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Epidemiologic Notes and Reports

Aedes albopictus Infestation — United States, Brazil

United States. In August 1985, an established infestation of *Aedes albopictus*, an exotic mosquito species, was discovered in Houston (Harris County), Texas (*1,2*). In 1986, with the advent of warm weather and spring rainfall, efforts were begun to determine the extent of this infestation. During April and May, *Ae. albopictus* was found in counties adjacent to Houston; in New Orleans, Louisiana, and surrounding parishes; and in Memphis, Tennessee. In June and early July, the mosquito was reported from Gulfport, Mississippi, and Jacksonville, Florida.

A systematic survey of 41 cities and towns in six southern states was conducted in July 1986. Because of the propensity of *Ae. albopictus* to oviposit in discarded tires containing rainwater, sites selected for survey were used-tire dumps, dealers, and recappers. *Ae. albopictus* was found to be widely disseminated in the southern United States but to have a spotty and discontinuous distribution (Figure 1). In many sites, *Ae. albopictus* was abundant and aggressively biting humans. The presence of *Ae. aegypti* in an area did not appear to retard the ingress of *Ae. albopictus; Ae. albopictus* had replaced *Ae. aegypti* in many locations.

The extent of *Ae. albopictus* distribution in the United States remains incompletely known. Efforts are under way to extend surveillance to other states, including those in the north-central United States where California encephalitis group viruses are endemic. The Houston population of *Ae. albopictus* has been shown in the laboratory to resemble northern Asian populations that are capable of diapause, i.e., cessation of egg-hatching following exposure of pupae to short day-length intervals. This indicates that *Ae. albopictus* would be capable of overwinter survival in northern latitudes.

Brazil. *Ae. albopictus* has been found in Rio de Janeiro and in two neighboring states, Espirito Santo and Minas Gerais. Identification of the species was confirmed by entomologists from the Oswaldo Cruz Institute and Pan American Health Organization. At present, there is no indication that *Ae. albopictus* is involved in virus transmission in Brazil.

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Aedes albopictus — *Continued*

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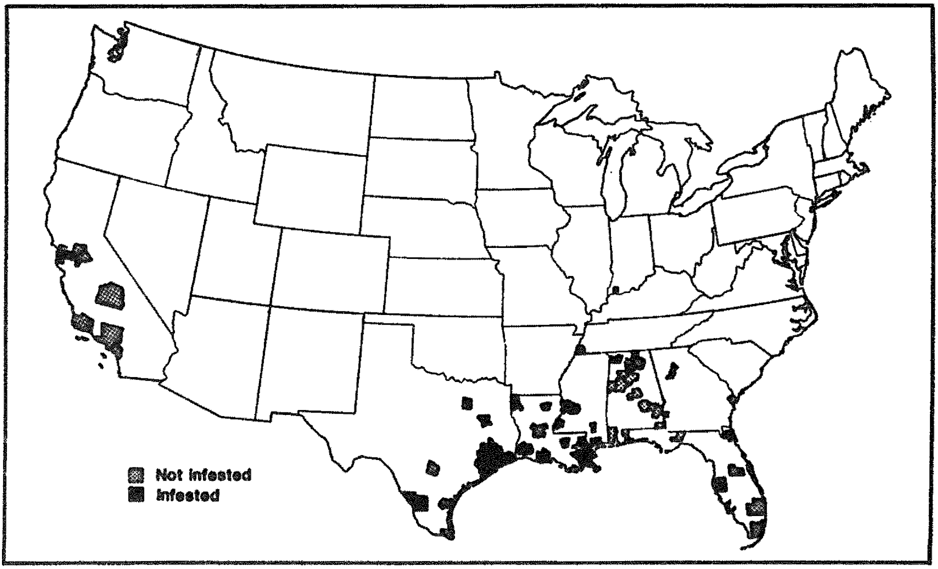
Editorial Note: *Ae. albopictus*, the Asian "tiger mosquito," has been repeatedly implicated in epidemic dengue and dengue hemorrhagic fever transmission in Asia (*3,4*). Laboratory studies have shown it to be a more efficient vector of dengue virus than *Ae. aegypti* (*5*) and a competent vector of California encephalitis group viruses (*6*), yellow fever virus (*7*), epidemic polyarthritis (Ross River) virus (*8*), and other agents. *Ae. albopictus* has not been incriminated in the spread of any viral disease in the Americas, but it represents a public health concern because of its potential to infest areas where dengue, yellow fever, or pathogenic California group viruses are present and, once introduced into such areas, to spread these viruses into areas previously free of them.

The discontinous distribution of *Ae. albopictus* in the southern United States found during the recent survey suggests the infestation may be contained through programs of surveillance, removal of breeding sites (especially tires), interruption of interstate dispersal of tires, and judicious use of insecticides in breeding sites. Studies are presently under way at CDC in collaboration with state and local agencies to determine the feasibility of these approaches. Critical features of the program include delineation of the full distribution of *Ae. albopictus*, determination of the vector's routes of spread from infested areas, and definition of the biologic attributes of the mosquito that relate to control.

FIGURE 1. Distribution of *Aedes albopictus*, by counties reporting — United States, as of July 25, 1986



Aedes albopictus – *Continued*

The recent report that *Ae. albopictus* is established in Brazil is especially relevant because of the occurrence of a dengue type 1 epidemic in Rio de Janeiro and several other locations. Although evidence indicates that *Ae. aegypti* was the principal epidemic vector, it will now be important to determine the possible contribution of *Ae. albopictus* to dengue transmission. In addition, since *Ae. albopictus* is capable of breeding in tree h...s and similar woodland habitats, as well as in urban environments, it may potentially serve as a link between jungle yellow fever and urban transmission of this virus in Brazil.

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Current Trends

Decrease in Lung Cancer Incidence among Males — United States, 1973-1983

Analysis of lung cancer data from the National Cancer Institute's Surveillance, Epidemiology, and End Results Program (SEER)* (*1*) indicates that the incidence rate of lung cancer for white males increased at annual rates of up to 10% per year until the 1970s. In the early 1980's, the rate of increase slowed, then leveled. This was followed by a 4% decrease in rates from 1982 to 1983 (*2*). It is estimated that the leveling and subsequent decrease in lung cancer incidence has resulted in over 7,000 fewer cases in 1983 alone. This estimate was developed by fitting an exponential model to the incidence data for 1973 through 1978 and extrapolating the expected numbers from the model to 1983.

Both incidence and mortality due to lung cancer have been decreasing for men under 45 years of age since at least 1973, and for men between 45 and 54 years of age, since 1978. For men over 54 years of age, the rates have leveled. Data for black males show age-adjusted

*SEER data are monitored routinely for trends in cancer incidence. SEER incidence data covers the population of the states of Connecticut, Hawaii, Iowa, New Mexico, and Utah and the metropolitan areas of Atlanta, Detroit, San Francisco-Oakland, and Seattle and represent approximately 10% of the U.S. population.

Lung Cancer — Continued

incidence rates that are approximately 50% higher than for whites; however, the trends in rates are similar in the two groups. Lung cancer mortality data for U.S. men have leveled to an age-adjusted rate of 71.2 in 1983. Mortality rates for black males have leveled to an age-adjusted rate of 97.3 in 1983. Because survival from lung cancer is poor, it is expected that decreases in lung cancer mortality will be noted in the 1984 data.

Lung cancer incidence and mortality rates for females continued to increase markedly during the same period. Age-adjusted incidence and mortality rates of 32.6 and 24.3, respectively, represented over 41,000 new cases of lung cancer and over 35,000 deaths among U.S. women in 1983.

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Editorial Note: Approximately 15% of all invasive cancers diagnosed annually are cancer of the lung, and roughly 149,000 new cases and 130,000 deaths are expected in 1986 (*3*). It has long been established that cigarette smoking is the primary cause of lung cancer in the United States. The Surgeon General's report on smoking and health, published in 1964, was

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

Disease	31st Week Ending			Cumulative, 31st Week Ending		
	Aug. 2, 1986	Aug. 3, 1985	Median 1981-1985	Aug. 2, 1986	Aug. 3, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	192	188	N	7,262	4,478	N
Aseptic meningitis	341	325	336	3,815	3,431	3,507
Encephalitis: Primary (arthropod-borne & unspec.)	29	23	38	515	589	608
Post-infectious	-	3	1	63	36	60
Gonorrhea: Civilian	17,524	18,604	18,604	501,752	513,903	524,170
Military	359	389	613	9,396	12,500	14,093
Hepatitis: Type A	455	593	414	1[illegible] 845	12,835	12,835
Type B	616	619	497	[illegible],263	14,986	13,908
Non A, Non B	87	105	N	2,097	2,453	N
Unspecified	103	143	143	2,786	3,385	4,257
Legionellosis	15	15	N	358	416	N
Leprosy	5	7	5	168	218	152
Malaria	36	41	22	569	577	577
Measles: Total*	98	38	33	4,732	2,161	2,145
Indigenous	91	29	N	4,499	1,824	N
Imported	7	9	N	233	337	N
Meningococcal infections: Total	43	33	43	1,675	1,597	1,858
Civilian	43	33	43	1,673	1,591	1,884
Military	-	-	-	2	6	9
Mumps	79	35	33	3,019	2,075	2,310
Pertussis	88	131	58	1,567	1,242	1,202
Rubella (German measles)	5	9	10	360	447	728
Syphilis (Primary & Secondary): Civilian	533	500	596	15,013	15,748	17,749
Military	3	1	4	105	113	230
Toxic Shock syndrome	10	6	N	212	234	N
Tuberculosis	438	445	443	12,684	12,494	13,664
Tularemia	5	4	8	69	101	135
Typhoid fever	3	10	10	154	200	221
Typhus fever, tick-borne (RMSF)	27	26	44	423	374	640
Rabies, animal	71	115	107	3,203	3,144	3,759

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis	22
Botulism: Foodborne	5	Plague	4
Infant	28	Poliomyelitis, Paralytic	-
Other	1	Psittacosis (Pa. 1, Wash. 1, Alaska 1)	56
Brucellosis (Ark. 1, Tex. 1)	40	Rabies, human	-
Cholera	-	Tetanus (Ill. 1, Okla. 1, Tex. 2)	34
Congenital rubella syndrome	2	Trichinosis	20
Congenital syphilis, ages < 1 year	11	Typhus fever, flea-borne (endemic, murine) (Tex. 5, Hawaii 1)	29
Diphtheria	-		

*Five of the 98 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending August 2, 1986 and August 3, 1985 (31st Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis: Primary	Encephalitis: Post-infectious	Gonorrhea (Civilian)		Hepatitis (Viral), by type: A	B	NA,NB	Unspecified	Legionellosis	Leprosy
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	7,262	341	515	63	501,752	513,903	455	616	87	103	15	168
NEW ENGLAND	321	14	14	3	12,124	13,958	8	62	1	6	1	6
Maine	12	5	-	-	535	630	-	11	1	-	-	-
N H	6	2	2	-	311	324	-	-	-	-	1	-
Vt	3	1	2	2	159	183	-	2	-	-	-	-
Mass	164	6	3	-	4,996	5,388	4	32	-	6	-	6
R I	19	-	-	-	1,004	1,068	-	6	-	-	-	-
Conn	117	-	7	1	5,119	6,365	4	11	-	-	-	-
MID ATLANTIC	2,784	18	66	6	86,997	74,802	10	32	8	15	-	11
Upstate N Y	236	7	25	4	10,143	9,854	5	11	7	-	-	1
N Y City	1,887	1	14	-	51,519	37,852	-	1	-	14	-	9
N J	474	10	10	-	10,867	11,400	5	20	1	1	-	-
Pa	187	-	17	2	14,468	15,696	-	-	-	-	-	1
E N CENTRAL	444	92	131	9	66,068	68,306	22	36	3	4	1	4
Ohio	100	14	38	2	16,910	17,169	11	10	1	1	1	-
Ind	42	17	29	3	7,009	7,242	4	7	1	2	-	-
Ill	206	35	28	3	18,498	18,211	3	2	-	-	-	3
Mich	78	26	31	1	20,998	19,314	4	17	1	1	-	1
Wis	18	-	5	-	2,653	6,370	-	-	-	-	-	-
W N CENTRAL	143	16	19	8	22,162	23,801	8	15	4	1	4	2
Minn	56	5	10	-	3,101	3,473	-	1	-	-	-	1
Iowa	10	1	6	-	2,188	2,559	-	-	2	1	1	-
Mo	49	1	-	-	11,176	11,339	1	10	-	-	1	-
N Dak	2	-	-	-	190	159	-	-	-	-	-	-
S Dak	1	6	2	-	453	434	3	1	2	-	-	-
Nebr	6	2	-	1	1,669	2,123	-	-	-	-	2	-
Kans	19	1	1	7	3,385	3,714	4	3	-	-	-	1
S ATLANTIC	885	70	68	22	124,860	132,761	37	114	10	4	3	1
Del	16	-	4	-	2,099	2,401	1	-	-	-	-	-
Md	100	5	21	1	15,261	17,207	4	11	-	1	1	-
D C	132	-	-	1	9,742	8,899	-	3	-	-	-	-
Va	97	-	21	1	10,755	10,961	-	-	-	-	-	1
W Va	5	4	10	-	1,340	1,469	1	1	-	1	-	-
N C	41	19	10	1	20,646	20,299	-	8	-	-	-	-
S C	21	-	-	-	11,592	12,932	-	17	1	-	-	-
Ga	138	27	-	1	15,862	26,655	10	40	4	-	1	-
Fla	335	15	2	17	37,563	31,938	21	34	5	2	1	-
E S CENTRAL	99	10	32	3	41,347	42,928	9	26	2	-	-	1
Ky	19	-	13	1	4,628	4,834	6	3	1	-	-	-
Tenn	53	2	3	1	15,997	16,744	1	6	1	-	-	-
Ala	17	7	15	1	11,731	13,319	-	13	-	-	-	1
Miss	10	1	1	-	8,991	8,031	2	4	-	-	-	-
W S CENTRAL	480	33	69	3	61,326	65,166	53	56	9	37	4	12
Ark	21	-	-	-	5,619	6,364	1	1	-	1	1	-
La	100	4	3	-	10,958	12,784	3	13	1	-	-	1
Okla	27	2	14	-	6,838	6,879	6	8	4	2	1	-
Tex	332	27	52	3	37,911	39,139	43	34	4	34	2	11
MOUNTAIN	197	15	19	1	15,051	16,007	66	47	8	10	1	11
Mont	4	1	-	1	436	435	2	2	-	-	-	-
Idaho	2	2	-	-	497	499	-	2	1	1	-	-
Wyo	4	-	2	-	335	382	-	-	-	-	-	-
Colo	100	-	3	-	3,894	4,777	6	5	1	2	-	3
N Mex	11	1	2	-	1,530	1,821	7	-	-	1	-	-
Ariz	48	8	8	-	4,849	4,806	48	29	3	4	1	5
Utah	10	3	3	-	642	694	1	3	2	-	-	1
Nev	18	-	1	-	2,868	2,593	2	6	1	2	-	2
PACIFIC	1,909	73	97	8	71,817	76,174	242	228	42	26	1	120
Wash	82	1	10	-	5,385	5,527	34	41	9	3	1	14
Oreg	35	-	-	-	2,859	3,703	16	7	1	-	-	-
Calif	1,759	66	85	8	61,085	64,079	188	176	32	23	-	84
Alaska	9	-	2	-	1,656	1,803	4	3	-	-	-	-
Hawaii	24	6	-	-	832	1,062	-	1	-	-	-	22
Guam	-	-	-	-	105	119	-	-	-	1	-	1
P R	62	4	3	-	1,350	2,099	3	7	-	2	-	7
V I	2	U	-	-	139	300	U	U	U	U	U	-
Pac Trust Terr	-	-	-	-	255	574	4	-	-	1	-	31
Amer Samoa	-	-	-	-	30	-	-	1	-	-	-	1

N Not notifiable U Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending August 2, 1986 and August 3, 1985 (31st 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	569	91	4,499	7	233	2,161	1,675	79	3,019	80	1,567	1,242	5	360	447
NEW ENGLAND	30	-	74	-	6	119	117	-	49	-	97	63	-	9	11
Maine	1	-	10	-	-	-	23	-	-	-	2	4	-	-	-
N.H.	2	-	37	-	-	-	6	-	13	-	46	29	-	1	2
Vt.	1	-	-	-	-	-	15	-	2	-	3	3	-	1	-
Mass.	15	-	24	-	5	112	25	-	6	-	27	10	-	4	6
R.I.	4	-	2	-	-	-	15	-	9	-	3	11	-	2	-
Conn.	7	-	1	-	1	7	33	-	19	-	16	6	-	1	3
MID ATLANTIC	65	39	1,421	-	20	188	268	4	127	4	120	85	-	30	183
Upstate N.Y.	23	-	43	-	19	82	90	1	51	2	79	48	-	22	17
N.Y. City	18	39	480	-	1	57	55	-	5	-	3	9	-	5	142
N.J.	7	-	876	-	-	26	29	1	32	-	9	3	-	3	11
Pa.	17	-	22	-	-	23	94	2	39	2	29	25	-	-	13
E.N. CENTRAL	36	-	806	-	18	504	221	56	2,030	6	210	224	-	27	26
Ohio	10	-	-	-	10	52	89	3	99	5	87	25	-	-	-
Ind.	2	-	11	-	-	56	17	2	31	-	22	11	-	-	1
Ill.	13	-	515	-	3	285	59	51	1,485	1	27	27	-	19	10
Mich.	10	-	48	-	-	52	52	-	238	-	23	27	-	6	14
Wis.	1	-	232	-	5	59	4	-	177	-	51	134	-	2	1
W.N. CENTRAL	20	3	276	-	17	11	83	1	81	10	100	82	-	10	19
Minn.	5	-	43	-	4	6	16	-	1	-	37	20	-	-	2
Iowa	1	3	89	-	1	-	11	1	21	-	11	5	-	1	1
Mo.	8	-	25	-	6	2	28	-	15	3	8	20	-	1	7
N. Dak.	-	-	25	-	1	2	-	-	3	-	3	9	-	1	2
S. Dak.	-	-	-	-	-	-	4	-	1	-	13	1	-	-	-
Nebr.	4	-	-	-	-	-	9	-	-	-	-	4	-	-	-
Kans.	2	-	94	-	5	1	15	-	40	7	28	23	-	7	7
S. ATLANTIC	70	5	498	-	53	228	319	3	145	17	528	249	-	10	46
Del.	1	-	1	-	-	-	2	-	-	-	222	-	-	-	1
Md.	12	-	20	-	9	60	44	-	13	-	123	113	-	-	6
D.C.	-	-	-	-	2	5	4	-	-	-	-	1	-	-	-
Va.	14	2	35	-	24	22	52	2	29	3	23	8	-	-	2
W. Va.	4	-	2	-	-	33	3	1	37	8	18	2	-	-	9
N.C.	4	-	2	-	1	9	55	-	14	3	33	13	-	-	-
S.C.	5	-	274	-	-	-	28	-	11	-	5	-	-	-	3
Ga.	6	3	78	-	14	8	49	-	14	3	83	72	-	-	-
Fla.	24	-	86	-	3	91	82	-	27	-	21	40	-	10	25
E.S. CENTRAL	14	-	56	2§	7	2	95	-	23	2	27	17	-	2	2
Ky.	4	-	-	2§	5	-	23	-	5	-	2	3	-	2	2
Tenn.	-	-	54	-	1	1	34	-	15	1	7	5	-	-	-
Ala.	6	-	-	-	1	-	27	-	2	1	18	6	-	-	-
Miss.	4	-	2	-	-	1	11	-	1	-	-	3	-	-	-
W.S. CENTRAL	54	7	579	1	34	385	145	4	144	9	112	184	-	55	28
Ark.	-	-	276	-	2	-	20	-	7	1	8	12	-	-	1
La.	8	-	4	-	-	42	21	-	2	1	7	9	-	-	-
Okla.	8	3	37	-	2	1	19	N	N	7	69	112	-	-	1
Tex.	38	4	262	1†	30	342	85	4	135	-	28	51	-	55	26
MOUNTAIN	22	2	288	-	26	486	80	2	198	9	158	96	-	20	4
Mont.	-	-	-	-	8	137	8	-	5	-	7	5	-	2	-
Idaho	1	-	1	-	-	134	2	-	4	-	31	6	-	-	1
Wyo.	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-
Colo.	7	-	2	-	5	6	13	-	11	2	43	32	-	1	-
N. Mex.	2	2	31	-	7	4	6	N	N	-	16	9	-	-	2
Ariz.	7	-	247	-	6	205	16	2	164	6	36	20	-	2	1
Utah	2	-	6	-	-	-	9	-	10	1	21	24	-	12	-
Nev.	3	-	1	-	-	-	24	-	4	-	3	-	-	3	-
PACIFIC	258	35	501	4	52	238	347	9	222	31	215	242	5	197	128
Wash.	19	-	131	-	26	41	49	-	7	7	68	43	-	11	11
Oreg.	15	1	3	-	4	3	22	N	N	1	10	21	-	1	1
Calif.	223	34	348	4†	21	175	264	5	195	22	127	147	5	181	74
Alaska	-	-	-	-	-	-	10	-	6	-	2	27	-	-	1
Hawaii	1	-	19	-	1	19	2	4	14	1	8	4	-	4	41
Guam	1	-	4	-	1	11	1	-	4	-	-	-	1	3	2
P.R.	4	-	33	-	-	48	2	-	20	2	11	7	-	68	23
V.I.	-	U	-	U	-	10	-	U	13	U	-	-	U	-	-
Pac. Trust Terr.	-	-	-	-	-	-	1	2	7	-	-	-	1	1	-
Amer. Samoa	-	-	2	-	-	-	-	2	3	-	-	-	-	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 August 2, 1986 and August 3, 1985 (31st 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	15,013	15,748	10	12,684	12,494	69	154	423	3,203
NEW ENGLAND	297	326	1	390	424	-	9	5	3
Maine	15	9	1	30	34	-	-	-	-
N H	10	7	-	10	15	-	-	-	-
Vt	6	3	-	12	4	-	-	-	-
Mass	158	169	-	195	255	-	7	2	-
R I	16	11	-	27	35	-	-	2	1
Conn	92	127	-	116	81	-	2	1	2
MID ATLANTIC	2,186	2,056	-	2,563	2,310	1	14	13	378
Upstate N Y	99	144	-	380	392	-	2	5	47
N Y City	1,253	1,280	-	1,335	1,145	-	6	4	-
N J	408	404	-	456	317	1	5	1	12
Pa	426	228	-	392	456	-	1	3	319
E N CENTRAL	626	670	1	1,517	1,543	-	13	48	73
Ohio	83	88	-	261	284	-	2	46	5
Ind	69	63	-	163	193	-	2	-	12
Ill	329	340	-	665	672	-	2	1	23
Mich	111	140	1	354	301	-	5	1	16
Wis	34	39	-	74	93	-	2	-	17
W N CENTRAL	138	135	2	367	328	21	6	27	514
Minn	24	28	-	93	63	-	1	1	60
Iowa	6	15	2	31	42	1	-	1	117
Mo	76	66	-	182	154	17	5	12	57
N Dak	2	2	-	6	6	-	-	1	116
S Dak	2	4	-	16	18	2	-	5	101
Nebr	11	7	-	7	13	1	-	3	22
Kans	17	13	-	32	32	-	-	4	41
S ATLANTIC	4,340	4,564	-	2,443	2,547	8	20	195	739
Del	31	23	-	27	27	-	-	1	-
Md	264	241	-	171	236	2	5	21	374
D C	182	214	-	81	101	-	2	-	-
Va	221	177	-	206	222	2	5	25	111
W Va	14	10	-	69	66	-	2	7	18
N C	307	400	-	338	313	-	3	70	5
S C	403	473	-	320	324	-	-	52	36
Ga	637	801	-	373	413	3	-	18	115
Fla	2,281	2,225	-	858	845	-	3	1	80
E S CENTRAL	1,025	1,228	-	1,107	1,118	6	1	54	211
Ky	47	36	-	262	246	2	-	11	57
Tenn	369	366	-	317	325	3	-	23	97
Ala	327	406	-	347	347	1	-	12	56
Miss	282	420	-	181	200	-	1	8	1
W S CENTRAL	3,127	3,642	4	1,633	1,508	29	13	74	487
Ark	157	187	-	213	165	19	-	3	111
La	523	634	-	266	203	1	1	-	14
Okla	85	101	3	156	158	6	1	61	42
Tex	2,362	2,720	1	998	982	3	11	10	320
MOUNTAIN	354	429	1	292	330	3	8	7	453
Mont	6	3	-	16	46	-	1	4	158
Idaho	7	3	-	11	15	-	-	-	1
Wyo	-	6	-	-	5	-	-	1	209
Colo	87	102	1	22	41	-	1	2	4
N Mex	46	72	-	66	61	1	-	-	4
Ariz	150	217	-	140	134	-	3	-	72
Utah	10	5	-	20	6	1	2	-	1
Nev	48	21	-	17	22	1	1	-	4
PACIFIC	2,920	2,698	1	2,372	2,386	1	70	-	345
Wash	52	75	1	117	139	-	3	-	2
Oreg	65	54	-	83	82	-	-	-	-
Calif	2,777	2,524	-	2,018	1,983	-	63	-	335
Alaska	2	2	-	33	68	1	1	-	8
Hawaii	24	43	-	121	114	-	3	-	-
Guam	1	2	-	33	30	-	-	-	-
P R	535	486	-	173	206	-	4	-	28
V I	-	1	U	1	1	-	-	-	-
Pac Trust Terr	165	80	-	36	38	-	39	-	-
Amer Samoa	-	-	-	3	-	-	-	-	-

U Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending August 2, 1986 (31st Week)

Reporting Area	All Causes, By Age (Years): All Ages	≥65	45-64	25-44	1-24	<1	P&I** Total
NEW ENGLAND	596	404	119	43	13	17	41
Boston, Mass.	156	91	39	8	7	11	15
Bridgeport, Conn	37	26	7	3	-	1	4
Cambridge, Mass	25	18	6	1	-	-	1
Fall River, Mass	29	19	8	2	-	-	-
Hartford, Conn	63	38	16	6	1	2	5
Lowell, Mass.	25	19	2	3	1	-	-
Lynn, Mass.	17	10	5	2	-	-	3
New Bedford, Mass	27	24	2	1	-	-	-
New Haven, Conn	35	19	7	7	1	1	2
Providence, R.I	54	43	6	3	2	-	3
Somerville, Mass	4	3	1	-	-	-	-
Springfield, Mass	49	38	8	2	-	1	5
Waterbury, Conn	25	20	2	3	-	-	-
Worcester, Mass	50	36	10	2	1	1	3
MID ATLANTIC	2,625	1,725	509	227	68	96	123
Albany, N.Y	63	44	10	3	3	3	1
Allentown, Pa	22	15	7	-	-	-	1
Buffalo, N.Y	115	79	24	5	3	4	10
Camden, N.J	47	31	9	3	2	2	1
Elizabeth, N.J	27	23	2	1	-	1	1
Erie, Pa.†	42	34	7	1	-	-	3
Jersey City, N.J	47	34	5	5	1	2	3
N.Y. City, N.Y	1,356	871	258	141	37	49	59
Newark, N.J	73	37	11	14	3	8	4
Paterson, N.J.	24	9	9	3	2	1	-
Philadelphia, Pa §	351	240	79	24	3	5	17
Pittsburgh, Pa.†	89	49	24	6	1	9	1
Reading, Pa.	30	20	5	2	1	2	4
Rochester, N.Y	79	58	14	3	3	1	8
Schenectady, N.Y	44	34	6	3	1	-	5
Scranton, Pa.†	30	22	6	1	-	1	1
Syracuse, N.Y	100	63	20	5	5	7	2
Trenton, N.J.	35	27	5	3	-	-	-
Utica, N.Y.	14	10	3	-	1	-	-
Yonkers, N.Y	37	25	5	4	2	1	2
E.N. CENTRAL	2,310	1,506	507	160	65	72	92
Akron, Ohio	50	36	7	5	1	1	-
Canton, Ohio	38	28	7	1	1	1	2
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	158	109	38	7	1	3	17
Cleveland, Ohio	163	107	44	7	2	3	1
Columbus, Ohio	134	77	28	14	10	5	1
Dayton, Ohio	122	80	29	10	1	2	4
Detroit, Mich.	257	159	52	28	9	9	9
Evansville, Ind.	50	40	9	-	-	1	1
Fort Wayne, Ind.	49	32	10	3	3	1	5
Gary, Ind.	17	9	6	1	1	-	-
Grand Rapids, Mich.	62	39	19	2	2	-	7
Indianapolis, Ind.	153	90	38	11	6	8	1
Madison, Wis.	35	15	11	3	3	3	3
Milwaukee, Wis.	156	119	26	6	2	3	5
Peoria, Ill.	41	32	7	1	-	1	3
Rockford, Ill.	39	22	8	3	5	1	2
South Bend, Ind.	39	26	7	2	3	1	5
Toledo, Ohio	112	75	24	7	2	4	9
Youngstown, Ohio	71	49	12	4	3	3	1
W.N. CENTRAL	717	454	153	51	30	29	38
Des Moines, Iowa	67	53	10	3	1	-	3
Duluth, Minn	25	16	6	1	-	2	-
Kansas City, Kans.	49	27	16	2	3	1	2
Kansas City, Mo.	130	71	34	13	4	8	7
Lincoln, Nebr.	28	19	4	3	2	-	4
Minneapolis, Minn.	65	43	13	3	5	1	-
Omaha, Nebr.	67	37	13	7	5	5	3
St. Louis, Mo.	168	111	30	14	5	8	10
St. Paul, Minn.	56	37	16	1	1	1	-
Wichita, Kans.	62	40	11	4	4	3	9
S. ATLANTIC	1,264	766	253	137	44	62	41
Atlanta, Ga	173	90	40	28	4	11	1
Baltimore, Md	257	158	55	27	7	10	7
Charlotte, N.C	70	43	15	3	4	4	5
Jacksonville, Fla	100	73	16	5	5	1	2
Miami, Fla	82	45	19	8	4	6	2
Norfolk, Va	78	40	15	9	4	10	4
Richmond, Va	71	35	19	10	4	3	5
Savannah, Ga	48	36	4	5	2	1	3
St. Petersburg, Fla	89	71	10	4	-	4	2
Tampa, Fla	75	58	10	2	2	2	6
Washington, D.C	198	102	42	36	8	10	4
Wilmington, Del	23	15	8	-	-	-	-
E.S. CENTRAL	728	473	147	58	19	31	32
Birmingham, Ala	112	71	17	12	5	7	2
Chattanooga, Tenn	60	44	11	3	2	-	6
Knoxville, Tenn	76	46	13	9	2	6	6
Louisville, Ky	98	71	20	2	1	4	8
Memphis, Tenn	147	89	41	14	2	1	2
Mobile, Ala	65	39	15	5	1	5	2
Montgomery, Ala	38	27	7	-	1	3	1
Nashville, Tenn	132	86	23	13	5	5	5
W.S. CENTRAL	1,231	690	294	123	54	70	56
Austin, Tex	55	38	7	5	2	3	4
Baton Rouge, La	44	30	9	3	1	1	2
Corpus Christi, Tex	39	25	6	5	2	1	1
Dallas, Tex	205	104	54	25	10	12	6
El Paso, Tex	69	34	20	5	7	3	3
Fort Worth, Tex	80	42	21	7	5	5	2
Houston, Tex	304	153	85	44	13	9	12
Little Rock, Ark	66	37	16	3	4	6	6
New Orleans, La	124	69	26	10	1	18	-
San Antonio, Tex	149	92	34	11	6	6	10
Shreveport, La	31	21	5	1	-	4	6
Tulsa, Okla	65	45	11	4	3	2	4
MOUNTAIN	629	406	128	51	21	22	30
Albuquerque, N.Mex	75	50	13	5	3	3	3
Colo. Springs, Colo	38	17	14	5	1	1	4
Denver, Colo	143	92	28	9	4	10	6
Las Vegas, Nev	73	48	16	4	4	1	4
Ogden, Utah	23	16	2	3	1	1	2
Phoenix, Ariz	118	78	24	13	2	1	3
Pueblo, Colo	23	14	7	1	1	-	3
Salt Lake City, Utah	36	24	4	4	2	2	-
Tucson, Ariz	100	67	2[illegible]	7	3	3	5
PACIFIC	1,805	1,149	356	175	58	57	92
Berkeley, Calif	19	10	3	3	2	1	4
Fresno, Calif	85	55	18	6	3	3	8
Glendale, Calif	28	19	8	-	-	1	1
Honolulu, Hawaii	78	50	19	5	4	-	7
Long Beach, Calif	68	48	13	5	-	2	5
Los Angeles, Calif	503	299	105	67	16	6	10
Oakland, Calif	61	41	14	5	1	-	1
Pasadena, Calif §	25	22	2	1	-	-	-
Portland, Oreg.§	104	73	19	8	3	1	3
Sacramento, Calif	159	94	33	18	8	6	17
San Diego, Calif.	147	101	18	10	8	10	14
San Francisco, Calif	168	101	35	24	1	7	-
San Jose, Calif	127	73	30	9	4	11	10
Seattle, Wash.	140	99	22	10	2	7	7
Spokane, Wash	51	34	12	2	1	2	4
Tacoma, Wash	42	30	5	2	5	-	1
TOTAL	11,905 ††	7,573	2,466	1,025	372	456	545

* 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.

Lung Cancer — Continued

followed in 1966 with congressionally mandated warning labels on cigarette packages and in advertising. Smoking prevalence among adult males in the United States decreased from 52% before the Surgeon General's report to about 35% in 1983. Such considerable decreases in smoking prevalence have not been observed among females; the smoking prevalence among women was 34% in 1965 and 29% in 1983 (*4,5*). Although smoking prevalence rates for women have never been as high as those for men, their rate of decline is about half that for men. Unfortunately, the percentage of smokers who smoke 25 or more cigarettes per day was 13% in 1965 and 25% in 1980, suggesting that the bulk of smoking cessation may have been among lighter smokers. During the 1960s, smokers began to use filter-tipped cigarettes and, in the 1970s, low-tar and -nicotine cigarettes (*6*). Both the decrease in prevalence and the changing types of cigarettes smoked have been suggested as major reasons for declines in age-specific and age-adjusted lung cancer rates.

Reports from the Surgeon General's Office on the health consequences of smoking have continued for almost 2 decades and have led to formation of policy on smoking reduction as a major element of the health promotion and disease prevention objectives for 1990 (*7*). Recently, the National Cancer Institute defined cancer prevention and control objectives for the year 2000, which include the following risk-factor reduction objectives: (1) the proportion of adults who smoke should be reduced to 15% or less; and (2) the proportion of children and youth aged 12-18 years who smoke should be reduced to 3% or less. The attainment of these goals will result in more than a 40% reduction in deaths due to lung cancer than would be expected if the current rates of smoking prevalence continue into the next century.

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Standardization and Evaluation of the Clinical Usefulness of Mycobacterial Skin Test Antigens

CDC, assisted by selected physicians and health departments throughout the United States, recently completed a study to determine biologically equipotent doses for skin test antigens prepared from several species of nontuberculous mycobacteria (NTM). This standardization study was planned as a first step in evaluating the clinical and epidemiologic usefulness of the NTM antigens. In the past, these antigens were formulated on a protein-weight basis equivalent to intermediate strength (5 TU) tuberculin-purified protein derivative (PPD) (0.1 μg/dose) and contained no stabilizer to reduce losses from adsorption to the container.

Mycobacterial Skin Test — Continued

To standardize the individual NTM antigen, consenting patients with compatible signs and symptoms and bacteriologically confirmed NTM disease received four skin tests of differing strengths of the antigen prepared from the homologous species of *Mycobacterium* and stabilized by Tween-80®. The skin tests were administered and measured by one experienced nurse, and the amount of induration was measured at 48 hours. Dose-response curves for each antigen were used to estimate the concentration bioequivalent to 5 TU of PPD-S (international standard tuberculin), i.e., the dose expected to produce a mean reaction of 16.0 mm induration, which is the mean reaction to 5 TU of PPD-S observed among a series of tuberculosis cases. From these data, standardized doses of PPD-B (*M. avium* complex), PPD-Y (*M. kansasii*), PPD-G (*M. scrofulaceum*), and PPD-platy (*M. marinum*) have now been prepared (Table 1).

Reported by J Shinnick, Bucks County Health Dept, Pennsylvania; LB Reichman, MD, UMDNJ, New Jersey Medical School, Newark; E Wolinsky, MD, Cleveland Metropolitan General Hospital, Cleveland, Ohio; P Smith, MD, SUNY Health Science Center at Brooklyn, R Dattwyler, MD, SUNY Health Science Center at Stoneybrook, New York; J Landis, MD, Bay State Medical Center, Springfield, Massachusetts; R Ratard, MD, New Orleans, Louisiana; DP Schlueter, MD, Medical College of Wisconsin, Milwaukee; RJ Wallace, Jr, MD, University of Texas Health Science Center, Tyler, C Ahn, MD, Dallas; CR Horsburgh, Jr, MD, University of Colorado Health Science Center, Denver; M Marks, MD, University of Oklahoma Health Science Center, Oklahoma City; R Hayes, MD, New Mexico Health Svcs Div, Santa Fe; Respiratory Disease Br, Div of Bacterial Diseases, Center for Infectious Diseases, Div of Tuberculosis Control, Center for Prevention Svcs, CDC.

Editorial Note: A battery of standardized skin test antigens, including tuberculin and those prepared from NTM, has several potential uses: distinguishing mycobacterial from nonmycobacterial diseases; distinguishing *M. tuberculosis* from NTM infections and diseases; and distinguishing among specific NTM infections. This diagnostic potential could not be adequately assessed using the nonstandardized and nonstabilized preparations.

CDC is now beginning two studies to determine the clinical usefulness of the standardized NTM antigens. Adults with suspected mycobacterial pulmonary disease and children with chronic cervical lymphadenitis will be offered a battery of four standardized skin test antigens: PPD-B, PPD-Y, PPD-G, and PPD-tuberculin. The test results will be compared to the mycobacterial species subsequently isolated from the patients to determine the operational characteristics of these tests, e.g., sensitivity, specificity, and predictive value. Physicians interested in participating in these studies should contact CDC's Tuberculosis Clinical Research Branch at (404) 329-2530.

TABLE 1. Doses of nontuberculous mycobacterial antigens biologically equivalent to 5-TU PPD-S tuberculin in patients with disease due to homologous species

Antigen	Homologous mycobacterium	Persons tested	Dose bioequivalent to 5-TU PPD-S (μg/0.1 ml)
PPD-B	*M. avium* complex	47	0.9468
PPD-Y	*M. kansasii*	46	3.0334
PPD-G	*M. scrofulaceum*	9	0.2603
PPD-platy	*M. marinum*	19	0.2185

Enterovirus Surveillance — United States, 1986

Reports of 54 nonpolio enterovirus (NPEV) isolates identified in March through May 1986 were received from state virology laboratories. Echovirus 4 was isolated most frequently (18/54), followed by coxsackievirus B5 (12 isolates), coxsackievirus B3 (six), coxsackievirus B2 (five), and coxsackievirus B4, echovirus 7, and echovirus 11 (three each). In 1985, the six most common NPEV isolates were echovirus 11 (217 of the 1,817 isolates), echovirus 21 (215), echovirus 6 and 7 (187 each), coxsackievirus B2 (134), and coxsackievirus B4 (113). These latter six NPEV types represented 58% of the total enterovirus isolates reported for 1985.

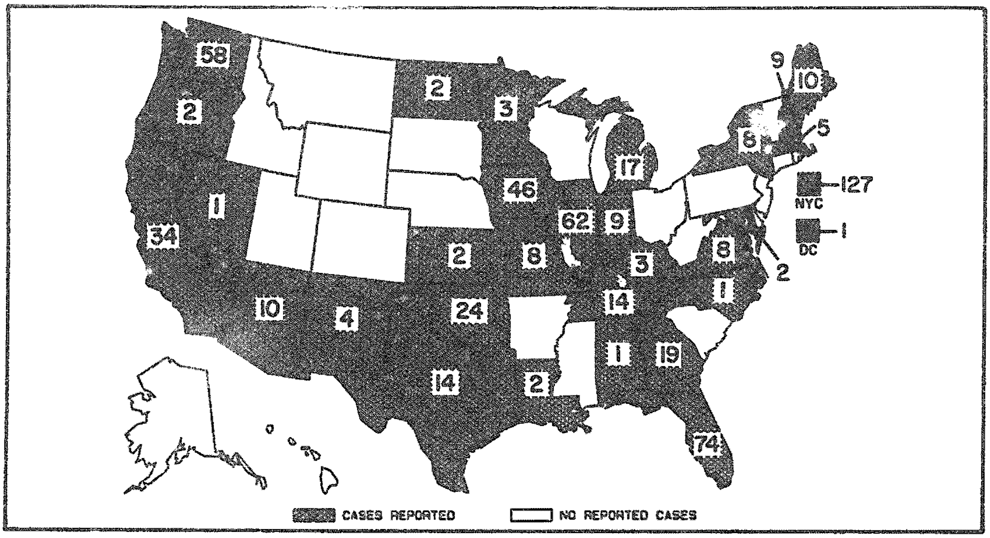
Reported by state virology laboratory directors; Respiratory and Enterovirus Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: A retrospective study of CDC's NPEV surveillance data shows that isolates from March through May predict the types likely to be isolated in July through December, which includes the peak enterovirus season (*1*). The six most common isolates in March through May accounted for an average of 59% of the isolates detected in July through December each year. In 1985, they accounted for 57% of the isolates in July through December. The reports of early 1986 isolates suggest that echoviruses 4, 7, and 11 and coxsackieviruses B2, B3, B4, and B5 are likely to be common NPEV isolates this year. All of the top six isolates reported so far this year, and five of the top six isolates reported in 1985, were in the top 15 most frequent isolates for 1970-1983 (*1*).

Reference

1. Strikas RA, Anderson LJ, Parker RA. Temporal and geographic patterns of isolates of nonpolio enterovirus in the United States, 1970-1983. J Infect Dis 1986;153:346-51.

FIGURE I. Reported measles cases — United States, weeks 27-30, 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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