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Epidemiologic Notes and Reports

Multi-Drug-Resistant Tuberculosis — North Carolina

A 32-year-old male presented at a hospital emergency room on March 31, 1984, complaining of nausea and vomiting, abdominal pain, headache, and neck stiffness. He was admitted and a tentative diagnosis of viral encephalitis was made. His condition rapidly deteriorated; he became comatose and was transferred to another hospital 4 days later for further evaluation and treatment. A lumbar puncture on April 3 revealed bright yellow cerebrospinal fluid (CSF) with 3.8 g/dl protein, 37 mg/dl glucose, 118 rbc's, and 311 wbc's (100% mononuclear cells). A computerized tomography scan of the head showed marked hydrocephalus. The chest radiograph revealed bilateral lower lobe infiltrates and a mass in the left hilar area. The patient's condition worsened, and he died on April 20, 1984.

Autopsy findings revealed basilar meningitis, extensive acute encephalomalacia of the basal ganglia and brain stem, obstructive hydrocephalus, and left hilar lymph node caseation and necrosis. Staining of material from the brain demonstrated acid-fast organisms in isolated necrotic foci. On July 18, 1984, the North Carolina State Laboratory reported identification of *Mycobacterium tuberculosis* from a brain-tissue-culture specimen taken at autopsy. On August 15, 1984, the laboratory reported identification of *M. tuberculosis* from a culture of the CSF obtained on April 3. Drug-susceptibility studies showed the organism to be resistant to isoniazid (INH), rifampin (RIF), ethambutol (EMB), and streptomycin (SM).

The patient received no anti-tuberculosis drugs while hospitalized. Both the patient and his family gave no history of treatment for tuberculosis. A review of the tuberculosis records systems in North Carolina and South Carolina also revealed no history of prior treatment for tuberculosis.

Subsequent investigation revealed that the patient had resided in North Carolina for approximately 1 year immediately preceding his death. During this time, he was in contact with three other persons with infectious, drug-resistant tuberculosis. Two of these persons had *M. tuberculosis* isolates with the same pattern of quadruple drug resistance. Table 1 shows the dates of the patients' first TB diagnosis in chronological order. Three of the four patients died from tuberculosis. Patient 4 had the fatal meningitis case reported here.

Tuberculosis — Continued

The four patients knew one another and had interacted closely. Patients 1 and 2 were living together in May 1978 when Patient 1 was first diagnosed with tuberculosis. Patient 3, until his death, was the proprietor of an entertainment establishment often frequented by the other three. From about June 1983 until April 1984, Patients 1 and 4 lived in adjoining apartments in a small, four-unit converted house. Both had a history of alcohol abuse.

The available information suggests that Patient 1 transmitted quadruple-drug-resistant organisms to Patient 4 between June 1983 and February 1984. Progression from infection to disease was rapid and resulted in fatal tuberculous meningitis in less than 1 year.

After the initial diagnoses, the first three cases were difficult to manage because of the patients' alcohol abuse and the drug-resistant nature of the infections. Cumulatively, Patients 1, 2, and 3 were admitted 14 times to state tuberculosis hospitals. They continued to have positive smears and cultures and were lost to followup for long periods.

The treatment of Patients 1 and 3 was further complicated by delayed, conflicting, or possibly overlooked laboratory reports. Multiple medical providers and laboratories were involved in their care, and a review of records suggests that information may not have been uniformly shared.

Ten contacts of Patient 1 were evaluated with a Mantoux tuberculin skin test during 1978. Patient 2 was tne only person with a significant skin-test reaction (>10 mm) found among these contacts, and she was not put on tuberculosis preventive therapy. Within the following year, she developed disease, which subsequently was found to be resistant to INH, EMB, and SM, suggesting that she was infected by Patient 1 when he had not yet acquired resistance to RIF. Among her five contacts, one reactor was found and was started on INH preventive therapy.

During October 1980, 13 close contacts of Patient 3 were tested, and six, including his wife and two children, had a significant reaction. Four of the six were started on INH preventive therapy. Fifty-four contacts who worked with Patient 3 were also tuberculin tested, and seven of these had significant reactions.

From October 1984 through December 1985, there was extensive contact investigation around the four cases. Over 415 contacts were evaluated in North Carolina, South Carolina, and the District of Columbia. Fifty-six contacts had significant skin-test reactions. Twenty-nine of these reactors were started on INH preventive therapy. Although no new cases of tuberculosis (disease) were found as a result of contact investigations, a brother of Patient 2, living in Washington, D.C., was diagnosed with pulmonary tuberculosis in June 1984. Susceptibility tests showed the brother's organisms to be resistant to INH and SM.

TABLE 1. Clinical/laboratory data on four tuberculosis patients — North Carolina

Patient no.	Sex	Date of first TB diagnosis	Age at diagnosis	Date of death	Date of last positive culture*	Specimen type	Organism resistant to†
1	M	5-78	49	5-2-84	4-30-84	Sputum	INH,RIF,EMB,SM
2	F	7-79	47	Alive	8-7-84	Sputum	INH,EMB,SM§
3	M	9-80	34	4-5-85	11-26-83	Sputum	INH,RIF,EMB,SM
4	M	4-84	32	4-20-84	4-3-84	CSF	INH,RIF,EMB,SM

*Date last specimen was obtained on which drug susceptibility tests were done.

†Organisms from three patients were 100% resistant to the drugs listed. Those from Patient 2 were 100% resistant only to INH.

§Isolate was susceptible to RIF.

Tuberculosis — Continued

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Editorial Note: Transmission of drug-resistant tuberculosis in families and households (*1*) and in a shelter for the homeless (*2*) has been previously documented, and community outbreaks of drug-resistant tuberculosis have been reported in Mississippi (*3*) and in California, Montana, Nevada, and Utah (*4*). Although phage typing was not done in this investigation, the epidemiologic evidence and similar patterns of drug resistance suggest that Patient 1 (who ultimately died) infected Patients 2 and 4 with multi-drug-resistant tuberculosis and may have infected Patient 3; two additional deaths resulted. Noncompliance with therapy recommendations as well as poor communication among health care providers in various institutional settings contributed to treatment failures in Patients 1, 2, and 3.

This report calls attention to the problems that drug-resistant disease continues to pose to contemporary tuberculosis control programs. To address these problems, tuberculosis control programs should emphasize the following when monitoring *all* tuberculosis patients:

- continuity and completion of therapy, including direct observation of therapy for patients who are unwilling or unable to take an unsupervised course of therapy;
- effective communication among all health care providers, both within and outside of the health department;
- careful surveillance of mycobacteriology laboratory reports; and
- thorough contact investigations surrounding each case of tuberculosis.

One of the purposes of most tuberculosis contact investigations is to identify persons infected with tuberculosis so that they can be evaluated for preventive therapy. The current standard preventive therapy regimen is INH for 6 to 12 months. In the case of INH-resistant tuberculosis, preventive therapy with 1 year of RIF or INH is considered an acceptable option since INH may be effective *in vivo* even in the case of laboratory failure (*5*). However, the contacts in this episode may have been infected with organisms resistant to both INH and RIF, in which case INH and/or RIF preventive therapy would probably not have been effective in preventing disease. These contacts then are at risk of developing drug-resistant disease in the future and of transmitting drug-resistant organisms to others. Health departments should establish special surveillance for such contacts. Certainly, the further spread of these quadruply resistant organisms should be prevented.

This report also points out the need for a readily available, rapid diagnostic test for tuberculosis. There was a 4-month hiatus between culturing the CSF from Patient 4 and the report of drug-resistant *M. tuberculosis*. Faster laboratory techniques for culturing and obtaining drug susceptibility results might have enabled providers to diagnose tuberculosis and institute appropriate therapy early enough to prevent this patient's death.

References

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Perspectives in Disease Prevention and Health Promotion

Drinking and Driving and Binge Drinking in Selected States, 1982 and 1985 — The Behavioral Risk Factor Surveys

During the period 1981-1983, behavioral risk factor surveys were conducted in 28 states and the District of Columbia (*1*). The surveys were designed to gather data on the prevalence of specific behavioral risk factors in the adult population (> 18 years of age) in each state. Since 1984, several states have been collecting risk factor data on a monthly basis as part of the Behavioral Risk Factor Surveillance System. The following analysis was based on the 12 states ("states" includes the District of Columbia) that collected data on drinking and driving and/or binge drinking for 1982 and 1985.

For the purposes of this analysis, the prevalences of drinking and driving and of binge drinking were based on the percentage of persons selecting the answer "One or more times" when asked the following questions:

- For drinking and driving: "During the past month, how many times have you driven when you've had *perhaps* too much to drink?"
- For binge drinking: "Considering all types of alcoholic beverages, that is beer, wine, liquor, as drinks, how many times during the past month did you have five or more drinks on an occasion?"

Ten of the 12 states that gathered data on binge drinking in 1982 and 1985 also gathered data on drinking and driving. Table 2 shows the prevalence of drinking and driving, by age and sex, in 1982 and 1985 for these 10 states. Table 3 shows the prevalence of binge drinking by age and sex in 1982 and 1985 for all 12 states. The Wilcoxon Signed Rank Test for paired measurements* (*2*) was used to evaluate observed changes in the prevalence of drinking and driving and binge drinking in this group of states.

All states reporting drinking and driving data showed a decrease in that behavior among males 35 to 54 years of age between 1982 and 1985 (decrease = 10/10). However, the decrease was not consistent among either males 18 to 34 years of age (5/10) or males ≥55 years of age (5/10). For both years, women had lower prevalences than men, but the proportion of states showing a decrease in drinking and driving among women was not statistically significant for any of the three age groups.

Between 1982 and 1985, a significant proportion ($p = < .05$) of the 12 states reporting binge drinking data showed a decrease in the prevalence of binge drinking among men 18 to 34 years of age (10/12) and men 35 to 54 years of age (10/12). A majority of states showed a decrease in binge drinking among men ≥55 years of age (8/12), but this change was not statistically significant. A majority of states also showed a decrease in binge drinking for

*This non-parametric test was used to assess the likelihood that the observed proportion of states showing a decrease in the prevalence of self-reported drinking and driving and of binge drinking between 1982 and 1985 could have happened by chance alone.

Drinking and Driving — Continued

women in each age group, but this decrease was statistically significant ($p = < .01$) only among women 18 to 34 years of age.

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TABLE 2. Drinking and driving prevalences (percentages), by sex, age, and state — 1982 and 1985 Behavioral Risk Factor Surveys

Age:	18-34			35-54			55+		
State	1982	1985	Change	1982	1985	Change	1982	1985	Change
				Males					
Arizona	11.3	18.6	7.3	5.1	1.4	-3.7	0.6	1.7	1.1
California	15.6	8.4	-7.2	8.6	4.8	-3.9	1.3	0.0	-1.3
District of Columbia	2.6	4.1	1.5	4.8	3.4	-1.4	1.5	0.0	-1.5
Florida	12.9	8.3	-4.7	5.6	3.9	-1.7	1.2	1.2	0.0
Georgia	8.8	12.4	3.6	9.6	4.8	-4.8	1.5	0.0	-1.5
Indiana	13.1	11.9	-1.2	5.9	3.6	-2.3	0.0	0.8	0.8
Kentucky	5.1	5.0	-0.1	2.6	0.8	-1.8	1.1	0.9	-0.1
North Carolina	10.5	12.3	1.8	6.0	2.4	-3.6	0.0	0.7	0.7
Tennessee	6.4	3.7	-2.7	5.8	3.0	-2.8	2.2	0.0	-2.2
West Virginia	7.7	12.2	4.5	1.5	1.1	-0.4	0.0	0.3	0.3
	N=10, T*=25, N.S.			N=10, T*=0, p< 0.01			N=9, T*=14, N.S.		
				Females					
Arizona	4.9	4.6	-0.3	1.1	1.9	0.8	0.3	0.0	-0.3
California	6.1	2.5	-3.5	3.4	1.1	-2.3	0.0	0.0	0.0
District of Columbia	1.2	3.1	1.9	1.2	1.0	-0.2	0.0	2.5	2.5
Florida	0.0	6.8	6.8	2.7	0.3	-2.3	0.0	0.0	0.0
Georgia	7.2	0.9	-6.4	1.9	2.3	0.4	0.0	0.0	0.0
Indiana	3.5	2.9	-0.6	2.6	0.9	-1.7	0.0	0.0	0.0
Kentucky	4.1	1.9	-2.2	0.0	0.3	0.3	0.0	0.0	0.0
North Carolina	10.3	2.7	-7.6	0.0	0.7	0.7	0.0	0.0	0.0
Tennessee	1.5	2.4	0.9	0.0	0.3	0.3	0.0	0.0	0.0
West Virginia	2.2	0.8	-1.4	1.5	0.3	-1.2	0.0	0.0	0.0
	N=10, T*=17, N.S.			N=10, T*=20, N.S.			N=2, T*=undefined, N.S.		

*Signed-rank T statistic.

Drinking and Driving — Continued

Editorial Note: No comparison data are available to indicate whether the downward changes in self-reported drinking and driving and binge drinking prevalences for these selected states reflect similar changes at the national level. More of the reporting states showed a decrease in the prevalence of binge drinking than in the prevalence of drinking and driving. For men and women of all ages, the prevalence of binge drinking decreased in a majority of the states. By contrast, only for men 35 to 54 years of age and women 18 to 34 years of age did a significant majority of states show a decrease in the prevalence of drinking and driving.

Caution must be exercised in interpreting changes based on the self-reported behaviors from these states. The apparent decreases in binge drinking and in drinking and driving may reflect real decreases in the prevalence of these behaviors in the populations surveyed. However, these changes could also be artifactual, due either to seasonal bias in the surveys done

TABLE 3. Binge drinking prevalences (percentages), by sex, age, and state — 1982 and 1985 Behavioral Risk Factor Surveys

Age:	18-34			35-54			55+		
State	1982	1985	Change	1982	1985	Change	1982	1985	Change
				Males					
Arizona	43.7	42.5	-1.2	28.3	20.4	-8.0	13.3	10.7	-2.6
California	48.6	35.4	-13.2	31.4	23.8	-7.6	13.9	9.9	-4.0
District of Columbia	30.0	23.4	-6.6	27.7	26.8	-0.9	9.1	7.4	-1.7
Florida	51.9	38.8	-13.1	27.2	29.2	1.9	21.7	12.1	-9.5
Georgia	32.4	41.2	8.8	25.8	21.3	-4.4	6.4	9.2	2.8
Indiana	51.9	47.9	-4.0	32.4	23.5	-9.0	21.3	11.6	-9.7
Kentucky	36.9	14.9	-22.0	18.2	14.0	-4.3	3.8	7.6	3.9
Montana	65.9	46.7	-19.3	35.5	28.6	-6.9	19.6	17.5	-2.1
North Carolina	35.8	34.3	-1.5	24.9	13.2	-11.7	6.1	7.6	1.4
Ohio	49.3	48.6	-0.6	27.4	24.8	-2.6	8.4	12.3	3.9
Tennessee	34.3	16.4	-18.0	21.5	8.0	-13.5	6.1	3.5	-2.5
West Virginia	31.1	36.9	5.8	15.4	17.5	2.2	9.9	4.4	-5.5
	N=12, T*=12, P < 0.05			N=12, T*=5, p< 0.01			N=12, T*=22, N.S.		
				Females					
Arizona	21.1	18.0	-3.1	8.3	9.1	0.8	4.1	3.7	-0.4
California	19.3	13.7	-5.7	13.3	8.8	-4.6	3.1	3.9	0.8
District of Columbia	14.3	17.0	2.7	12.1	11.2	-0.9	5.1	1.9	-3.2
Florida	19.7	16.0	-3.7	14.1	8.3	-5.8	4.2	4.0	-0.2
Georgia	16.6	5.7	-11.0	10.1	6.2	-3.9	0.9	0.0	-0.9
Indiana	13.7	14.9	1.2	8.2	8.1	-0.1	2.6	1.0	-1.5
Kentucky	15.0	11.1	-3.9	5.6	2.8	-2.8	0.0	0.0	0.0
Montana	25.2	19.6	-5.6	9.6	8.5	-1.1	3.2	3.0	-0.3
North Carolina	17.9	9.0	-8.9	1.5	2.8	1.3	4.0	0.9	-3.2
Ohio	20.8	19.2	-1.6	4.1	3.6	-0.5	1.9	2.2	0.3
Tennessee	7.1	5.0	-2.1	2.0	1.6	-0.4	0.3	0.4	0.1
West Virginia	14.7	11.6	-3.1	3.7	4.6	0.9	1.4	1.7	0.2
	N=12, T*=5, P < 0.01			N=12, T*=17.5, N.S.			N=11, T*=15, N.S.		

*Signed-rank T statistic.

Drinking and Driving — Continued

in 1982 or to differences between the 1982 and 1985 surveys caused by non-response or under-reporting.

The 1982 surveys were conducted during a 1- to 6-week interviewing period. In contrast, the 1985 data were gathered during a 7-day period each month and then aggregated at year's end to eliminate the potential effect of seasonality on health risk behaviors. However, because the 1982 surveys were conducted across all seasons of the year, seasonality is an unlikely explanation for the changes observed between these two sets of surveys.

Non-response and under-reporting could have affected these results. Analysis reveals lower response rates for the 1985 surveys than for the 1982 surveys in these states. It is possible that non-responders are more likely than responders to engage in these behaviors. In addition, the apparent decrease in self-reported drinking and driving or binge drinking may have resulted from greater under-reporting of these socially undesirable behaviors in the 1985 surveys. If this were the case, however, one might expect to see relatively greater decreases in drinking and driving, which is more socially undesirable than binge drinking and has been the focus of universal public interest.

If an actual decrease in these behaviors has occurred, it could be due, in part, to legislative efforts within the states to raise the drinking age as well as to increased enforcement of laws against driving while under the influence of alcohol. It could also be a result of limiting the number of free drinks establishments can provide to customers during "happy hour" or of changes in the social desirability of these behaviors brought on by the activities of groups such as Mothers Against Drunk Driving. The fact that a greater proportion of states has shown a decrease in the prevalence of binge drinking compared with drinking and driving suggests that persons still reporting the latter behavior may be more resistant to change.

Young males (18 to 34 years of age) continue to show the highest prevalence of both drinking and driving and binge drinking. Between 1982 and 1985, neither binge drinking nor drinking and driving decreased significantly for 18- to 34-year-old males. Therefore, to prevent alcohol-related injuries and death, young males should remain a priority target group for public health intervention.

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

Disease	51st Week Ending			Cumulative, 51st Week Ending		
	Dec. 20, 1986	Dec., 21, 1985	Median 1981-1985	Dec. 20, 1986	Dec. 21, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	373	175	N	12,777	7,828	N
Aseptic meningitis	150	159	132	10,421	10,158	9,524
Encephalitis: Primary (arthropod-borne & unspec.)	22	21	22	1,192	1,285	1,500
Post-infectious	2	1	1	97	115	95
Gonorrhea: Civilian	16,443	16,281	16,281	870,147	870,180	883,944
Military	312	339	380	16,641	20,144	23,534
Hepatitis: Type A	523	472	416	22,300	22,515	22,515
Type B	483	564	524	25,022	25,773	23,654
Non A, Non B	44	76	N	3,370	3,986	N
Unspecified	71	105	151	4,274	5,641	7,102
Legionellosis	14	18	N	792	752	N
Leprosy	7	4	3	253	350	237
Malaria	15	20	9	1,064	1,008	1,008
Measles: Total*	84	9	9	6,216	2,735	2,557
Indigenous	83	9	N	5,913	2,299	N
Imported	1	-	N	297	436	N
Meningococcal infections: Total	49	49	50	2,384	2,357	2,641
Civilian	49	49	50	2,382	2,350	2,625
Military	-	-	-	2	7	13
Mumps	220	50	58	5,568	2,893	3,295
Pertussis	28	72	58	4,071	3,478	2,218
Rubella (German measles)	2	8	12	485	613	947
Syphilis (Primary & Secondary): Civilian	539	725	579	26,618	26,401	30,435
Military	-	3	3	160	156	360
Toxic Shock syndrome	6	5	N	339	358	N
Tuberculosis	534	553	494	21,610	21,147	23,095
Tularemia	5	2	3	165	175	278
Typhoid fever	5	12	10	311	381	393
Typhus fever, tick-borne (RMSF)	2	2	2	746	687	960
Rabies, animal	47	85	68	5,192	5,279	5,788

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1986		Cum. 1986
Anthrax	-	Leptospirosis (Hawaii 1)	40
Botulism: Foodborne	18	Plague (N.Mex 1)	10
Infant (Calif. 2)	69	Poliomyelitis, Paralytic (Fla. 1)	2
Other	1	Psittacosis (La. 1, Wash. 1)	93
Brucellosis (Mo. 2, Fla. 1, N.Mex. 1, Utah 1, Calif. 1)	84	Rabies, human	-
Cholera	17	Tetanus	61
Congenital rubella syndrome	11	Trichinosis (N.J. 1)	32
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	48
Diphtheria	-		

*One of the 84 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending December 20, 1986 and December 21, 1985 (51st Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	12,777	150	1,192	97	870,147	870,180	523	483	44	71	14	253
NEW ENGLAND	492	5	32	3	23,502	22,150	9	35	2	6	1	8
Maine	20	-	4	-	825	1,127	-	6	-	-	-	-
N H	13	-	2	-	573	568	-	5	-	-	-	-
Vt	5	2	4	2	263	333	-	1	-	-	-	-
Mass	272	2	6	-	8,447	9,284	9	17	2	5	1	8
R I	34	-	-	-	1,800	1,834	-	1	-	-	-	-
Conn	148	1	16	1	11,594	9,004	-	5	-	1	-	-
MID ATLANTIC	4,722	1	107	10	154,213	126,988	24	10	-	13	-	20
Upstate N Y	492	-	36	6	18,440	17,769	24	9	-	2	-	1
N Y City	3,182	1	20	1	89,440	61,945	-	1	-	11	-	18
N J	745	-	10	-	19,915	19,362	-	-	-	-	-	-
Pa	303	-	41	3	26,418	27,912	-	-	-	-	-	1
E N CENTRAL	765	35	365	11	112,609	113,211	31	52	2	2	5	5
Ohio	154	11	138	3	29,827	30,979	13	27	2	-	4	-
Ind	67	U	82	3	12,131	12,504	U	U	U	U	U	-
Ill	363	-	50	4	25,858	25,910	4	5	-	-	-	4
Mich	139	24	61	1	37,138	32,917	14	20	-	2	1	1
Wis	42	-	34	-	7,403	10,901	-	-	-	-	-	1
W N CENTRAL	233	1	90	9	37,358	40,671	9	11	3	2	-	4
Minn	88	-	40	-	5,359	5,936	6	7	1	-	-	2
Iowa	20	1	27	-	3,813	4,260	-	2	1	-	-	-
Mo	73	-	3	-	18,421	19,797	-	2	1	-	-	-
N Dak	3	-	4	-	304	274	-	-	-	-	-	-
S Dak	2	-	11	-	767	779	1	-	-	-	-	-
Nebr	11	-	2	1	2,793	3,486	1	-	-	-	-	-
Kans	36	-	3	8	5,901	6,139	1	-	-	2	-	2
S ATLANTIC	1,847	41	153	39	226,059	227,786	36	123	4	6	6	4
Del	23	1	6	-	3,688	4,381	-	-	-	-	-	-
Md	180	2	35	1	26,497	29,033	5	16	-	1	2	-
D C	239	-	1	1	16,785	15,522	-	2	-	-	-	-
Va	152	7	43	1	18,618	18,901	3	10	2	1	-	1
W Va	8	1	46	-	2,159	2,541	3	4	-	-	-	-
N C	79	3	18	2	35,464	36,145	1	19	-	2	2	-
S C	50	1	-	-	19,016	21,208	3	16	-	1	1	-
Ga	285	4	-	1	37,467	43,944	3	15	-	-	-	-
Fla	831	22	4	33	66,365	56,111	18	41	2	1	1	3
E S CENTRAL	157	11	68	4	69,072	75,312	3	30	1	-	1	1
Ky	28	1	32	1	7,668	8,654	-	5	-	-	-	-
Tenn	73	2	8	1	26,033	29,050	-	14	1	-	-	-
Ala	29	7	27	2	20,283	22,506	1	9	-	-	-	1
Miss	27	1	1	-	15,088	15,102	2	2	-	-	1	-
W S CENTRAL	1,173	40	187	8	99,895	109,637	39	48	4	14	-	25
Ark	29	3	-	4	9,487	10,218	1	1	1	-	-	1
La	153	1	19	-	17,401	20,507	3	5	-	-	-	1
Okla	41	2	22	-	11,503	12,214	2	5	-	-	-	-
Tex	950	34	146	4	61,504	66,698	33	37	3	14	-	23
MOUNTAIN	341	7	40	1	25,483	27,552	68	47	3	5	1	13
Mont	5	-	1	1	660	785	1	-	-	-	-	-
Idaho	3	-	-	-	858	970	2	5	-	-	1	-
Wyo	4	-	2	-	518	621	-	-	-	-	-	-
Colo	166	5	5	-	6,550	7,972	9	5	-	4	-	3
N Mex	25	-	3	-	2,728	3,074	13	6	-	-	-	-
Ariz	81	2	19	-	8,171	8,473	41	21	2	-	-	7
Utah	20	-	8	-	1,093	1,323	1	4	1	1	-	1
Nev	37	-	2	-	4,905	4,334	1	6	-	-	-	2
PACIFIC	3,047	9	150	12	121,956	126,873	304	127	25	23	-	173
Wash	153	1	15	-	8,694	9,861	108	41	3	8	-	17
Oreg	62	-	-	-	5,316	6,305	32	16	6	-	-	-
Calif	2,766	6	127	12	104,333	105,992	147	66	16	15	-	117
Alaska	13	-	7	-	2,593	3,072	17	4	-	-	-	-
Hawaii	53	2	1	-	1,272	1,643	-	-	-	-	-	38
Guam	-	-	-	-	218	192	-	-	-	-	-	1
P R	115	1	5	1	2,343	3,045	-	4	-	1	-	7
V I	4	U	-	-	259	391	U	U	U	U	U	-
Pac Trust Terr	-	-	-	-	480	766	-	-	-	2	-	63
Amer Samoa	-	-	-	-	59	-	-	-	-	-	-	3

N Not notifiable U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 20, 1986 and December 21, 1985 (51st Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	1,064	83	5,913	1	297	2,735	2,384	220	5,568	28	4,071	3,478	2	485	613
NEW ENGLAND	65	-	88	-	16	126	168	2	70	4	179	214	-	9	14
Maine	2	-	12	-	1	1	29	-	-	-	2	9	-	-	-
N.H.	4	-	43	-	-	-	6	-	14	2	84	113	-	1	3
Vt	2	-	-	-	-	-	19	1	5	-	3	4	-	1	-
Mass.	33	-	24	-	13	118	50	1	15	1	57	54	-	4	7
R.I.	8	-	2	-	-	-	23	-	13	1	7	22	-	2	-
Conn.	16	-	7	-	2	7	41	-	23	-	26	12	-	1	4
MID. ATLANTIC	145	70	1,940	-	37	232	372	2	215	7	221	267	-	37	234
Upstate N.Y.	51	-	77	-	24	85	135	-	73	6	140	130	-	27	21
N.Y. City	31	70	931	-	6	79	71	-	29	-	10	29	-	5	188
N.J.	37	-	906	-	5	28	30	1	53	-	20	12	-	5	11
Pa.	26	-	26	-	2	40	136	1	60	1	51	96	-	-	14
E.N. CENTRAL	61	-	1,123	-	28	582	366	58	3,555	1	386	834	-	50	38
Ohio	19	-	-	-	10	60	143	7	143	-	167	120	-	1	-
Ind.	2	U	27	U	11	57	39	U	90	U	36	201	U	-	1
Ill.	16	-	705	-	4	346	81	37	2,597	1	38	86	-	39	20
Mich.	20	-	107	-	-	60	78	12	442	-	36	51	-	8	16
Wis.	4	-	284	-	3	59	24	2	283	-	106	376	-	2	1
W.N. CENTRAL	32	-	324	1	18	13	113	38	220	-	1,408	267	-	14	19
Minn.	10	-	45	1†	5	6	24	24	44	-	48	135	-	1	2
Iowa	1	-	133	-	1	-	11	11	84	-	19	34	-	1	1
Mo.	12	-	26	-	6	4	41	1	26	-	24	35	-	1	7
N. Dak.	-	-	25	-	1	2	1	-	4	-	5	10	-	1	2
S. Dak.	2	-	-	-	-	-	5	-	1	-	14	11	-	-	-
Nebr.	4	-	1	-	-	-	12	-	2	-	10	11	-	-	-
Kans.	3	-	94	-	5	1	19	2	59	-	1,288	31	-	10	7
S. ATLANTIC	128	-	790	-	57	342	430	8	258	8	781	566	-	12	56
Del.	1	-	1	-	-	-	8	-	1	-	227	2	-	-	2
Md.	14	-	26	-	9	115	49	1	31	2	167	324	-	1	6
D.C.	5	-	-	-	2	31	6	-	1	-	-	-	-	-	-
Va.	34	-	36	-	24	28	76	1	46	1	56	21	-	-	2
W. Va.	4	-	2	-	-	33	4	-	49	-	26	5	-	-	9
N.C.	7	-	3	-	1	9	67	1	29	1	86	39	-	-	1
S.C.	7	-	274	-	-	3	46	3	19	-	18	2	-	-	3
Ga.	14	-	79	-	14	8	61	-	28	2	135	102	-	-	3
Fla.	42	-	369	-	7	115	113	2	54	2	66	71	-	11	30
E.S. CENTRAL	21	-	61	-	9	7	123	83	317	-	47	74	-	4	3
Ky.	6	-	-	-	6	5	30	-	6	-	5	9	-	4	3
Tenn.	1	-	55	-	1	1	37	83	306	-	16	28	-	-	-
Ala.	10	-	1	-	1	-	41	-	4	-	25	30	-	-	-
Miss.	4	-	5	-	1	1	15	-	1	-	1	7	-	-	-
W.S. CENTRAL	106	-	680	-	38	452	222	11	290	1	254	558	-	73	42
Ark.	1	-	276	-	2	-	30	-	61	-	20	17	-	1	1
La.	18	-	4	-	-	42	27	2	5	1	16	18	-	-	-
Okla.	12	-	37	-	2	1	33	N	N	-	129	172	-	-	2
Tex.	75	-	363	-	34	409	132	9	224	-	89	351	-	72	39
MOUNTAIN	41	-	303	-	29	541	112	5	263	1	282	241	-	24	6
Mont.	1	-	-	-	8	137	11	-	6	-	20	10	-	2	-
Idaho	1	-	1	-	-	137	4	-	9	-	51	28	-	-	2
Wyo.	-	-	-	-	-	5	2	-	-	-	4	1	-	1	-
Colo.	12	-	2	-	8	15	21	-	17	-	66	94	-	1	-
N. Mex.	5	-	33	-	7	6	13	N	N	1	29	14	-	-	2
Ariz.	15	-	252	-	6	241	24	5	205	-	65	41	-	2	1
Utah	4	-	13	-	-	-	10	-	15	-	43	53	-	15	-
Nev.	3	-	2	-	-	-	27	-	11	-	4	-	-	3	1
PACIFIC	465	13	604	-	65	440	478	13	380	6	513	457	2	262	201
Wash.	32	-	148	-	28	142	65	3	24	-	154	90	-	17	14
Oreg.	19	1	7	-	4	5	38	N	N	-	16	50	-	4	2
Calif.	413	12	422	-	31	269	349	10	324	5	307	270	2	235	136
Alaska	-	-	-	-	-	-	14	-	8	-	5	30	-	-	1
Hawaii	1	-	27	-	2	24	13	-	24	1	34	17	-	6	48
Guam	2	-	4	-	1	11	1	-	4	-	-	-	-	4	3
P.R.	4	-	44	-	-	67	4	-	34	-	19	16	-	62	27
V.I.	-	U	-	U	-	10	-	U	17	U	-	-	U	-	-
Pac. Trust Terr.	-	-	-	-	-	-	1	-	11	-	-	-	-	4	-
Amer. Samoa	-	-	2	-	-	-	-	-	5	-	-	-	-	1	-

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

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

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 20, 1986 and December 21, 1985 (51st Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tularemia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	26,618	26,401	6	21,610	21,147	165	311	746+2	5,192
NEW ENGLAND	481	572	1	673	697	1	16	13	8
Maine	19	17	-	34	47	-	-	-	-
N H	13	40	-	23	23	-	-	2	1
Vt	9	7	-	17	8	-	-	-	2
Mass	263	281	-	378	405	1	13	4	-
R I	19	17	1	49	52	-	-	3	3
Conn	158	210	-	172	162	-	3	4	2
MID ATLANTIC	3,812	3,588	-	4,210	3,688	2	24	41+1	662
Upstate N Y	177	265	-	612	644	-	4	20	83
N Y City	2,184	2,159	-	2,191	1,811	-	11	6	-
N J	658	704	-	715	479	2	8	2	17
Pa	793	460	-	692	754	-	1	13	562
E N CENTRAL	823	948	-	2,531	2,592	1	23	46	142
Ohio	125	146	-	455	449	-	9	40	16
Ind	108	83	U	269	336	-	2	-	17
Ill	370	414	-	1,100	1,136	-	3	2	44
Mich	179	241	-	599	531	1	6	4	25
Wis	41	64	-	108	140	-	3	-	40
W N CENTRAL	204	231	-	630	612	48	9	52+1	808
Minn	33	45	-	150	123	-	2	1	132
Iowa	8	19	-	46	58	1	-	1	185
Mo	107	129	-	310	298	37	6	28	70
N Dak	5	2	-	10	10	-	-	1	152
S Dak	9	6	-	29	31	3	-	6	178
Nebr	11	8	-	17	18	1	-	5	37
Kans	31	22	-	68	74	6	1	10	54
S ATLANTIC	8,135	7,568	-	4,401	4,481	13	47	333	1,313
Del	60	39	-	47	51	-	1	1	1
Md	462	487	-	306	401	2	16	29	574
D C	293	333	-	160	157	1	4	-	36
Va	324	296	-	377	461	3	10	51	199
W Va	20	26	-	123	107	-	3	10	58
N C	525	676	-	674	622	3	4	129	10
S C	695	793	-	569	525	-	1	71	65
Ga	1,478	1,371	-	741	774	4	-	40	198
Fla	4,278	3,547	-	1,404	1,383	-	8	2	172
E S CENTRAL	1,737	2,023	2	1,914	1,838	16	4	111	360
Ky	68	65	2	439	455	7	-	22	105
Tenn	613	642	-	569	567	7	1	46	138
Ala	514	651	-	586	531	1	1	25	114
Miss	542	665	-	320	285	1	2	18	3
W S CENTRAL	5,062	6,184	2	2,775	2,682	68	34	139	708
Ark	253	315	-	385	333	49	-	16	162
La	896	1,065	-	392	388	1	3	1	22
Okla	150	194	2	251	248	13	2	103	61
Tex	3,763	4,610	-	1,747	1,713	5	29	19	463
MOUNTAIN	614	750	1	533	571	12	16	10	653
Mont	7	6	-	28	49	1	1	4	212
Idaho	16	7	-	25	25	-	-	2	9
Wyo	4	14	-	-	7	1	-	1	278
Colo	136	213	1	64	91	3	1	3	29
N Mex	68	126	-	102	89	2	1	-	6
Ariz	251	312	-	242	250	-	9	-	101
Utah	19	12	-	31	21	4	3	-	7
Nev	113	60	-	41	39	1	1	-	11
PACIFIC	5,750	4,537	-	3,943	3,986	4	138	1	538
Wash	168	111	-	213	211	1	3	-	5
Oreg	121	110	-	122	131	-	-	-	1
Calif	5,415	4,242	-	3,372	3,364	2	128	1	524
Alaska	12	4	-	56	95	1	1	-	8
Hawaii	34	70	-	180	185	-	6	-	-
Guam	1	2	-	35	38	-	1	-	-
P R	849	869	-	340	342	-	5	-	47
V I	1	3	U	1	1	-	-	-	-
Pac Trust Terr	314	128	-	97	75	-	49	-	-
Amer Samoa	1	-	-	5	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending December 20, 1986 (51st Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	727	488	153	51	12	23	43
Boston, Mass.	178	111	37	15	3	12	17
Bridgeport, Conn.	61	41	16	3	1	-	1
Cambridge, Mass.	32	27	3	2	-	-	3
Fall River, Mass.	28	19	8	-	1	-	-
Hartford, Conn.	87	55	20	6	3	3	1
Lowell, Mass.	27	17	8	1	1	-	2
Lynn, Mass.	20	15	4	1	-	-	2
New Bedford, Mass.	29	25	3	1	-	-	-
New Haven, Conn.	61	37	13	7	2	2	2
Providence, R.I.	59	43	10	3	-	3	8
Somerville, Mass.	6	4	-	2	-	-	-
Springfield, Mass.	50	30	12	5	1	2	4
Waterbury, Conn.	34	25	5	3	-	1	3
Worcester, Mass.	55	39	14	2	-	-	-
MID ATLANTIC	2,961	1,980	581	262	71	66	153
Albany, N.Y.	53	40	9	1	3	-	-
Allentown, Pa.	20	20	-	-	-	-	-
Buffalo, N.Y.	90	61	20	4	-	5	6
Camden, N.J.	40	30	8	2	-	-	4
Elizabeth, N.J.	24	16	3	4	1	-	2
Erie, Pa.†	53	38	7	5	2	1	1
Jersey City, N.J.	42	29	6	6	-	1	1
N.Y. City, N.Y.	1,597	1,044	311	171	40	31	79
Newark, N.J.	126	51	36	20	8	10	2
Paterson, N.J.	39	30	5	4	-	-	4
Philadelphia, Pa.	399	265	93	28	9	4	19
Pittsburgh, Pa.†	85	59	21	1	-	4	7
Reading, Pa.	39	37	2	-	-	-	5
Rochester, N.Y.	131	98	18	8	2	5	9
Schenectady, N.Y.	27	15	5	5	1	1	1
Scranton, Pa.†	39	33	5	-	1	-	3
Syracuse, N.Y.	72	55	12	-	2	3	7
Trenton, N.J.	32	19	11	1	1	-	1
Utica, N.Y.	27	23	3	1	-	-	-
Yonkers, N.Y.	26	17	6	1	1	1	2
E.N. CENTRAL	2,357	1,569	498	146	59	85	74
Akron, Ohio	61	42	12	2	1	4	-
Canton, Ohio	34	30	2	2	-	-	6
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	156	103	33	8	1	11	8
Cleveland, Ohio	171	106	43	9	4	9	6
Columbus, Ohio	179	115	43	8	9	4	5
Dayton, Ohio	108	67	28	5	4	4	-
Detroit, Mich.	241	153	50	22	8	8	3
Evansville, Ind.	46	36	7	2	1	-	1
Fort Wayne, Ind.	58	43	9	4	1	1	-
Gary, Ind.	16	8	3	3	1	1	-
Grand Rapids, Mich.	52	40	7	1	3	1	5
Indianapolis, Ind.	194	125	45	14	8	2	4
Madison, Wis.	32	26	5	1	-	-	4
Milwaukee, Wis.	145	92	33	8	3	9	3
Peoria, Ill.	46	31	7	4	2	2	4
Rockford, Ill.	47	35	6	2	1	3	2
South Bend, Ind.	56	44	10	1	1	-	2
Toledo, Ohio	97	72	18	3	1	3	5
Youngstown, Ohio	54	39	12	2	-	1	-
W.N. CENTRAL	848	559	177	64	21	26	48
Des Moines, Iowa	58	42	8	3	2	2	4
Duluth, Minn.	15	11	2	1	-	1	-
Kansas City, Kans.	38	27	7	2	1	1	2
Kansas City, Mo.	115	73	29	7	-	6	8
Lincoln, Nebr.	38	27	7	4	-	-	-
Minneapolis, Minn.	181	120	33	17	9	2	12
Omaha, Nebr.	82	48	18	9	1	6	3
St. Louis, Mo.	182	113	46	14	3	6	10
St. Paul, Minn.	75	50	18	4	1	2	1
Wichita, Kans.	64	48	9	3	4	-	8

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,226	785	254	94	27	66	67
Atlanta, Ga.	158	100	30	14	2	12	4
Baltimore, Md.	172	96	48	13	5	10	10
Charlotte, N.C.	80	51	17	4	1	7	5
Jacksonville, Fla.	119	79	24	7	1	8	11
Miami, Fla.	108	68	25	9	3	3	3
Norfolk, Va.	71	40	12	7	3	9	5
Richmond, Va.	76	46	21	4	2	3	6
Savannah, Ga.	46	28	7	7	3	1	7
St. Petersburg, Fla.	138	115	15	5	1	2	8
Tampa, Fla.	69	44	14	3	3	5	3
Washington, D.C.	165	98	39	19	3	6	5
Wilmington, Del.	24	20	2	2	-	-	-
E.S. CENTRAL	832	550	183	51	16	32	44
Birmingham, Ala.	137	87	29	11	5	5	4
Chattanooga, Tenn.	91	61	15	5	-	10	3
Knoxville, Tenn.	75	51	17	5	2	-	4
Louisville, Ky.	120	82	28	5	1	4	9
Memphis, Tenn.	156	106	31	10	2	7	14
Mobile, Ala.	74	48	21	1	1	3	4
Montgomery, Ala.	34	20	9	4	1	-	-
Nashville, Tenn.	145	95	33	10	4	3	6
W.S. CENTRAL	1,317	822	285	120	40	50	60
Austin, Tex.	77	52	9	7	5	4	7
Baton Rouge, La.	28	18	6	2	2	-	1
Corpus Christi, Tex.	59	40	11	5	1	2	-
Dallas, Tex.	205	116	49	26	4	10	8
El Paso, Tex.	72	51	9	5	2	5	3
Fort Worth, Tex.	95	61	18	6	4	6	5
Houston, Tex.	288	156	80	37	8	7	9
Little Rock, Ark.	54	39	10	2	-	3	5
New Orleans, La.	73	50	15	5	2	1	-
San Antonio, Tex.	176	109	41	14	7	5	8
Shreveport, La.	74	56	14	2	1	1	6
Tulsa, Okla.	116	74	23	9	4	6	8
MOUNTAIN	695	456	140	57	23	19	28
Albuquerque, N.Mex.	98	60	23	13	2	-	4
Colo. Springs, Colo.	34	18	9	1	4	2	7
Denver, Colo.	117	89	17	8	-	3	3
Las Vegas, Nev.	110	73	19	12	4	2	7
Ogden, Utah	23	12	7	-	1	3	1
Phoenix, Ariz.	112	73	17	9	6	7	4
Pueblo, Colo.	32	23	8	-	1	-	-
Salt Lake City, Utah	57	26	21	6	2	2	1
Tucson, Ariz.	112	82	19	8	3	-	1
PACIFIC	1,988	1,337	385	173	39	45	138
Berkeley, Calif.	26	22	2	2	-	-	3
Fresno, Calif.	102	67	24	3	2	6	5
Glendale, Calif.	25	20	3	2	-	-	2
Honolulu, Hawaii	87	52	24	5	1	5	5
Long Beach, Calif.	105	80	17	5	2	1	20
Los Angeles, Calif.	483	305	104	52	11	5	14
Oakland, Calif.	80	55	19	2	2	2	2
Pasadena, Calif.	30	20	5	1	-	4	3
Portland, Oreg.	113	83	17	9	2	2	10
Sacramento, Calif.	168	126	27	10	2	3	22
San Diego, Calif.	151	100	27	17	3	2	15
San Francisco, Calif.	167	89	34	32	5	6	5
San Jose, Calif.	193	132	34	17	4	6	15
Seattle, Wash.	160	114	28	14	2	2	4
Spokane, Wash.	53	36	12	2	3	-	11
Tacoma, Wash.	45	36	8	-	-	1	2
TOTAL	12,951††	8,546	2,656	1,018	308	412	655

* 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 4 weeks.

Epidemiologic Notes and Reports

Regional Workshop on Dracunculiasis in Africa

The First Regional Workshop on Dracunculiasis (guinea-worm disease) in Africa was convened at the Palais des Congrés in Niamey, Niger, from July 1-3, 1986. Over 50 participants attended, including representatives of 14 of the 19 African countries affected (Benin, Burkina Faso, Cameroon, Chad, Côte d'Ivoire, Ethiopia, Guinea, Mali, Niger, Nigeria, Senegal, Sudan, Togo, and Uganda). The objectives of the workshop were to assist the affected member states in:

- reviewing the progress made to date in establishing a reasonable baseline for the necessary surveillance;
- clarifying the extent of the disease and its adverse socioeconomic impact;
- reviewing the various intervention measures and strategies available for guinea-worm control and their relative cost-effectiveness; and
- identifying areas in which specific research is required.

Significant new surveillance information was presented at the workshop. With the exception of Côte d'Ivoire, all the data on nationally reported incidence in Africa are based on passive surveillance. The following eight countries in the African Region reported surveillance information covering 1985: Burkina Faso, Cameroon, Côte d'Ivoire, Ethiopia, Mali, Mauritania, Togo, and Uganda. Although this represents an improvement over recent years, several countries are still not providing official reports.

Numerous qualitative, anecdotal examples of the negative socioeconomic effects of dracunculiasis were cited during the meeting. These included temporary disability lasting for months or even up to a year in some victims; permanent disability (unusual although not rare); sterility; frequent absenteeism from school; and substantial agricultural losses.

The disease is sporadically distributed over a wide band north of the equator from Mauritania to Ethiopia. Over 100 million people are now estimated to be at risk of contracting dracunculiasis in Africa alone, if one considers as being at risk any person living in a rural district or subprefecture where at least one case of the disease occurs.

Although dracunculiasis is officially reportable in at least eight of the countries affected (Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Ethiopia, Ghana, Togo, and Uganda), it is still vastly under-reported even in those countries.

Adapted from WHO Weekly Epidemiological Record 1986;61:321-4.

Editorial Note: At the time of this conference, eight of the 19 affected African countries (Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Niger, Nigeria, Togo, and Uganda) had dracunculiasis programs underway or planned. This meeting took place 6 weeks after the 39th World Health Assembly adopted a resolution calling for elimination of dracunculiasis. A second African regional meeting on this subject is to be held in Accra, Ghana, in 1988.

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

Disease	52nd Week Ending			Cumulative, 52nd Week Ending		
	Dec. 27, 1986	Dec. 28, 1985	Median 1981-1985	Dec. 27, 1986	Dec. 28, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	90	183	N	12,874	8,011	N
Aseptic meningitis	165	221	209	10,613	10,379	9,733
Encephalitis: Primary (arthropod-borne & unspec.)	18	35	40	1,213	1,320	1,540
Post-infectious	1	3	3	98	118	101
Gonorrhea: Civilian	13,134	13,646	14,160	884,235	883,826	898,104
Military	209	344	344	16,887	20,488	23,791
Hepatitis: Type A	378	654	727	22,703	23,169	23,169
Type B	386	755	755	25,452	26,528	24,482
Non A, Non B	58	95	N	3,435	4,081	N
Unspecified	73	114	156	4,339	5,755	7,251
Legionellosis	18	28	N	810	780	N
Leprosy	1	2	12	254	352	251
Malaria	14	26	30	1,080	1,034	1,034
Measles: Total*	20	77	48	6,236	2,812	2,579
Indigenous	20	74	N	5,933	2,373	N
Imported	-	3	N	297	439	N
Meningococcal infections: Total	49	68	86	2,443	2,425	2,729
Civilian	49	68	85	2,441	2,418	2,713
Military	-	-	-	2	7	14
Mumps	275	62	84	5,845	2,955	3,348
Pertussis	23	101	101	4,100	3,579	2,288
Rubella (German measles)	15	5	12	500	618	959
Syphilis (Primary & Secondary): Civilian	456	467	459	27,098	26,868	30,876
Military	1	7	7	161	163	361
Toxic Shock syndrome	5	9	N	345	367	N
Tuberculosis	532	997	864	22,149	22,144	23,840
Tularemia	1	3	11	166	178	288
Typhoid fever	11	22	22	322	403	420
Typhus fever, tick-borne (RMSF)	1	11	11	745	698	971
Rabies, animal	48	115	100	5,242	5,394	5,824

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1986		Cum. 1986
Anthrax	-	Leptospirosis	40
Botulism: Foodborne	18	Plague	10
Infant (Calif. 1)	70	Poliomyelitis, Paralytic	2
Other	1	Psittacosis (Oreg. 1, Calif. 1)	95
Brucellosis (Mass. 2, Ark. 1)	87	Rabies, human	-
Cholera	17	Tetanus	61
Congenital rubella syndrome	11	Trichinosis	32
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	48
Diphtheria	-		

*There were no cases of internationally imported measles reported for this week.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending December 27, 1986 and December 28, 1985 (52nd Week)

Reporting Area	AIDS	Aseptic Menin-gitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionel-losis	Leprosy
			Primary	Post-in-fectious			A	B	NA,NB	Unspeci-fied		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	12,874	165	1,213	98	884,235	883,826	378	386	58	73	18	254
NEW ENGLAND	492	-	32	3	24,121	22,540	12	30	2	8	-	8
Maine	20	-	4	-	847	1,147	-	1	-	-	-	-
N H	13	-	2	-	584	573	2	9	-	-	-	-
Vt	5	-	4	2	264	335	-	2	-	-	-	-
Mass	272	-	6	-	8,656	9,528	4	14	2	8	-	8
R I	34	-	-	-	1,866	1,843	-	-	-	-	-	-
Conn	148	-	16	1	11,904	9,114	6	4	-	-	-	-
MID ATLANTIC	4,728	16	114	10	156,937	129,038	-	12	1	16	1	20
Upstate N Y	494	3	39	6	18,978	18,178	-	10	1	1	-	1
N Y City	3,185	-	20	1	90,902	62,803	-	2	-	15	-	18
N J	745	10	11	-	20,277	19,592	-	-	-	-	1	-
Pa	304	3	44	3	26,780	28,465	-	-	-	-	-	1
E N CENTRAL	799	15	371	11	113,942	114,850	17	24	4	1	5	5
Ohio	188	9	140	3	29,992	31,737	5	8	2	-	3	-
Ind	67	U	82	3	12,131	12,504	U	U	U	U	U	-
Ill	363	-	50	4	26,236	26,172	6	2	-	-	-	4
Mich	139	6	65	1	37,928	33,516	6	14	2	1	2	1
Wis	42	U	34	-	7,403	10,921	U	U	U	U	U	1
W N CENTRAL	243	14	92	9	37,791	41,074	3	20	2	-	3	4
Minn	98	3	40	-	5,431	5,997	-	2	-	-	-	2
Iowa	20	-	29	-	3,865	4,302	2	3	-	-	-	-
Mo	73	11	3	-	18,665	19,993	-	14	2	-	-	-
N Dak	3	-	4	-	304	288	-	-	-	-	-	-
S Dak	2	-	11	-	774	790	-	1	-	-	3	-
Nebr	11	-	2	1	2,799	3,565	-	-	-	-	-	-
Kans	36	-	3	8	5,953	6,139	1	-	-	-	-	2
S ATLANTIC	1,857	10	154	40	229,384	231,555	21	83	7	4	4	4
Del	23	-	6	-	3,738	4,443	-	-	-	-	-	-
Md	180	-	36	1	27,095	29,589	3	23	4	-	-	-
D C	240	-	1	1	16,958	15,695	-	1	-	-	-	-
Va	157	2	43	1	18,787	19,234	2	11	-	2	-	1
W Va	8	-	46	-	2,232	2,598	2	1	-	1	1	-
N C	81	3	18	2	35,968	36,320	3	10	2	-	2	-
S C	50	-	-	-	19,054	21,326	-	6	-	-	-	-
Ga	285	1	-	1	38,212	44,723	1	11	1	1	1	-
Fla	833	4	4	34	67,340	57,627	10	20	-	-	-	3
E S CENTRAL	161	62	70	4	70,342	76,081	2	42	4	2	4	1
Ky	31	7	32	1	7,743	8,732	-	5	2	-	-	-
Tenn	73	3	8	1	26,504	29,534	-	15	-	-	-	-
Ala	29	42	29	2	20,786	22,506	2	14	2	1	3	1
Miss	28	10	1	-	15,309	15,309	-	8	-	1	1	-
W S CENTRAL	1,179	9	187	8	100,393	110,285	30	19	3	11	-	25
Ark	29	-	-	4	9,590	10,350	7	2	1	-	-	1
La	159	1	19	-	17,618	20,767	2	2	-	-	-	1
Okla	41	2	22	-	11,681	12,470	3	7	1	3	-	-
Tex	950	6	146	4	61,504	66,698	18	8	1	8	-	23
MOUNTAIN	342	4	40	1	25,716	28,022	57	31	2	6	1	13
Mont	5	-	1	1	669	795	1	1	-	-	-	-
Idaho	3	-	-	-	872	991	-	-	1	-	-	-
Wyo	4	-	2	-	535	648	-	-	1	-	-	-
Colo	166	-	5	-	6,599	8,110	9	5	-	5	-	3
N Mex	25	1	3	-	2,755	3,112	12	6	-	-	-	-
Ariz	81	3	19	-	8,219	8,576	31	13	-	1	1	7
Utah	21	-	8	-	1,115	1,349	1	1	-	-	-	1
Nev	37	-	2	-	4,952	4,441	3	5	-	-	-	2
PACIFIC	3,073	35	153	12	125,609	130,381	236	125	33	25	-	174
Wash	174	2	15	-	9,064	10,073	29	18	4	7	-	17
Oreg	63	-	-	-	5,387	6,367	43	21	12	-	-	-
Calif	2,768	30	130	12	107,474	109,081	159	83	17	18	-	118
Alaska	14	1	7	-	2,643	3,178	5	2	-	-	-	-
Hawaii	54	2	1	-	1,293	1,682	-	1	-	-	-	38
Guam	-	-	-	-	225	199	-	-	-	-	-	1
P R	115	U	5	1	2,343	3,076	U	U	U	U	U	7
V I	4	-	-	-	268	395	-	-	-	-	-	-
Pac Trust Terr	-	-	-	-	483	766	1	-	-	-	-	63
Amer Samoa	-	-	-	-	59	-	-	-	-	-	-	3

N Not notifiable U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 27, 1986 and December 28, 1985 (52nd Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum. 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	Cum 1986	1986	Cum 1986	1986	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985
UNITED STATES	1,080	20	5,933	-	297	2,812	2,443	275	5,845	23	4,100	3,579	15	500	618
NEW ENGLAND	65	-	88	-	16	126	170	2	72	4	183	216	-	9	14
Maine	2	-	12	-	1	1	29	-	-	-	2	9	-	-	-
N H	4	-	43	-	-	-	6	1	15	1	85	113	-	1	3
Vt	2	-	-	-	-	-	19	-	5	-	3	4	-	1	-
Mass	33	-	24	-	13	118	52	1	16	3	60	54	-	4	7
R I	8	-	2	-	-	-	23	-	13	-	7	23	-	2	-
Conn	16	-	7	-	2	7	41	-	23	-	26	13	-	1	4
MID ATLANTIC	148	-	1,940	-	37	236	388	1	218	2	224	271	-	37	234
Upstate N Y	54	-	77	-	24	86	137	1	76	2	143	134	-	27	21
N Y City	31	-	931	-	6	80	71	-	29	-	10	29	-	5	188
N J.	37	-	906	-	5	30	30	-	53	-	20	12	-	5	11
Pa	26	-	26	-	2	40	150	-	60	-	51	96	-	-	14
E N CENTRAL	61	-	1,123	-	28	582	378	106	3,661	3	390	856	7	57	39
Ohio	19	-	-	-	10	60	149	7	150	3	170	120	-	1	-
Ind	2	U	27	U	11	57	39	U	90	U	36	216	U	-	1
Ill	16	-	705	-	4	346	86	73	2,670	-	39	86	-	39	20
Mich	20	-	107	-	-	60	79	26	468	-	36	54	7	15	17
Wis	4	U	284	U	3	59	24	U	283	U	106	380	U	2	1
W N CENTRAL	32	-	324	-	18	14	113	9	229	1	1,409	271	-	14	19
Minn	10	-	45	-	5	6	24	4	48	1	49	139	-	1	2
Iowa	1	-	133	-	1	-	11	3	87	-	19	34	-	1	1
Mo	12	-	26	-	6	5	41	1	27	-	24	35	-	1	7
N Dak	-	-	25	-	1	2	1	-	4	-	5	10	-	1	2
S Dak	2	-	-	-	-	-	5	-	1	-	14	11	-	-	-
Nebr	4	-	1	-	-	-	12	-	2	-	10	11	-	-	-
Kans	3	-	94	-	5	1	19	1	60	-	1,288	31	-	10	7
S ATLANTIC	132	18	808	-	57	344	437	3	261	3	784	571	-	12	56
Del	1	-	1	-	-	-	8	-	1	-	227	2	-	-	2
Md	14	-	26	-	9	115	50	-	31	-	167	328	-	1	6
D C	5	-	-	-	2	31	6	-	1	-	-	-	-	-	-
Va	37	-	36	-	24	28	78	-	46	-	56	21	-	-	2
W Va	4	-	2	-	-	33	4	-	49	1	27	5	-	-	9
N C	7	-	3	-	1	9	67	-	29	2	88	39	-	-	1
S C	7	-	274	-	-	3	46	-	19	-	18	3	-	-	3
Ga	14	-	79	-	14	8	63	-	28	-	135	102	-	-	3
Fla	43	18	387	-	7	117	115	3	57	-	66	71	-	11	30
E S CENTRAL	22	-	61	-	9	7	124	13	330	-	47	74	-	4	3
Ky	6	-	-	-	6	5	31	-	6	-	5	9	-	4	3
Tenn	1	-	55	-	1	1	37	13	319	-	16	28	-	-	-
Ala	10	-	1	-	1	-	41	-	4	-	25	30	-	-	-
Miss	5	-	5	-	1	1	15	-	1	-	1	7	-	-	-
W S CENTRAL	107	-	680	-	38	493	228	126	416	-	254	575	-	73	42
Ark	1	-	276	-	2	-	31	123	184	-	20	17	-	1	1
La	19	-	4	-	-	42	28	2	7	-	16	18	-	-	-
Okla	12	-	37	-	2	1	33	N	N	-	129	182	-	-	2
Tex	75	-	363	-	34	450	136	1	225	-	89	358	-	72	39
MOUNTAIN	42	-	303	-	29	541	113	3	266	-	282	272	-	24	6
Mont	1	-	-	-	8	137	11	-	6	-	20	10	-	2	-
Idaho	1	-	1	-	-	137	4	-	9	-	51	30	-	-	2
Wyo	-	-	-	-	-	5	2	-	-	-	4	1	-	1	-
Colo	13	-	2	-	8	15	22	1	18	-	66	107	-	1	-
N Mex	5	-	33	-	7	6	13	N	N	-	29	15	-	-	2
Ariz	15	-	252	-	6	241	24	1	206	-	65	49	-	2	1
Utah	4	-	13	-	-	-	10	1	16	-	43	60	-	15	-
Nev	3	-	2	-	-	-	27	-	11	-	4	-	-	3	1
PACIFIC	471	2	606	-	65	469	492	12	392	10	527	473	8	270	205
Wash	33	-	148	-	28	171	67	2	26	3	161	92	-	17	16
Oreg	19	-	7	-	4	5	38	N	N	-	16	54	-	4	2
Calif	418	2	424	-	31	269	359	10	334	5	312	278	7	242	138
Alaska	-	-	-	-	-	-	14	-	8	-	5	30	-	-	1
Hawaii	1	-	27	-	2	24	15	-	24	2	36	19	1	7	48
Guam	2	-	4	-	1	11	1	-	4	-	-	-	-	4	3
P R	4	U	44	U	-	67	4	U	34	U	19	16	U	62	27
V I	-	-	-	-	-	10	-	1	18	-	-	-	-	-	-
Pac Trust Terr	-	-	-	-	-	-	1	-	11	-	-	-	-	4	-
Amer Samoa	-	-	2	-	-	-	-	-	5	-	-	-	-	1	-

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

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

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending December 27, 1986 and December 28, 1985 (52nd Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum 1986	Cum 1985	1986	Cum 1986	Cum 1985	Cum 1986	Cum 1986	Cum 1986	Cum 1986
UNITED STATES	27,098	26,868	5	22,149	22,144	166	322	745 – 1	5,242
NEW ENGLAND	487	588	-	678	744	1	16	13	8
Maine	19	17	-	34	47	-	-	-	-
N H	13	41	-	23	23	-	-	2	1
Vt	9	8	-	17	8	-	-	-	2
Mass	264	286	-	379	449	1	13	4	-
R I	19	20	-	49	53	-	-	3	3
Conn	163	216	-	176	164	-	3	4	2
MID ATLANTIC	3,891	3,636	-	4,310	3,890	2	26	41	666
Upstate N Y	201	271	-	613	661	-	5	20	84
N Y City	2,205	2,190	-	2,271	1,909	-	11	6	-
N J	680	706	-	720	549	2	9	2	17
Pa	805	469	-	706	771	-	1	13	565
E N CENTRAL	838	978	-	2,600	2,667	1	23	44 – 2	142
Ohio	125	146	-	463	459	-	9	38 – 2	16
Ind	108	83	U	269	336	-	2	-	17
Ill	384	429	-	1,138	1,193	-	3	2	44
Mich	180	254	-	622	537	1	6	4	25
Wis	41	66	U	108	142	-	3	-	40
W N CENTRAL	206	236	2	640	650	48	9	53 + 1	827
Minn	33	45	2	151	132	-	2	1	145
Iowa	8	20	-	46	60	1	-	1	187
Mo	109	133	-	318	311	37	6	29	71
N Dak	5	2	-	10	12	-	-	1	153
S Dak	9	6	-	29	31	3	-	6	178
Nebr	11	8	-	18	22	1	-	5	37
Kans	31	22	-	68	82	6	1	10	56
S ATLANTIC	8,281	7,723	-	4,542	4,700	13	47	333	1,320
Del	62	41	-	47	53	-	1	1	1
Md	471	501	-	306	418	2	16	29	574
D C	294	336	-	162	157	1	4	-	38
Va	324	296	-	388	488	3	10	51	199
W Va	20	26	-	123	109	-	3	10	60
N C	533	682	-	731	654	3	4	129	10
S C	696	794	-	590	568	-	1	71	65
Ga	1,507	1,399	-	741	828	4	-	40	201
Fla	4,374	3,648	-	1,454	1,425	-	8	2	172
E S CENTRAL	1,801	2,069	1	1,941	1,925	16	4	111	361
Ky	69	65	-	439	463	7	-	22	106
Tenn	634	645	-	581	576	7	1	46	138
Ala	516	651	1	601	531	1	1	25	114
Miss	582	708	-	320	355	1	2	18	3
W S CENTRAL	5,088	6,206	1	2,848	2,759	69	34	139	720
Ark	255	319	-	393	362	50	-	16	163
La	917	1,076	-	433	388	1	3	1	22
Okla	153	201	-	252	259	13	2	103	62
Tex	3,763	4,610	1	1,770	1,750	5	29	19	473
MOUNTAIN	644	772	-	546	625	12	16	10	658
Mont	7	6	-	29	50	1	1	4	216
Idaho	16	8	-	25	26	-	-	2	9
Wyo	4	14	-	-	8	1	-	1	279
Colo	141	215	-	68	106	3	1	3	29
N Mex	74	126	-	103	94	2	1	-	6
Ariz	268	325	-	249	271	-	9	-	101
Utah	21	13	-	31	31	4	3	-	7
Nev	113	65	-	41	39	1	1	-	11
PACIFIC	5,862	4,660	1	4,044	4,184	4	147	1	540
Wash	168	115	-	215	220	1	3	-	5
Oreg	127	111	-	134	139	-	-	-	1
Calif	5,531	4,360	1	3,446	3,526	2	137	1	526
Alaska	2	4	-	65	110	1	1	-	8
Hawaii	34	70	-	184	189	-	6	-	-
Guam	1	2	-	35	38	-	1	-	-
P R	849	875	U	340	342	-	5	-	47
V I	1	3	-	1	6	-	-	-	-
Pac Trust Terr	314	128	-	97	75	-	49	-	-
Amer Samoa	1	-	-	5	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending December 27, 1986 (52nd Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	594	410	111	36	16	20	57
Boston, Mass.	143	80	37	14	4	7	24
Bridgeport, Conn.	53	40	9	2	1	1	4
Cambridge, Mass.	33	29	2	2	-	-	4
Fall River, Mass.	16	13	3	-	-	-	-
Hartford, Conn.	47	33	8	3	1	2	1
Lowell, Mass.	20	15	3	1	1	-	1
Lynn, Mass.	20	15	4	1	-	-	2
New Bedford, Mass.	29	22	5	2	-	-	-
New Haven, Conn.	39	24	9	4	1	1	2
Providence, R.I.	54	37	10	-	3	4	5
Somerville, Mass.	9	8	1	-	-	-	2
Springfield, Mass.	38	24	9	1	2	2	4
Waterbury, Conn.	24	17	3	2	2	-	1
Worcester, Mass.	69	53	8	4	1	3	7
MID ATLANTIC	2,415	1,585	505	225	46	54	120
Albany, N.Y.	57	30	15	6	1	5	-
Allentown, Pa.	33	33	-	-	-	-	3
Buffalo, N.Y.	134	87	29	9	4	5	9
Camden, N.J.	27	18	5	1	2	1	-
Elizabeth, N.J.	36	24	6	6	-	-	1
Erie, Pa.†	45	31	9	2	1	2	4
Jersey City, N.J.	43	23	10	6	-	4	2
N.Y. City, N.Y.	1,352	868	297	139	27	21	65
Newark, N.J.	54	18	14	15	4	3	1
Paterson, N.J.	33	20	7	5	1	-	4
Philadelphia, Pa.	196	131	44	15	3	3	7
Pittsburgh, Pa.†	15	7	7	1	-	-	-
Reading, Pa.	41	37	4	-	-	-	6
Rochester, N.Y.	106	73	22	9	2	-	8
Schenectady, N.Y.	28	27	1	-	-	-	2
Scranton, Pa.†	37	32	5	-	-	-	3
Syracuse, N.Y.	93	70	11	3	1	8	3
Trenton, N.J.	35	20	11	4	-	-	1
Utica, N.Y.	20	15	4	1	-	-	-
Yonkers, N.Y.	30	21	4	3	-	2	1
E.N. CENTRAL	2,130	1,408	474	143	40	65	86
Akron, Ohio	94	59	23	9	-	3	5
Canton, Ohio	38	26	9	-	1	2	4
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	96	58	28	7	2	1	13
Cleveland, Ohio	134	83	33	10	5	3	3
Columbus, Ohio	172	101	44	15	5	7	6
Dayton, Ohio	83	66	12	-	2	3	3
Detroit, Mich.§	256	159	56	25	8	8	5
Evansville, Ind.	33	23	8	1	-	1	1
Fort Wayne, Ind.	44	36	7	1	-	-	1
Gary, Ind.	6	4	1	1	-	-	1
Grand Rapids, Mich.	62	43	13	6	-	-	2
Indianapolis, Ind.	134	93	32	4	2	3	2
Madison, Wis.§	38	27	8	2	-	1	5
Milwaukee, Wis.	103	71	23	4	1	4	4
Peoria, Ill.	35	22	9	2	1	1	3
Rockford, Ill.	44	34	8	1	-	1	2
South Bend, Ind.	35	25	4	3	2	1	5
Toledo, Ohio	97	72	18	3	1	3	5
Youngstown, Ohio	62	44	13	4	-	1	-
W.N. CENTRAL	837	569	165	57	24	22	45
Des Moines, Iowa	72	54	13	3	1	1	4
Duluth, Minn.	27	21	4	2	-	-	-
Kansas City, Kans.	33	21	5	1	3	3	1
Kansas City, Mo.	133	92	27	6	7	1	9
Lincoln, Nebr.	23	17	5	-	1	-	2
Minneapolis, Minn.	255	174	44	30	2	5	10
Omaha, Nebr.	71	50	12	1	4	4	5
St. Louis, Mo.	124	76	29	12	3	4	10
St. Paul, Minn.	41	29	9	1	-	2	1
Wichita, Kans.	58	35	17	1	3	2	3

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,120	687	266	96	36	34	49
Atlanta, Ga.§	144	91	33	12	4	4	3
Baltimore, Md.	251	158	56	20	10	7	11
Charlotte, N.C.	61	40	12	5	2	2	6
Jacksonville, Fla.	52	37	12	1	2	-	5
Miami, Fla.	85	42	22	12	4	5	1
Norfolk, Va.	34	19	9	1	3	2	2
Richmond, Va.	67	41	18	7	1	-	2
Savannah, Ga.	40	29	10	-	1	-	6
St. Petersburg, Fla.	96	72	20	2	1	1	6
Tampa, Fla.	47	25	12	4	1	4	2
Washington, D.C.§	212	111	56	29	7	9	5
Wilmington, Del.	31	22	6	3	-	-	-
E.S. CENTRAL	622	405	150	34	15	18	33
Birmingham, Ala.	128	84	28	7	3	6	2
Chattanooga, Tenn.	48	35	9	3	-	1	4
Knoxville, Tenn.	67	45	17	1	3	1	4
Louisville, Ky.	67	37	18	4	3	5	3
Memphis, Tenn.	152	106	31	10	2	3	12
Mobile, Ala.	60	32	20	5	3	-	3
Montgomery, Ala.	34	26	7	1	-	-	2
Nashville, Tenn.	66	40	20	3	1	2	3
W.S. CENTRAL	923	557	227	70	32	37	36
Austin, Tex.	36	22	6	4	3	1	2
Baton Rouge, La.	39	22	12	1	2	2	3
Corpus Christi, Tex.	32	25	5	1	-	1	2
Dallas, Tex.	161	86	39	26	3	7	1
El Paso, Tex.	37	23	11	2	-	1	1
Fort Worth, Tex.	75	46	18	4	2	5	4
Houston, Tex.	170	98	44	18	7	3	4
Little Rock, Ark.	57	32	19	1	1	4	4
New Orleans, La.	69	43	12	3	6	5	2
San Antonio, Tex.	152	95	33	9	7	8	9
Shreveport, La.	60	41	19	-	-	-	3
Tulsa, Okla.	35	24	9	1	1	-	1
MOUNTAIN	570	347	131	50	25	16	42
Albuquerque, N.Mex.	62	33	14	13	-	2	2
Colo. Springs, Colo.	34	18	8	2	4	2	3
Denver, Colo.	88	59	19	4	6	-	6
Las Vegas, Nev.	99	57	26	10	2	3	8
Ogden, Utah	24	18	5	1	-	-	5
Phoenix, Ariz.	127	73	27	12	10	5	9
Pueblo, Colo.	16	10	4	1	1	-	1
Salt Lake City, Utah	32	20	5	3	2	2	-
Tucson, Ariz.	88	59	23	4	-	2	8
PACIFIC	1,750	1,208	306	133	57	39	98
Berkeley, Calif.	20	16	2	2	-	-	1
Fresno, Calif.	67	42	10	11	3	1	3
Glendale, Calif.	34	28	2	3	-	1	1
Honolulu, Hawaii	52	33	11	6	-	2	1
Long Beach, Calif.	84	65	6	4	3	6	13
Los Angeles, Calif.	474	327	88	33	16	5	18
Oakland, Calif.	51	34	12	2	2	1	3
Pasadena, Calif.§	27	22	3	1	-	1	1
Portland, Oreg.	150	97	28	16	4	5	10
Sacramento, Calif.	127	94	20	4	6	3	13
San Diego, Calif.	94	66	16	6	3	3	7
San Francisco, Calif.	158	99	28	24	4	1	6
San Jose, Calif.	146	95	26	10	11	4	7
Seattle, Wash.	167	117	35	9	3	3	4
Spokane, Wash.	56	40	10	1	2	3	7
Tacoma, Wash.	43	33	9	1	-	-	3
TOTAL	10,961††	7,176	2,335	844	291	305	566

* 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 4 weeks.

FIGURE IV. Reported measles cases — United States, weeks 47-50, 1986

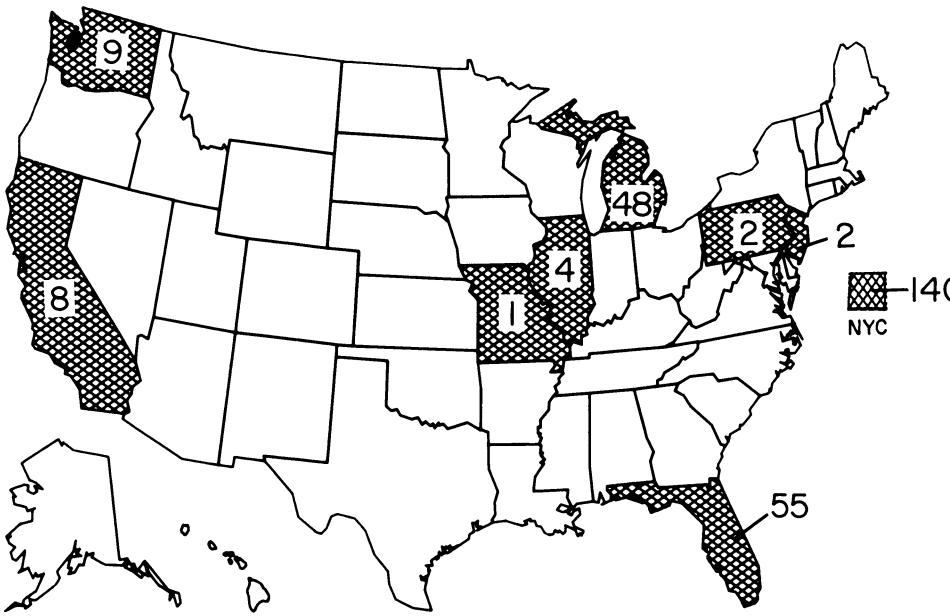
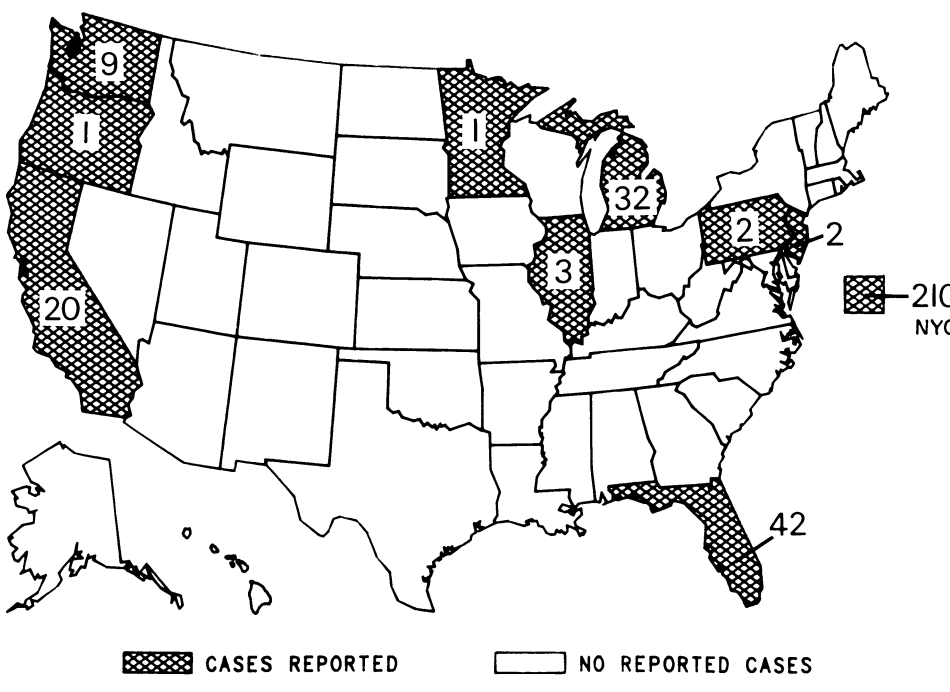


FIGURE IV. Reported measles cases — United States, weeks 48-51, 1986



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

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

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