19	792	11	125	396	274	26	1,385	3	140	99	-	13	8
Del.	2	-	8	-	3	37	1	-	3	-	2	1	-	-	-
Md.	34	-	181	-	18	50	31	24	828	2	39	10	-	1	2
D.C.	10	-	10	-	7	13	11	1	25	-	14	-	-	1	-
Va.	35	-	66	-	2	20	35	-	77	-	14	6	-	1	-
W. Va.	1	-	6	-	-	28	12	-	41	-	10	15	-	-	-
N.C.	9	-	10	-	13	167	42	-	185	-	32	20	-	-	1
S.C.	-	-	4	-	-	-	20	-	21	-	5	-	-	-	-
Ga.	11	19	80	10 ¹	26	-	50	-	56	-	14	13	-	-	-
Fla.	29	-	427	15	56	81	72	1	149	1	10	34	-	10	5
E.S. CENTRAL	13	2	112	-	2	156	87	2	66	6	87	61	-	1	2
Ky.	2	-	24	-	-	20	27	-	-	-	-	1	-	-	-
Tenn.	7	-	42	-	-	92	32	1	33	4	33	21	-	1	2
Ala.	4	2	17	-	2	44	26	-	9	2	49	33	-	-	-
Miss.	-	-	29	-	-	-	2	N	N	-	5	6	-	-	-
W.S. CENTRAL	26	146	3,792	2	87	2,885	106	29	554	2	39	87	-	2	36
Ark.	1	2	12	15	29	2	16	-	128	-	2	12	-	1	-
La.	1	-	10	-	-	6	26	2	88	1	12	6	-	-	5
Okla.	7	2	154	-	-	92	12	-	103	1	25	14	-	1	1
Tex.	17	142	3,616	1 ¹	58	2,785	52	27	235	-	-	55	-	-	30
MOUNTAIN	15	33	670	1	84	313	50	8	273	2	159	399	4	100	35
Mont.	1	-	-	-	1	13	9	-	1	-	24	17	-	13	1
Idaho	3	-	15	-	6	2	5	6	140	-	32	56	2	48	32
Wyo.	-	-	-	-	11	-	-	-	2	-	-	-	-	-	1
Colo.	2	1	77	15	40	61	15	-	19	1	53	23	1	4	-
N. Mex.	1	-	82	-	11	31	8	N	N	-	9	6	-	-	-
Ariz.	7	14	249	-	12	109	4	2	89	-	27	286	1	30	-
Utah	-	2	58	-	-	95	4	-	8	-	10	10	-	1	1
Nev.	1	16	189	-	3	2	5	-	15	-	4	1	-	4	1
PACIFIC	17	2	4,179	-	144	1,176	413	20	405	8	268	174	18	487	122
Wash.	16	-	176	-	68	34	49	-	38	-	63	58	-	-	2
Oreg.	10	-	142	-	44	16	45	N	N	-	20	7	-	7	2
Calif.	146	-	3,775	-	29	1,103	308	18	356	6	161	105	17	470	99
Alaska	2	-	78	-	2	-	7	-	-	-	3	-	-	-	-
Hawaii	3	2	8	-	1	26	4	2	11	2	21	4	1	10	21
Guam	1	U	-	U	1	1	-	U	2	U	-	1	U	-	-
P.R.	2	-	808	-	-	437	9	-	7	-	5	4	-	-	6
V.I.	-	U	21	U	3	4	-	U	6	U	-	-	U	-	-
Amer. Samoa	35	U	89	U	-	-	-	U	14	U	-	-	U	-	-
C.N.M.I.	-	U	-	U	-	-	-	U	7	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.
 N: Not notifiable U: Unavailable ¹International ²Out-of-state

TABLE II. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending July 14, 1990, and July 15, 1989 (28th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula- remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1990	Cum. 1989	Cum. 1990	Cum. 1990	Cum. 1989	Cum. 1990	Cum. 1990	Cum. 1990	Cum. 1990
UNITED STATES	25,514	22,495	183	11,333	11,005	46	203	200	2,172
NEW ENGLAND	954	882	13	298	286	1	14	5	4
Maine	5	5	4	-	3	-	-	-	-
N.H.	39	6	1	3	16	-	-	-	2
Vt.	1	-	-	7	4	-	-	-	-
Mass.	365	268	7	141	143	1	13	4	-
R.I.	7	15	-	74	37	-	-	-	-
Conn.	537	588	1	73	83	-	1	1	2
MID. ATLANTIC	5,461	4,652	17	2,817	2,090	1	51	10	480
Upstate N.Y.	445	456	6	240	181	-	9	6	28
N.Y. City	2,397	2,032	5	1,693	1,187	-	27	-	-
N.J.	888	709	-	490	345	1	13	3	147
Pa.	1,731	1,455	6	394	377	-	2	1	305
E.N. CENTRAL	1,735	911	47	1,169	1,177	-	20	17	77
Ohio	273	67	17	179	219	-	4	12	3
Ind.	35	33	2	94	115	-	1	-	-
Ill.	670	407	7	580	523	-	11	-	18
Mich.	572	334	21	264	254	-	3	5	15
Wis.	185	70	-	52	66	-	1	-	41
W.N. CENTRAL	228	180	23	297	275	17	-	16	358
Minn.	49	19	1	55	53	-	-	-	133
Iowa	33	21	4	34	28	-	-	-	17
Mo.	120	93	11	139	121	15	-	13	13
N. Dak.	1	2	-	10	11	-	-	-	47
S. Dak.	1	-	-	9	14	1	-	-	113
Nebr.	8	17	3	14	11	1	-	-	4
Kans.	16	28	4	36	37	-	-	3	31
S. ATLANTIC	8,202	8,224	18	2,350	2,304	3	22	83	621
Del.	100	86	1	23	25	-	-	1	9
Md.	641	404	1	179	195	-	8	6	228
D.C.	533	499	1	83	91	-	-	-	-
Va.	426	295	2	181	197	1	2	7	112
W. Va.	7	9	-	38	40	-	-	-	21
N.C.	949	508	10	277	272	1	2	44	4
S.C.	515	428	2	270	266	1	-	22	78
Ga.	2,134	1,992	-	473	349	-	1	3	118
Fla.	2,897	4,003	1	826	869	-	9	-	51
E.S. CENTRAL	2,214	1,391	6	870	928	5	1	25	105
Ky.	39	32	1	213	220	1	1	3	26
Tenn.	886	588	3	234	262	4	-	18	27
Ala.	682	441	2	269	262	-	-	4	52
Miss.	607	330	-	154	184	-	-	-	-
W.S. CENTRAL	3,946	2,946	7	1,404	1,324	14	5	37	258
Ark.	260	190	-	170	138	9	-	5	22
La.	1,068	690	1	140	168	-	-	1	-
Okla.	120	51	6	110	113	5	2	28	80
Tex.	2,498	2,015	-	984	905	-	3	3	156
MOUNTAIN	461	418	20	265	242	4	18	5	103
Mont.	-	1	-	10	7	-	-	3	31
Idaho	6	1	1	7	11	-	-	-	1
Wyo.	-	3	2	3	-	1	-	-	32
Colo.	22	53	6	14	20	-	-	-	3
N. Mex.	24	17	4	52	43	3	-	1	6
Ariz.	333	118	5	130	112	-	16	1	25
Utah	4	11	2	18	24	-	-	-	3
Nev.	72	214	-	31	25	-	2	-	2
PACIFIC	2,313	2,891	32	1,863	2,379	1	72	2	166
Wash.	218	235	4	137	118	1	2	-	-
Oreg.	80	137	-	64	77	-	2	-	-
Calif.	1,997	2,510	27	1,554	2,062	-	64	2	144
Alaska	10	2	-	23	35	-	-	-	22
Hawaii	8	7	1	85	87	-	4	-	-
Guam	1	4	-	14	43	-	-	-	-
P.R.	204	301	-	66	167	-	-	-	30
V.I.	1	2	-	4	4	-	-	-	-
Amer. Samoa	-	-	-	8	2	-	1	-	-
C.N.M.I.	1	7	-	29	9	-	4	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,* week ending July 14, 1990 (28th Week)

Reporting Area	All Causes, By Age (Years)						P&I**	Reporting Area	All Causes, By Age (Years)						P&I**
	All Ages	≥65	45-64	25-44	1-24	<1			Total	All Ages	≥65	45-64	25-44	1-24	
NEW ENGLAND	585	403	112	39	14	16	52	S. ATLANTIC	1,287	759	265	143	44	58	51
Boston, Mass.	168	99	38	15	7	8	16	Atlanta, Ga.	189	101	34	30	6	18	4
Bridgport, Conn.	46	36	6	2	1	1	5	Baltimore, Md.	220	153	41	15	7	4	16
Cambridge, Mass.	24	16	7	1	-	-	1	Charlotte, N.C.	79	42	18	13	2	4	4
Fall River, Mass.	18	12	6	-	-	-	-	Jacksonville, Fla.	132	84	27	13	1	6	7
Hartford, Conn.	30	18	6	4	2	-	3	Miami, Fla.	116	60	30	16	5	5	2
Lowell, Mass.	30	24	5	1	-	-	5	Norfolk, Va.	48	31	7	5	2	3	2
Lynn, Mass.	14	11	3	-	-	-	2	Richmond, Va.	80	43	20	10	3	2	6
New Bedford, Mass.	21	17	4	-	-	-	1	Savannah, Ga.	40	32	3	3	1	1	2
New Haven, Conn.	37	22	10	3	1	1	4	St. Petersburg, Fla.	66	47	9	4	3	3	4
Providence, R.I.	47	33	7	5	-	2	1	Tampa, Fla.	79	47	20	7	2	3	2
Somerville, Mass.	5	5	-	-	-	-	-	Washington, D.C.	215	103	51	25	12	9	2
Springfield, Mass.	44	36	4	4	-	-	6	Wilmington, Del.	23	16	5	2	-	-	-
Waterbury, Conn.	35	25	5	3	2	-	6	E.S. CENTRAL	753	499	154	66	14	20	47
Worcester, Mass.	66	49	11	1	1	4	2	Birmingham, Ala.	110	70	24	11	3	2	2
MID. ATLANTIC	2,787	1,784	515	328	78	82	136	Chattanooga, Tenn.	63	50	9	4	-	-	7
Albany, N.Y.	36	27	5	3	-	1	1	Knoxville, Tenn.	62	38	13	7	-	4	2
Allentown, Pa.	31	26	4	1	-	-	1	Louisville, Ky.	88	52	20	9	4	3	6
Buffalo, N.Y.	101	68	22	7	1	3	3	Memphis, Tenn.	130	91	26	10	2	1	15
Camden, N.J.	50	34	7	6	3	-	3	Mobile, Ala.	115	79	22	9	-	5	7
Elizabeth, N.J.	20	14	5	-	-	-	-	Montgomery, Ala.	39	26	4	5	2	2	1
Erie, Pa.†	39	32	4	2	-	1	4	Nashville, Tenn.	146	93	36	11	3	3	7
Jersey City, N.J.	50	31	10	7	-	2	1	W.S. CENTRAL	1,870	1,138	408	215	64	45	82
N.Y. City, N.Y.	1,464	869	272	224	51	48	51	Austin, Tex.	58	38	9	6	5	-	10
Newark, N.J.	73	32	15	18	4	4	7	Baton Rouge, La.	42	26	11	4	-	1	2
Paterson, N.J.	26	18	4	4	-	-	-	Corpus Christi, Tex.	38	23	9	2	1	3	5
Philadelphia, Pa.	396	262	91	26	11	6	28	Dallas, Tex.	264	152	53	40	11	8	3
Pittsburgh, Pa.†	90	63	18	2	2	5	5	El Paso, Tex.	59	38	12	4	4	1	4
Reading, Pa.	35	28	4	2	-	1	5	Fort Worth, Tex.	82	51	19	10	2	-	8
Rochester, N.Y.	129	95	21	6	2	5	14	Houston, Tex.‡	734	436	169	89	24	16	18
Schenectady, N.Y.	24	18	3	2	-	1	-	Little Rock, Ark.	65	39	18	7	-	1	4
Scranton, Pa.†	32	27	2	3	-	-	3	New Orleans, La.	164	102	28	18	6	10	-
Syracuse, N.Y.	109	78	20	6	3	2	6	San Antonio, Tex.	208	124	53	23	6	2	15
Trenton, N.J.	39	28	4	5	1	1	3	Shreveport, La.	53	33	14	5	-	1	4
Utica, N.Y.	20	17	2	-	-	1	1	Tulsa, Okla.	103	76	13	7	5	2	9
Yonkers, N.Y.	23	17	2	4	-	-	2	MOUNTAIN	693	439	134	77	25	18	32
E.N. CENTRAL	2,380	1,583	491	176	55	75	112	Albuquerque, N. Mex.	75	45	14	13	3	-	5
Akron, Ohio	72	48	20	2	-	2	4	Colo. Springs, Colo.	44	26	9	3	5	1	3
Canton, Ohio	44	30	9	4	1	-	5	Denver, Colo.	121	84	17	13	4	3	8
Chicago, Ill.‡	564	362	125	45	10	22	16	Las Vegas, Nev.	113	68	25	16	1	3	7
Cincinnati, Ohio	112	73	27	9	-	3	11	Ogden, Utah	25	16	6	1	1	1	2
Cleveland, Ohio	160	97	28	16	5	14	1	Phoenix, Ariz.	142	81	34	12	8	7	2
Columbus, Ohio	161	109	29	14	2	7	8	Pueblo, Colo.	22	16	4	1	1	-	2
Dayton, Ohio	118	82	22	9	3	2	10	Salt Lake City, Utah	44	23	11	9	1	-	-
Detroit, Mich.	276	167	63	35	4	7	7	Tucson, Ariz.	107	80	14	9	1	3	3
Evansville, Ind.	60	42	12	1	4	1	4	PACIFIC	2,076	1,324	403	211	78	55	118
Fort Wayne, Ind.	56	41	9	2	4	-	5	Berkeley, Calif.	19	15	1	2	-	1	2
Gary, Ind.	24	15	7	1	1	-	-	Fresno, Calif.	106	68	25	6	4	3	8
Grand Rapids, Mich.	63	43	8	5	3	4	2	Glendale, Calif.	24	19	1	3	1	-	5
Indianapolis, Ind.	199	132	45	7	8	7	3	Honolulu, Hawaii	103	67	23	8	3	2	9
Madison, Wis.‡	35	23	8	4	-	-	3	Long Beach, Calif.	82	50	18	8	2	4	14
Milwaukee, Wis.	147	106	29	9	3	-	3	Los Angeles Calif.	566	363	104	56	34	4	17
Peoria, Ill.	36	26	5	2	3	-	6	Oakland, Calif.	81	43	22	12	1	3	3
Rockford, Ill.	52	39	11	-	1	1	1	Pasadena, Calif.	25	18	4	-	-	3	2
South Bend, Ind.	42	35	3	2	-	2	3	Portland, Ore.	134	95	20	7	4	8	4
Toledo, Ohio	83	56	16	7	3	1	7	Sacramento, Calif.	155	88	31	16	11	9	16
Youngstown, Ohio	76	57	15	2	-	2	13	San Diego, Calif.	147	92	30	15	2	8	15
W.N. CENTRAL	768	547	130	53	24	14	40	San Francisco, Calif.	159	85	36	28	7	3	2
Des Moines, Iowa	77	47	20	4	4	2	4	San Jose, Calif.	186	125	36	16	3	6	11
Duluth, Minn.	25	21	2	1	-	1	1	Seattle, Wash.	193	127	35	27	3	1	-
Kansas City, Kans.	28	18	5	4	1	-	-	Spokane, Wash.	45	33	7	3	2	-	5
Kansas City, Mo.	90	71	7	6	4	2	9	Tacoma, Wash.	51	36	10	4	1	-	5
Lincoln, Nebr.	37	31	4	1	1	-	-	TOTAL	13,199††	8,476	2,612	1,308	396	383	670
Minneapolis, Minn.	129	88	24	10	4	3	11								
Omaha, Nebr.	99	75	14	7	2	1	6								
St. Louis, Mo.	146	100	28	10	6	2	-								
St. Paul, Minn.	57	42	12	2	1	-	1								
Wichita, Kans.	80	54	14	8	1	3	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 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

††Total includes unknown ages.

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

Tobacco Use – Continued

All coalitions included a representative from the state public health agency as well as other health professionals (e.g., physicians, nurses, health researchers, and/or hospital administrators). Coalition members represented volunteer, community, policy-relevant, and education groups. In some states, coalitions also included economists (Florida, Michigan, and Vermont), military officials (Alabama, Alaska, and Delaware), representatives from the tobacco industry (Maine), vendor organizations (Indiana and Vermont), youth groups (Maine, Massachusetts, Montana, New York, and Vermont), sports groups (Delaware, Michigan, and Vermont), and veterans groups (Alabama, Minnesota, and Vermont).

The most frequently reported coalition activities were 1) providing public education and information (34 states), 2) lobbying for antitobacco legislation (25 states), 3) educating health-care professionals (21 states), 4) developing and implementing a state plan for tobacco control (18 states), and 5) conducting research and evaluation (12 states) (Table 2). Other reported activities included promoting a Smoke-Free Class of 2000 (cosponsored by the American Lung Association, the American Heart Association, and the American Cancer Society [ACS]) (Illinois, Minnesota, and New Hampshire), advising the state health department (New York and Ohio), and anti-tobacco advertising (Colorado).

Reported by: State specialists for prevention and control of tobacco use. KM Marconi, PhD, Public Health Applications Br, National Cancer Institute; GC Bennett, MPH, Health Education Br, National Heart, Lung, and Blood Institute, National Institutes of Health. Program Svcs Activity, Office on Smoking and Health, Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: Direct community involvement is essential to achieve a smoke-free society by the year 2000. State coalitions for prevention and control of tobacco use bring together a broad range of persons and organizations to reach a common goal: reducing the prevalence of tobacco use. Coalitions can amplify state resources by involving community groups, volunteer organizations, advocacy groups, educators, and representatives of target populations. Leadership from physicians and other health officials is needed to ensure the success of community coalitions.

State coalitions for prevention and control of tobacco use should set specific, measurable objectives that enhance the strength and credibility of the coalitions' immediate plans, as well as maintain support for long-term public health efforts (2). Coalitions should provide direction for the development of state plans for prevention and control of tobacco use, enlist political and constituent support, ensure input from special target groups, and provide technical expertise in advising policymakers. These issues are discussed in more detail in the *Guide to Public Health Practice: State Health Agency Tobacco Prevention and Control Plans* (3).

The American Stop Smoking Intervention Study (ASSIST), sponsored by the ACS and the National Cancer Institute (NCI), National Institutes of Health (NIH), will provide additional funding to approximately 15 states or large municipalities to support coalition initiatives for prevention and control of tobacco use (1). Agencies working through a national network of state public health professionals to increase public health efforts to prevent and control tobacco use at the state level include ASTHO; CDC's Office on Smoking and Health, Center for Chronic Disease Prevention and Health Promotion; and NCI and the National Heart, Lung, and Blood Institute (NHLBI), NIH (4).

Additional information on developing tobacco-related coalitions is available in *With Every Beat of Your Heart*, published by NHLBI (5), and *Smoke Fighting: A Smoking Control Movement Building Guide*, published by ACS (2).

Tobacco Use — Continued

TABLE 2. Summary of activities of state* coalitions for prevention and control of tobacco use — December 31, 1989

State	Public education and information	Legislation	Professional education	Developing a state plan for tobacco control	Research/evaluation
Alabama	Yes	Yes	Yes	No	No
Alaska	No	Yes	No	No	No
Arizona	No	No	No	Yes	No
Arkansas	No	Yes	No	No	No
California	No	Yes	No	No	No
Colorado	Yes	No	Yes	Yes	Yes
Connecticut	Yes	Yes	Yes	No	No
Delaware	Yes	Yes	Yes	Yes	No
District of Columbia	Yes	Yes	Yes	No	No
Florida	Yes	Yes	No	Yes	Yes
Georgia	Yes	No	No	No	No
Idaho	Yes	Yes	No	No	No
Illinois	Yes	Yes	Yes	Yes	Yes
Indiana	Yes	No	Yes	No	No
Iowa	Yes	No	No	No	No
Kansas	Yes	No	Yes	No	Yes
Louisiana	Yes	No	Yes	No	No
Maine	Yes	Yes	No	No	No
Maryland	No	Yes	No	No	No
Massachusetts	Yes	Yes	Yes	Yes	No
Michigan	No	Yes	No	Yes	No
Minnesota	No	No	Yes	No	No
Missouri	No	Yes	No	No	No
Montana	Yes	No	Yes	Yes	Yes
Nebraska	Yes	No	No	No	No
Nevada	No	Yes	No	No	No
New Hampshire	Yes	No	Yes	No	No
New Jersey	Yes	No	Yes	No	Yes
New Mexico	Yes	Yes	No	Yes	No
New York	No	No	No	Yes	No
North Carolina	Yes	No	Yes	Yes	No
North Dakota	Yes	No	Yes	Yes	Yes
Ohio	No	No	No	No	No
Oklahoma	Yes	No	No	No	No
Oregon	No	No	No	Yes	Yes
Pennsylvania	Yes	No	No	Yes	No
Rhode Island	Yes	Yes	Yes	No	No
South Dakota	Yes	Yes	No	No	No
Tennessee	Yes	No	No	No	No
Texas	Yes	Yes	Yes	Yes	No
Utah	Yes	Yes	Yes	Yes	No
Vermont	Yes	No	Yes	Yes	Yes
Virginia	Yes	Yes	No	No	Yes
Washington	No	Yes	No	No	Yes
West Virginia	Yes	Yes	Yes	Yes	Yes
Wisconsin	Yes	No	No	No	No
Wyoming	Yes	Yes	No	No	No
Total states with activities	34	25	21	18	12

*For purposes of this report, the District of Columbia is counted as a state.

*Tobacco Use – Continued**References*

1. CDC. State tobacco-use prevention and control plans. MMWR 1990;39:133–6.
2. American Cancer Society. Smoke fighting: a smoking control movement building guide. Washington, DC: Advocacy Institute, 1987.
3. Association of State and Territorial Health Officials/National Cancer Institute. Guide to public health practice: state health agency tobacco prevention and control plans. McLean, Virginia: Association of State and Territorial Health Officials, 1989.
4. Silver J. Network development. In: Proceedings of the ASTHO Conference on the Public Health Practice of Tobacco Prevention and Control. Rockville, Maryland: US Department of Health and Human Services, Public Health Service, CDC, 1990.
5. National Heart, Lung, and Blood Institute. With every beat of your heart. Bethesda, Maryland: US Department of Health and Human Services, Public Health Service, National Institutes of Health, 1989; DHHS publication no. (NIH)89-2641.

*Notices to Readers***Availability of Primaquine Phosphate from CDC**

Primaquine phosphate is an antimalarial drug that decreases the risk of malaria relapses by acting against the liver stages of *Plasmodium vivax* and *P. ovale* infections. No alternative antirelapse drugs are available in the United States.

CDC was recently notified by the sole U.S. manufacturer of primaquine (Winthrop Pharmaceuticals, New York, New York) that production of this drug has been temporarily discontinued because its chemical precursor is currently unavailable. Primaquine is expected to be commercially available again in mid-1991. In the meantime, CDC has acquired a supply of the drug in sufficient quantity for treatment of nonmilitary cases of *P. vivax* and *P. ovale* infections. Until primaquine is again commercially available, CDC will provide this drug free to licensed U.S. physicians who wish to prescribe it for patients who have parasitologically-confirmed *P. vivax* or *P. ovale* infections and who reside in the United States or its territories. Patients with *P. falciparum* or *P. malariae* infections do not require primaquine therapy. Because of the limited supply, CDC is unable to provide primaquine for persons who wish to use it as part of a chemoprophylactic regimen.

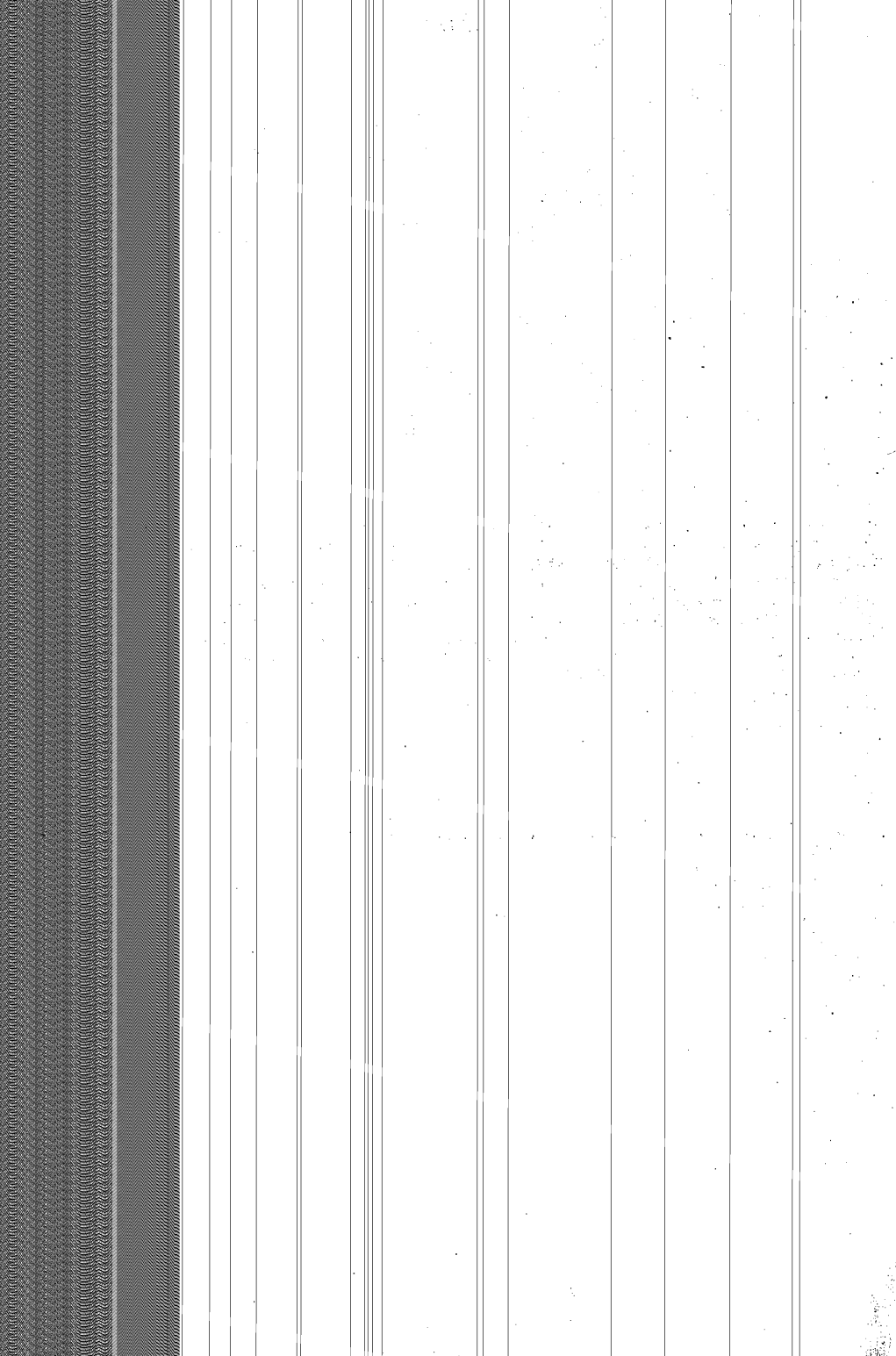
Physicians who wish to receive therapeutic courses of primaquine for their patients should call the CDC Drug Service at (404) 639-3670, Monday through Friday, between 8:00 a.m. and 4:30 p.m. Eastern time. Physicians will be requested to provide the following information about their patients: clinical and parasitologic data, places and dates of travel to malarious areas, and use of malaria chemoprophylaxis.

Epidemiology in Action Course

CDC and Emory University will cosponsor a course designed for practicing state and local health department professionals. This course, "Epidemiology in Action," will be held at CDC November 5–16, 1990. It emphasizes the practical application of epidemiology to public health problems and will consist of lectures, workshops,

Epidemiology in Action – Continued

classroom exercises (including actual epidemiologic problems), roundtable discussions, and an on-site community survey. Applications must be received by August 24. For further information and/or an application form, contact Department PSB, Division of Public Health, Emory University, 1599 Clifton Road, N.E., Atlanta, GA 30329; telephone (404) 727-0199; FAX (404) 727-8744; TELEX (810) 751-8512.



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

The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday. The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: Editor, *Morbidity and Mortality Weekly Report*, Centers for Disease Control, Atlanta, Georgia 30333; telephone (404) 332-4555.

Director, Centers for Disease Control
William L. Roper, M.D., M.P.H.
Director, Epidemiology Program Office
Stephen B. Thacker, M.D., M.Sc.

Editor, *MMWR* Series
Richard A. Goodman, M.D., M.P.H.
Managing Editor
Karen L. Foster, M.A.

☆U.S. Government Printing Office: 1990-731-103/22010 Region IV

DEPARTMENT OF
HEALTH & HUMAN SERVICES
Public Health Service
Centers for Disease Control
Atlanta, GA 30333

FIRST-CLASS MAIL
POSTAGE & FEES PAID
PHS/CDC
Permit No. G-284

Official Business
Penalty for Private Use \$300

Z4 *HCRU9FISD22 8721
DANIEL B FISHBEIN, MD
CID, VRL
7-B44 G13

X