

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

- 321 Recreational Boating Fatalities — Ohio, 1983-1986
- 324 Update: Creutzfeldt-Jakob Disease in a Patient Receiving a Cadaveric Dura Mater Graft
- 325 Potential Increased Demand for Lead Testing as a Result of Recent HUD Regulations
- 331 Tuberculosis Among Asians/Pacific Islanders — United States, 1985

Current Trends

Recreational Boating Fatalities — Ohio, 1983-1986

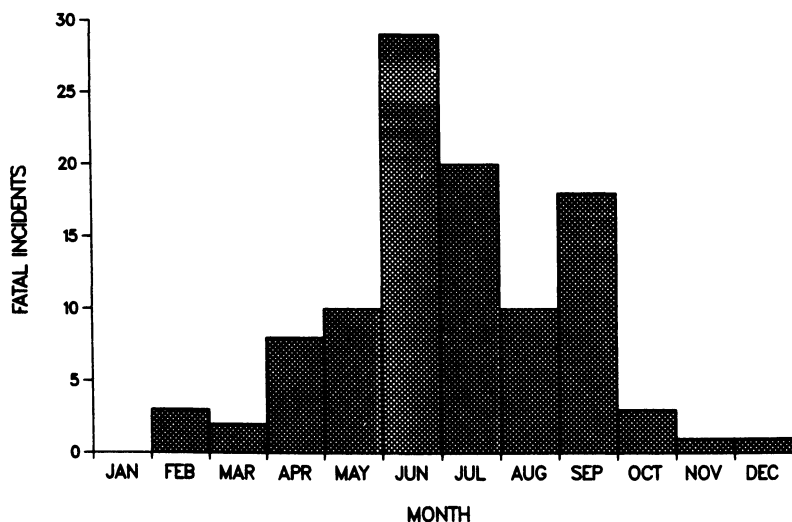
Currently, more than 60 million people engage in recreational (noncommercial) boating activities in the United States, compared with 45 million in 1975 (1). Because of the potential for death associated with the sport, the Ohio Department of Health reviewed data on recreational boating-related fatalities in Ohio for the 4-year period 1983-1986. Analysis was based on data from the Division of Watercraft's Boating Accident Reporting (BAR) system (2). This system requires the operator of a numbered vessel involved in a boating mishap (incident) to file a report if the incident results in: 1) loss of life, 2) personal injury requiring medical treatment beyond first aid, 3) complete loss of the vessel, or 4) damage to the vessel and other property exceeding \$200.00. Only incidents resulting in loss of life were analyzed because reporting appeared to be most thorough for this category.

There were 107 recreational boating incidents resulting in 124 fatalities during the years 1983-1986. Twenty-six incidents were reported in 1983; 29, in 1984; 25, in 1985; and 27, in 1986. One hundred (93%) of these involved only one boat. The remaining seven were two-boat collisions involving more than one boat operator. For collisions, data were analyzed only for the operator of the boat in which the fatality occurred.

Most fatal incidents (69%) occurred on Friday, Saturday, or Sunday, and 73% occurred between June 1 and September 30 (Figure 1). Fatal incidents occurred most often during the afternoon and early evening (56% between noon and 8:00 p.m.), while 9% occurred between midnight and 4:00 a.m. Although fatal incidents occurred in 50 of Ohio's 88 counties during the 4-year period, 44 of 107 incidents (41%) occurred within the jurisdiction of the eight counties bordering Lake Erie.

The boat operators involved ranged from 14 to 74 years of age; the mean age was 36.3 years. Operators had varied boating experience, but over 50% had >100 hours of experience on the water (Table 1). Alcohol use was noted in eight (7.5%) of the 107 reports. This information generally came from the investigating officials' reports and was based either on the testimony of witnesses or on direct physical evidence, such as the presence of alcoholic beverage containers. Confirmatory evidence, such as blood-alcohol levels, was usually not available.

The greatest number of fatalities involved motorboats (Table 2). However, fatality rates were higher for incidents involving smaller boats, such as canoes and rowboats.

*Boating Fatalities — Continued***FIGURE 1. Fatal boating incidents, by month — Ohio, 1983-1986****TABLE 1. Recreational boating fatalities, by operator experience — Ohio, 1983-1986**

Operator Experience	Fatal Events	
	No.	(%)
<20hrs.	21	(26.6)
20-100hrs.	16	(20.3)
101-500hrs.	19	(24.0)
>500hrs.	23	(29.1)
Unknown	28	—
Total	107	(100.0)

TABLE 2. Recreational boating fatalities, by type of boat — Ohio, 1983-1986

Boat Type	Registered Boats*	No. Fatal Incidents	No. Fatalities	Death Rate†
Motorboats (Open, Cabin, Sail)	983,600	60	70	7.1
Sail Only	86,018	4	5	5.8
Rowboats	89,647	13	13	14.5
Canoes/Kayaks	168,148	17	18	10.7
Miscellaneous	59,281	11	16	27.0
Unknown	—	2	2	—
Total	1,386,694	107	124	8.8[‡]

*Totals for 1983-1986.

†Per 100,000 registered boats.

‡Death rate excludes fatalities for which type of boat involved was unknown.

Boating Fatalities – Continued

The highest overall fatality rate was in the miscellaneous group, which includes inflatable boats and rafts, small plastic vessels, jet skis, houseboats or pontoon boats, and vessels not otherwise classified.

Nine different types of incidents led to fatalities. Capsizing accounted for 42% of them, and falls overboard accounted for 29%. Activities at the time of incident included cruising (38%), drifting (17%), and fishing (15%). One death was associated with water skiing, and none involved racing.

Reported by: JK Hopewell, Div of Watercraft, Ohio Dept of Natural Resources; T Halpin, MD, MPH, State Epidemiologist, Ohio Dept of Health. Div of Field Svcs, Epidemiology Program Office; Div of Injury Epidemiology and Control, Center for Environmental Health, CDC.

Editorial Note: Sports and recreational injuries are an important source of serious injuries and death in the United States. Almost 90% of all recreational boating deaths result from drowning, with the remaining 10% attributable to falls, burns, and other causes (3). In 1983, approximately 1,100 drownings involved recreational boats (4). In 1985, 1,116 deaths were associated with recreational boats (2). With the intention of increasing the public's awareness of boating safety and available resources, the National Safe Boating Council* sponsors National Safe Boating Week each year. This year it is the week of June 7-13.

Studies suggest that boat-operator experience and courses on boating safety may reduce the risk of mishaps (1,2). In the Ohio study, nearly one-third of the operators reported <20 hours of boating experience. Neither boating courses nor boating experience, however, have been formally evaluated for their effectiveness in preventing boating mishaps and injuries.

Unlike motor-vehicle operators, recreational boaters are generally not required to be licensed, and many have received no formal training in boat operation and safety procedures (5). However, operators of recreational boats are required to be familiar with laws and regulations, and enforcement of these laws can play an important role in preventing boating injuries.

Previous reports have identified alcohol use as a major contributing factor to deaths associated with recreational boating (1,3,5,6). An estimated one-third to two-thirds of recreational boating fatalities each year may involve alcohol (5). The low rates of apparent alcohol involvement in Ohio (7.5%) may be due to underreporting. Since 1970, Ohio has prohibited anyone under the influence of alcohol from operating a vessel. The law was expanded in 1986 to permit enforcement officials to require blood-alcohol testing of boat operators if there are reasonable grounds to believe they are under the influence of alcohol. While most states have a law prohibiting persons under the influence of alcohol from operating a vessel, less than half of these laws define legal intoxication. In addition, enforcement of these laws varies from state to state. The Ohio law has not been evaluated for its effectiveness in reducing the number of deaths and incidents associated with alcohol use.

The U.S. Coast Guard, which is responsible for overseeing the BAR system, estimates that it receives reports on nearly all fatal boating incidents. However, it also estimates that <10% of nonfatal incidents are reported (2). Information contained in these reports is provided primarily by the boat operator and is supplemented by the investigating state or local official.

*The U.S. Coast Guard has a toll-free Boating Safety Hotline: (800)368-5647. Information about National Safe Boating Week or the Council can be obtained by writing: Secretary, National Safe Boating Council, Inc., c/o Commandant (G-BBS-4), U.S. Coast Guard Headquarters, Washington, D.C. 20593.

Boating Fatalities — Continued

Because of limited data, this study did not evaluate information about the victim or about the operators and vessels not involved in fatalities. Ohio is one of the few states requiring registration of all watercraft. However, certain types of boats, such as canoes and rubber rafts, may be underregistered, and the recreational boating fatality rates may be disproportionately high for these.

Potential prevention efforts aimed toward reducing recreational boating mishaps and deaths include: 1) a licensing procedure for recreational boat operators similar to that for motor vehicle operators; 2) completion of an approved boating safety course prior to boat registration; 3) improved enforcement of current laws, such as those restricting alcohol use and requiring personal flotation devices; 4) stiffer penalties for operating under the influence of alcohol; and 5) courses in swimming and rescue procedures.

References

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2. U.S. Coast Guard. Boating statistics 1985. Washington, DC: US Department of Transportation, 1986; publication no. COMDTINST M16754.1G.
3. Baker SP, O'Neill B, Karpf RS. The injury fact book. Lexington, Massachusetts: Lexington Books, 1984.
4. National Safety Council. Accident facts. Chicago: National Safety Council, 1986.
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6. National Safety Council. Accident facts. Chicago: National Safety Council, 1984.

Epidemiologic Notes and Reports

Update: Creutzfeldt-Jakob Disease in a Patient Receiving a Cadaveric Dura Mater Graft

CDC and the Food and Drug Administration (FDA) have investigated a case of Creutzfeldt-Jakob disease (CJD) in a 28-year-old woman who died 22 months after receiving a lyophilized, irradiated human cadaveric dura mater graft. They found that the most likely source of the disease was the graft, LYODURA® (Lot 2105), produced by B. Braun Melsungen AG, Federal Republic of Germany (1). The CDC/FDA investigators were unable to obtain the identity of the donor of the implicated graft or to trace the disposition of other tissues from this donor. A representative of the producer of LYODURA® reported that the company does not maintain records identifying donors and mixes dura from multiple donors during processing of a single lot. As a result of this investigation, FDA issued a Safety Alert on April 28, 1987, recommending disposal of all LYODURA® from packages bearing a 4-digit lot number beginning with the digit "2" (the code for material packaged in 1982) as well as all unmarked LYODURA® (2).

CDC conducted a telephone survey of 10 other known producers of dura mater used in the United States. All reported maintaining records that allow identification and tracing of each donor of a particular lot of product and of the recipient institution. In addition, it was found that these producers process dura from each donor individually so that there is no contact with or co-mingling of dura from different donors.

Creutzfeldt-Jakob Disease — Continued

Reported by: Center for Devices and Radiological Health, Food and Drug Administration. Hospital Infections Program, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: Because of the differences between the processing of LYODURA® and of other products, LYODURA® may carry a higher risk of transmitting CJD than other dura mater products used in the United States. As indicated in the FDA Safety Alert, current procedures used to sterilize human dura mater are not adequate to inactivate the CJD agent, and even the most stringent donor screening cannot exclude asymptomatic prepatent carriers of CJD (2). Thus, the use of any human dura mater product carries some risk of transmission of CJD, and procedures that minimize the risk are important. Alternatives to these products, such as autologous fascia or synthetic materials, are available.

The potential for human tissue products to transmit infectious agents has been documented for several procedures other than this single case in a recipient of a dura mater graft. There have been reports of presumed transmission of rabies and CJD by corneal transplantation (3,4), of human immunodeficiency virus (HIV) by organ transplantation (5), and of hepatitis B and HIV by artificial insemination (6,7).

The methods of production and distribution of human tissue products are not routinely subjected to FDA inspection and approval. Health care providers are urged to use human tissue products that have been handled according to strict guidelines such as those established by the American Association of Tissue Banks (8). In addition, hospitals should maintain records so that infections associated with human tissue products can be linked with specific lot numbers of these products.

References

1. CDC. Rapidly progressive dementia in a patient who received a cadaveric dura mater graft. *MMWR* 1987;36:49-50, 55.
2. Food and Drug Administration. FDA safety alert: possibly contaminated dura mater transplant material. Rockville, Maryland: US Department of Health and Human Services, Public Health Service, April 28, 1987.
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4. Duffy P, Wolf J, Collins G, DeVoe AG, Streeten B, Cowen D. Possible person-to-person transmission of Creutzfeldt-Jakob disease [Letter]. *N Engl J Med* 1974;290:692-3.
5. CDC. Human immunodeficiency virus infection transmitted from an organ donor screened for HIV-antibody—North Carolina. *MMWR* 1987;36:306-8.
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Current Trends**Potential Increased Demand for Lead Testing
As a Result of Recent HUD Regulations**

A recent U.S. Department of Housing and Urban Development (HUD) regulation may increase the demand for lead screening in state and local health departments. A tenant who had lived in HUD-supported housing brought suit against HUD as a result of lead poisoning acquired by a child from leaded paint within the housing unit. The

Lead Testing — Continued

court ruled in favor of the plaintiff. The case was appealed, and a higher court directed HUD to publish rules and regulations for the systematic inspection and abatement of the lead paint hazard in housing owned or supported by HUD. The rules governing public housing (1) and the regulations for eliminating lead-based paint hazards in Federal Housing Authority (FHA) single family and multifamily housing were subsequently published in the Federal Register (2).

The new policy requires HUD to notify tenants of low-income public housing projects owned by public housing authorities (PHAs) (which are supported by HUD) and constructed before 1978 that the property may contain lead-based paint. Tenants must also be informed of the necessary precautions for avoiding poisoning from lead-based paint, of the symptoms of and treatment for lead poisoning, and of the need for blood-lead screening for children <7 years of age as well as where to go for screening.

(Continued on page 331)

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

Disease	21st Week Ending			Cumulative, 21st Week Ending		
	May 30, 1987	May 24, 1986	Median 1982-1986	May 30, 1987	May 24, 1986	Median 1982-1986
Acquired Immunodeficiency Syndrome (AIDS)	81	282	N	7,007	5,047	N
Aseptic meningitis	89	95	92	1,846	1,775	1,638
Encephalitis: Primary (arthropod-borne & unspc)	12	13	16	314	313	361
Post-infectious	5	4	4	32	45	45
Gonorrhea: Civilian	11,154	16,008	16,008	315,914	333,189	334,973
Military	224	380	406	6,675	6,417	8,889
Hepatitis: Type A	400	495	439	9,910	8,950	8,950
Type B	400	548	433	10,068	10,238	9,854
Non A, Non B	57	80	N	1,227	1,412	N
Unspecified	51	92	120	1,316	1,991	2,186
Legionellosis	13	9	N	303	230	N
Leprosy	5	5	6	84	112	109
Malaria	18	24	18	289	306	298
Measles: Total*	141	196	82	1,975	3,037	1,264
Indigenous	134	189	N	1,731	2,909	N
Imported	7	6	N	244	123	N
Meningococcal infections: Total	55	47	50	1,450	1,310	1,393
Civilian	55	47	48	1,449	1,308	1,379
Military	-	-	1	1	2	6
Mumps	234	211	68	7,964	1,712	1,712
Pertussis	36	95	29	683	1,063	715
Rubella (German measles)	13	35	30	169	238	339
Syphilis (Primary & Secondary): Civilian	432	397	548	13,206	10,275	11,351
Military	1	2	7	73	86	142
Toxic Shock syndrome	5	11	N	121	149	N
Tuberculosis	315	444	449	7,936	8,103	8,311
Tularemia	2	1	7	42	26	47
Typhoid Fever	8	4	3	115	101	132
Typhus fever, tick-borne (RMSF)	15	23	13	62	91	98
Rabies, animal	91	102	116	1,992	2,280	2,280

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1987		Cum. 1987
Anthrax	-	Leptospirosis	8
Botulism: Foodborne	3	Plague	2
Infant	19	Poliomylitis, Paralytic	-
Other	-	Psittacosis	34
Brucellosis (Minn. 1, Mo. 1, Okla. 2)	41	Rabies, human	-
Cholera	-	Tetanus (Ala. 1)	11
Congenital rubella syndrome	3	Trichinosis	24
Congenital syphilis, ages < 1 year	-	Typhus fever, flea-borne (endemic, murine)	10
Diphtheria	1		

*Five of the 141 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 May 30, 1987 and May 24, 1986 (21st Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis(Viral), by type				Legionel- losis	Leprosy
			Primary	Post-in- fectious			A	B	NA,NB	Unspeci- fied		
					Cum. 1987	1987					Cum. 1987	Cum. 1986
UNITED STATES	7,007	89	314	32	315,914	333,189	400	400	57	51	13	84
NEW ENGLAND	296	4	13	1	10,524	7,168	7	23	-	1	1	6
Maine	11	-	1	-	314	383	-	-	-	-	-	-
N.H.	8	-	-	-	181	195	-	-	-	-	-	2
Vt.	4	-	2	-	80	106	-	-	-	-	-	-
Mass.	179	-	6	-	3,908	3,246	4	13	-	1	1	3
R.I.	24	2	3	1	854	734	2	1	-	-	-	-
Conn.	70	2	1	-	5,187	2,504	1	9	-	-	-	1
MID. ATLANTIC	2,135	3	38	3	49,101	55,442	4	9	2	-	-	5
Upstate N.Y.	298	3	15	2	6,530	6,412	4	9	2	-	-	-
N.Y. City	1,198	-	4	-	25,479	31,876	-	-	-	-	-	5
N.J.	457	-	4	-	6,435	7,314	-	-	-	-	-	-
Pa.	182	-	15	1	10,657	9,840	-	-	-	-	-	-
E.N. CENTRAL	456	13	79	2	44,797	45,245	27	45	1	4	2	2
Ohio	71	7	34	2	9,794	10,378	2	23	-	-	1	1
Ind.	32	1	3	-	3,834	4,911	-	4	-	2	1	-
Ill.	236	1	9	-	13,210	11,472	8	4	1	-	-	-
Mich.	82	4	27	-	14,301	13,592	17	14	-	2	-	-
Wis.	35	-	6	-	3,658	4,892	-	-	-	-	-	1
W.N. CENTRAL	159	2	15	-	13,003	14,564	27	19	5	-	3	-
Minn.	44	-	9	-	2,047	2,104	8	8	2	-	-	-
Iowa	11	-	1	-	1,229	1,488	-	-	-	-	-	-
Mo.	71	-	-	-	6,629	7,464	12	9	2	-	2	-
N. Dak.	1	-	-	-	123	127	-	-	-	-	-	-
S. Dak.	1	-	-	-	250	301	1	-	1	-	1	-
Nebr.	10	2	3	-	796	935	6	2	-	-	-	-
Kans.	21	-	2	-	1,929	2,145	-	-	-	-	-	-
S. ATLANTIC	1,150	14	45	13	82,930	83,195	18	102	15	12	2	5
Del.	9	3	1	1	1,233	1,354	1	1	-	-	-	-
Md.	152	1	7	3	9,811	9,942	2	8	4	1	1	2
D.C.	174	-	-	-	5,659	6,645	1	1	-	-	-	-
Va.	86	5	18	1	6,106	6,931	3	15	-	4	-	-
W. Va.	7	-	5	-	617	952	-	1	-	-	-	-
N.C.	48	-	8	-	12,591	13,875	2	20	2	1	-	-
S.C.	30	-	-	-	6,822	7,475	-	11	-	-	-	1
Ga.	173	-	-	-	14,349	12,445	-	22	4	2	-	-
Fla.	471	5	6	8	25,742	23,576	9	23	5	4	1	2
E.S. CENTRAL	77	4	18	3	23,426	27,709	4	9	1	-	-	-
Ky.	16	-	9	1	2,394	3,204	2	1	-	-	-	-
Tenn.	2	1	3	-	8,157	10,892	1	3	-	-	-	-
Ala.	51	2	6	-	7,513	7,839	-	3	-	-	-	-
Miss.	8	1	-	2	5,362	5,774	1	2	1	-	-	-
W.S. CENTRAL	664	16	31	2	36,544	41,432	61	46	6	11	4	4
Ark.	18	-	-	1	3,556	3,794	-	-	-	-	-	-
La.	100	-	5	-	6,795	7,208	-	-	-	-	-	-
Okl.	29	2	9	1	3,957	4,873	2	4	1	-	3	-
Tex.	517	14	17	-	22,236	25,557	59	42	5	11	1	4
MOUNTAIN	178	7	10	1	8,510	10,009	82	27	9	6	-	-
Mont.	2	1	-	-	197	269	1	2	1	1	-	-
Idaho	3	-	-	-	309	320	5	4	-	-	-	-
Wyo.	2	-	-	-	168	239	4	1	-	-	-	-
Colo.	81	1	1	-	1,837	2,646	13	3	2	4	-	-
N. Mex.	15	-	1	-	914	1,046	8	2	1	-	-	-
Ariz.	37	4	7	1	2,998	3,383	41	12	5	1	-	-
Utah	12	-	-	-	267	434	9	1	-	-	-	-
Nev.	26	1	1	-	1,820	1,672	1	2	-	-	-	-
PACIFIC	1,892	26	65	7	47,079	48,425	170	120	18	17	1	62
Wash.	99	-	6	1	3,333	3,840	32	27	4	2	1	2
Oreg.	49	-	-	-	1,778	1,913	12	20	1	-	-	-
Calif.	1,699	26	56	6	40,810	40,904	124	70	13	13	-	49
Alaska	6	-	2	-	754	1,220	2	1	-	2	-	-
Hawaii	39	-	1	-	404	548	-	2	-	-	-	11
Guam	-	-	-	-	77	49	-	-	-	-	-	-
P.R.	48	1	-	1	909	902	-	1	-	-	-	5
V.I.	-	-	-	-	96	87	-	-	-	-	-	-
Pac. Trust Terr.	-	-	-	-	186	121	-	-	-	-	-	38
Amer. Samoa	-	-	-	-	38	14	-	-	-	-	-	-

N: Not notifiable

U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending May 30, 1987 and May 24, 1986 (21st Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin- gococcal infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
		Cum. 1987	1987	Cum. 1987	1987	Cum. 1987	Cum. 1986	1987	Cum. 1987	1987	Cum. 1987	Cum. 1986	1987	Cum. 1987	Cum. 1986
UNITED STATES	289	134	1,731	7	244	3,037	1,450	234	7,964	36	683	1,063	13	169	238
NEW ENGLAND	20	3	76	4	107	16	128	2	18	1	18	60	-	1	5
Maine	-	-	3	-	-	-	6	-	-	-	1	2	-	1	-
N.H.	1	1	57	-	88	-	13	-	6	-	2	24	-	-	1
Vt.	-	1	2	2	12	-	8	-	2	-	3	2	-	-	1
Mass.	9	-	1	-	4	15	63	-	1	-	4	16	-	-	-
R.I.	4	-	-	-	1	1	11	-	2	-	-	1	-	-	2
Conn.	6	1	13	2†	2	-	27	2	7	1	8	15	-	-	1
MID. ATLANTIC	26	57	332	1	40	1,025	165	6	128	7	96	97	-	7	26
Upstate N.Y.	11	-	11	-	8	17	59	4	56	6	74	66	-	5	18
N.Y. City	3	57	295	1†	12	176	11	-	-	-	-	3	-	1	5
N.J.	7	-	6	-	3	821	34	-	35	1	5	6	-	1	3
Pa.	5	-	20	-	17	11	61	2	37	-	17	22	-	-	-
E.N. CENTRAL	11	3	168	-	16	604	180	89	4,560	-	77	177	-	19	28
Ohio	5	-	1	-	4	-	67	3	63	-	26	67	-	-	-
Ind.	2	-	-	-	-	-	20	15	605	-	1	19	-	-	-
Ill.	1	3	81	-	12	366	28	66	2,216	-	5	21	-	18	24
Mich.	3	-	23	-	-	-	53	5	591	-	25	20	-	1	3
Wis.	-	-	63	-	-	234	12	-	1,085	-	20	50	-	-	1
W.N. CENTRAL	10	13	113	-	13	145	68	74	1,051	-	38	50	-	1	7
Minn.	5	7	7	-	11	26	23	29	615	-	8	20	-	-	-
Iowa	2	-	-	-	-	1	3	31	308	-	6	9	-	1	-
Mo.	3	6	106	-	1	9	19	1	15	-	13	4	-	-	1
N. Dak.	-	-	-	-	-	14	1	-	6	-	1	2	-	-	-
S. Dak.	-	-	-	-	-	-	1	13	64	-	2	3	-	-	-
Nebr.	-	-	-	-	-	1	2	-	2	-	-	2	-	-	-
Kans.	-	-	-	-	1	94	19	-	41	-	8	10	-	-	6
S. ATLANTIC	51	-	44	-	5	386	244	37	168	10	149	433	-	11	1
Del.	1	-	-	-	-	1	4	-	-	-	-	210	-	1	-
Md.	11	-	-	-	-	25	22	-	13	1	3	86	-	2	-
D.C.	6	-	-	-	1	-	5	-	-	-	-	-	-	-	-
Va.	10	-	-	-	-	33	39	3	51	1	34	13	-	1	-
W. Va.	-	-	-	-	-	2	-	3	23	3	32	5	-	-	-
N.C.	7	-	1	-	1	2	31	-	4	1	59	17	-	-	-
S.C.	3	-	-	-	-	301	25	-	11	-	-	7	-	-	-
Ga.	2	-	-	-	-	8	48	30	36	4	17	69	-	1	-
Fla.	11	-	43	-	3	14	70	1	30	-	4	26	-	6	1
E.S. CENTRAL	4	-	2	-	-	3	66	9	1,074	1	10	18	-	2	1
Ky.	1	-	-	-	-	-	12	-	202	-	1	1	-	2	1
Tenn.	1	-	-	-	-	1	23	9	855	1	2	5	-	-	-
Ala.	-	-	-	-	-	-	25	-	17	-	5	12	-	-	-
Miss.	2	-	2	-	-	2	6	-	-	-	2	-	-	-	-
W.S. CENTRAL	20	35	170	1	2	415	100	7	628	1	42	30	3	5	49
Ark.	1	-	-	-	-	282	10	-	281	-	2	2	1	2	-
La.	-	-	-	-	-	-	10	-	185	-	9	4	-	-	-
Okla.	3	-	-	-	1	10	15	N	N	1	31	24	-	-	-
Tex.	16	35	170	1†	1	123	65	7	162	-	-	-	2	3	49
MOUNTAIN	10	14	336	-	14	204	52	6	148	1	61	98	-	15	5
Mont.	-	10	74	-	1	1	-	-	4	1	3	5	-	-	-
Idaho	1	-	-	-	-	-	4	-	3	-	18	26	-	1	-
Wyo.	-	-	-	-	2	-	-	-	-	-	2	1	-	1	-
Colo.	1	-	5	-	-	6	16	-	23	-	17	22	-	-	-
N. Mex.	-	2	254	-	9	20	3	N	N	-	3	9	-	-	-
Ariz.	6	2	3	-	1	177	20	5	110	-	17	24	-	4	1
Utah	-	-	-	-	-	-	6	1	6	-	1	11	-	9	1
Nev.	2	-	-	-	1	-	3	-	2	-	-	-	-	-	3
PACIFIC	137	9	490	1	47	239	447	4	189	15	192	100	10	108	116
Wash.	8	-	1	-	-	52	56	-	28	1	27	38	-	-	3
Oreg.	4	-	2	-	33	2	18	N	N	-	14	8	-	1	-
Calif.	122	9	487	1†	10	165	364	3	144	4	78	51	6	75	111
Alaska	3	-	-	-	-	-	4	-	5	-	2	1	-	-	-
Hawaii	-	-	-	-	4	20	5	1	12	10	71	2	4	32	2
Guam	-	-	2	-	-	3	3	-	4	-	-	-	-	1	2
P.R.	1	-	404	-	-	18	2	-	5	1	12	5	1	2	58
V.I.	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-
Pac. Trust Terr.	-	-	1	-	-	-	1	-	4	-	1	-	-	1	-
Amer. Samoa	-	-	-	-	-	1	-	-	3	-	-	-	-	-	-

*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 May 30, 1987 and May 24, 1986 (21st Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic- shock Syndrome	Tuberculosis		Tula- remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1987	Cum. 1986	1987	Cum. 1987	Cum. 1986	Cum. 1987	Cum. 1987	Cum. 1987	Cum. 1987
UNITED STATES	13,206	10,275	5	7,936	8,103	42	115	62	1,992
NEW ENGLAND	208	203	-	259	269	-	9	1	2
Maine	1	13	-	15	25	-	-	-	1
N.H.	2	7	-	5	10	-	-	-	-
Vt.	1	6	-	4	9	-	-	-	-
Mass.	103	99	-	142	124	-	7	1	-
R.I.	5	13	-	23	19	-	1	-	1
Conn.	96	65	-	70	82	-	1	-	-
MID. ATLANTIC	2,331	1,436	-	1,432	1,641	-	12	1	155
Upstate N.Y.	89	69	-	225	251	-	5	-	11
N.Y. City	1,619	804	-	695	787	-	-	-	-
N.J.	268	286	-	250	312	-	7	-	4
Pa.	355	277	-	262	291	-	-	1	140
E.N. CENTRAL	385	409	2	937	1,005	1	17	7	63
Ohio	48	53	2	183	170	1	6	7	-
Ind.	25	50	-	90	119	-	4	-	7
Ill.	212	222	-	360	454	-	4	-	25
Mich.	75	60	-	268	212	-	2	-	8
Wis.	25	24	-	36	50	-	1	-	23
W.N. CENTRAL	58	104	1	228	238	11	7	1	425
Minn.	6	18	-	60	55	-	2	-	104
Iowa	9	5	-	10	21	3	2	-	132
Mo.	27	55	-	121	121	7	3	1	19
N. Dak.	-	2	-	1	4	-	-	-	56
S. Dak.	5	1	-	9	10	-	-	-	76
Nebr.	7	8	1	11	4	-	-	-	12
Kans.	4	15	-	16	23	1	-	-	26
S. ATLANTIC	4,464	2,982	-	1,617	1,544	3	9	17	540
Del.	39	16	-	15	19	1	-	-	-
Md.	243	192	-	142	111	-	2	5	191
D.C.	135	140	-	49	53	-	-	-	23
Va.	109	177	-	160	142	1	1	-	161
W. Va.	5	8	-	48	47	-	1	1	23
N.C.	253	201	-	158	203	1	1	2	2
S.C.	296	279	-	145	171	-	-	6	27
Ga.	643	513	-	248	229	-	-	2	81
Fla.	2,741	1,456	-	652	569	-	4	1	32
E.S. CENTRAL	816	669	-	639	710	2	1	9	168
Ky.	6	29	-	166	176	1	-	-	81
Tenn.	353	261	-	163	201	-	1	6	51
Ala.	203	237	-	211	240	-	-	1	36
Miss.	254	142	-	99	93	1	-	2	-
W.S. CENTRAL	1,712	2,173	-	910	979	13	7	23	294
Ark.	83	101	-	96	115	5	1	1	70
La.	300	355	-	104	171	1	-	-	5
Okla.	72	64	-	88	95	7	2	22	10
Tex.	1,257	1,653	-	622	598	-	4	-	209
MOUNTAIN	288	236	-	185	180	8	3	2	164
Mont.	7	2	-	8	7	1	-	2	86
Idaho	3	4	-	16	5	1	-	-	-
Wyo.	1	-	-	-	-	-	-	-	38
Colo.	44	73	-	-	15	1	-	-	-
N. Mex.	30	26	-	37	40	1	3	-	1
Ariz.	143	96	-	108	82	3	-	-	35
Utah	9	4	-	6	16	1	-	-	1
Nev.	51	31	-	10	15	-	-	-	3
PACIFIC	2,944	2,063	2	1,729	1,537	4	50	1	181
Wash.	31	51	2	92	86	2	2	-	-
Oreg.	104	43	-	49	53	2	-	-	-
Calif.	2,801	1,951	-	1,480	1,295	-	46	1	180
Alaska	2	-	-	27	24	-	-	-	1
Hawaii	6	18	-	81	79	-	2	-	-
Guam	2	1	-	4	30	-	-	-	-
P.R.	409	333	-	113	119	-	-	-	29
V.I.	3	-	-	1	1	-	-	-	-
Pac. Trust Terr.	83	130	-	74	13	-	9	-	-
Amer. Samoa	2	-	-	-	3	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending
May 30, 1987 (21st Week)

Reporting Area	All Causes, By Age (Years)						PAI**	Reporting Area	All Causes, By Age (Years)						PAI**
	All Ages	≥65	45-64	25-44	1-24	<1			All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	674	475	130	41	15	13	45	S. ATLANTIC	1,073	621	272	104	28	48	38
Boston, Mass.	192	126	38	14	6	8	19	Atlanta, Ga.	148	69	35	24	3	17	5
Bridgeport, Conn.	38	28	8	1	-	1	3	Baltimore, Md.	200	124	48	17	4	7	10
Cambridge, Mass.	26	23	1	2	-	-	3	Charlotte, N.C.‡	92	58	20	9	2	3	4
Fall River, Mass.	30	23	6	-	1	-	2	Jacksonville, Fla.	118	69	32	13	4	-	4
Hartford, Conn.	59	41	15	1	1	1	2	Miami, Fla.	69	42	18	6	2	1	-
Lowell, Mass.	30	21	6	3	-	-	1	Norfolk, Va.	51	30	10	4	5	2	1
Lynn, Mass.	22	17	5	-	-	-	1	Richmond, Va.	71	39	23	5	2	2	1
New Bedford, Mass.	30	23	4	2	1	-	1	Savannah, Ga.	31	14	12	2	1	2	3
New Haven, Conn.	57	36	10	9	1	1	2	St. Petersburg, Fla.	60	49	10	1	-	-	3
Providence, R.I.	50	34	11	2	3	-	3	Tampa, Fla.	65	43	15	5	-	2	4
Somerville, Mass.	7	6	1	-	-	-	2	Washington, D.C.	145	68	42	18	5	12	2
Springfield, Mass.	38	29	6	2	-	1	2	Wilmington, Del.	23	16	7	-	-	-	1
Waterbury, Conn.	41	28	8	3	1	1	3	E.S. CENTRAL	668	428	144	49	27	20	34
Worcester, Mass.	54	40	11	2	1	-	5	Birmingham, Ala.	67	43	10	4	6	4	2
MID. ATLANTIC	2,669	1,783	522	252	55	56	110	Chattanooga, Tenn.	52	37	10	3	2	-	3
Albany, N.Y.	57	41	11	3	2	-	1	Knoxville, Tenn.	86	65	13	6	1	1	5
Allentown, Pa.	25	17	8	-	-	-	1	Louisville, Ky.	97	66	22	4	4	1	4
Buffalo, N.Y.	112	67	33	8	2	2	5	Memphis, Tenn.	174	103	39	16	6	10	13
Camden, N.J.	37	19	9	6	2	1	1	Mobile, Ala.	21	7	7	5	2	-	-
Elizabeth, N.J.	29	22	5	1	1	-	-	Montgomery, Ala.	52	36	14	2	-	-	3
Erie, Pa.	33	27	4	2	-	-	1	Nashville, Tenn.	119	71	29	9	6	4	4
Jersey City, N.J.	56	38	10	7	-	1	1	W.S. CENTRAL	1,156	695	254	115	52	40	44
N.Y. City, N.Y.	1,347	869	259	155	33	31	60	Austin, Tex.	50	34	3	7	4	2	5
Newark, N.J.	39	16	8	10	3	1	5	Baton Rouge, La.	36	25	6	4	1	-	1
Paterson, N.J.	46	27	14	3	1	1	-	Corpus Christi, Tex.	41	24	11	4	2	-	-
Philadelphia, Pa.	393	274	77	30	4	8	15	Dallas, Tex.	134	72	32	17	6	7	6
Pittsburgh, Pa.	76	54	18	4	-	-	3	El Paso, Tex.	44	26	6	3	6	3	2
Reading, Pa.	44	31	9	-	2	2	3	Fort Worth, Tex.	84	46	22	11	1	4	2
Rochester, N.Y.	121	94	15	8	1	3	3	Houston, Tex.‡	308	176	74	34	13	11	7
Schenectady, N.Y.	30	24	4	1	1	-	2	Little Rock, Ark.	58	32	14	9	1	2	4
Scranton, Pa.	26	20	3	3	-	-	1	New Orleans, La.	110	65	26	6	11	2	-
Syracuse, N.Y.	117	82	23	4	2	6	4	San Antonio, Tex.	140	88	34	10	4	4	6
Trenton, N.J.	31	20	8	3	-	-	1	Shreveport, La.	69	50	11	5	1	2	4
Utica, N.Y.	21	15	2	3	1	-	1	Tulsa, Okla.	82	57	15	5	2	3	7
Yonkers, N.Y.	29	26	2	1	-	-	2	MOUNTAIN	666	405	134	58	31	38	26
E.N. CENTRAL	2,102	1,401	413	156	64	68	65	Albuquerque, N. Mex.	80	55	15	5	3	2	8
Akron, Ohio	63	42	11	5	2	3	-	Colo. Springs, Colo.	31	22	5	2	2	-	2
Canton, Ohio	26	19	4	3	-	-	1	Denver, Colo.	121	69	17	7	6	22	4
Chicago, Ill.‡	564	362	125	45	10	22	16	Las Vegas, Nev.	107	57	30	12	7	1	3
Cincinnati, Ohio	138	87	34	10	3	4	13	Ogden, Utah	33	26	4	3	-	-	2
Cleveland, Ohio	116	67	26	14	5	4	4	Phoenix, Ariz.	131	68	32	17	7	7	3
Columbus, Ohio	124	86	22	6	5	5	4	Pueblo, Colo.	25	20	5	-	-	-	1
Dayton, Ohio	119	79	27	8	3	2	-	Salt Lake City, Utah	43	26	8	3	4	2	1
Detroit, Mich.	239	149	47	24	9	10	2	Tucson, Ariz.	95	62	18	9	2	4	2
Evansville, Ind.	47	35	10	1	1	-	1	PACIFIC	1,699	1,092	332	161	65	42	89
Fort Wayne, Ind.	47	38	5	1	2	1	2	Berkeley, Calif.	11	8	1	1	-	1	1
Gary, Ind.	11	3	4	2	2	-	-	Fresno, Calif.	61	41	10	6	4	-	6
Grand Rapids, Mich.	29	21	6	-	-	2	2	Glendale, Calif.	26	18	2	5	1	-	3
Indianapolis, Ind.	155	102	32	10	6	5	3	Honolulu, Hawaii	62	40	17	3	-	2	7
Madison, Wis.‡	28	20	2	3	3	-	3	Long Beach, Calif.	92	67	14	6	1	4	2
Milwaukee, Wis.	126	97	18	8	2	1	3	Los Angeles, Calif.	537	336	98	59	30	7	20
Peoria, Ill.	32	25	6	-	1	-	1	Oakland, Calif.‡	76	46	18	5	4	3	4
Rockford, Ill.	41	27	3	6	2	3	2	Pasadena, Calif.	33	27	4	2	-	-	2
South Bend, Ind.	57	42	11	1	1	2	2	Portland, Oreg.	77	54	14	5	2	2	4
Toledo, Ohio	108	75	15	8	6	4	6	Sacramento, Calif.	144	85	30	15	9	5	13
Youngstown, Ohio	32	25	5	1	1	-	-	San Diego, Calif.	92	60	21	6	1	4	7
W.N. CENTRAL	618	446	100	42	12	18	49	San Francisco, Calif.	139	86	27	21	4	1	6
Des Moines, Iowa	53	41	7	1	1	3	4	San Jose, Calif.	146	86	36	12	6	6	6
Duluth, Minn.	25	19	4	-	-	2	-	Seattle, Wash.	116	78	22	10	3	3	3
Kansas City, Kans.	34	22	5	5	2	-	-	Spokane, Wash.	51	38	9	1	-	3	4
Kansas City, Mo.	109	77	15	10	4	3	8	Tacoma, Wash.	36	22	9	4	-	1	1
Lincoln, Nebr.	36	30	1	4	1	-	-	TOTAL	11,325	7,346	2,301	978	349	343	500
Minneapolis, Minn.	110	77	21	8	1	3	14								
Omaha, Nebr.	56	43	5	5	-	3	3								
St. Louis, Mo.	100	70	21	5	1	3	17								
St. Paul, Minn.	53	39	9	4	-	1	1								
Wichita, Kans.	42	28	12	-	2	-	-								

*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.

Lead Testing – Continued

If a child's blood lead is elevated ($\geq 25\mu\text{g/dl}$), the tenant is urged to notify the PHA. In both housing units and child-care facilities owned and operated by the PHA, all chewable surfaces and areas where paint is flaking must be tested for leaded paint. When lead-based paint is found, it is to be removed, and parents are to be directed to the local public health agency for laboratory and testing services and for medical follow-up, as appropriate.

Reported by: Div of Environmental Hazards and Health Effects, Center for Environmental Health, CDC.

Editorial Note: Testing for blood lead requires that blood be sent to a laboratory qualified to analyze both blood lead and erythrocyte protoporphyrin. Although many state and local health departments have ongoing lead screening programs, others, especially those in the western part of the country, are not screening children routinely. Children found to have lead toxicity should be referred for medical follow-up. In addition, the source of lead should be identified through an environmental investigation, and the hazard, abated. Otherwise, the child should be moved into a lead-free environment. This HUD regulation is likely to increase the demand for blood-lead and erythrocyte protoporphyrin testing and medical and environmental follow-up.

References

1. US Department of Housing and Urban Development. Lead-based paint hazard elimination in public and Indian housing. Federal Register 1986;51(Aug 1):27774-92.
2. US Department of Housing and Urban Development. Lead-based paint hazard elimination in certain FHA single family and multifamily housing programs. Federal Register 1987;52 (Jan 15):1876-96.

Topics in Minority Health

Tuberculosis Among Asians/Pacific Islanders – United States, 1985

In 1985, 22,201 tuberculosis cases were reported to CDC, for a rate of 9.3 cases per 100,000 U.S. population (1). Two thousand five hundred and thirty (11.4%) of the 22,170 patients for whom race was known were Asians/Pacific Islanders (2). The rate for this group was 49.6/100,000, which is 8.7 times higher than the 1985 rate of 5.7/100,000 for the white population in the United States (3).

Two thousand five hundred and twenty-five of these Asian/Pacific Islander patients resided in 330 (10.5%) of the nation's 3,138 counties (Figure 1). Of these, 1,151 (45.6%) were in California; 174 (6.9%) were in Hawaii; 164 (6.5%) were in New York; 143 (5.7%) were in Texas; 135 (5.3%) were in Illinois; and 763 (30.2%) were in 43 other states and the District of Columbia.

The country of origin was reported for 2,357 of these patients. Of these, 2,207 (93.6%) were foreign-born: this group included 643 (27.3%) from Kampuchea, Laos, and Vietnam; 595 (25.2%) from the Republic of the Philippines; 346 (14.7%) from the Republic of Korea; 226 (9.6%) from the People's Republic of China; and 397 (16.8%) from other countries. Refugees from Kampuchea, Laos, and Vietnam who arrived in the United States during the period 1975-1985 and had disease diagnosed in 1985 had an estimated incidence rate of 75.2/100,000 (572 cases among 760,900 refugees). Those who arrived in 1984 and had disease diagnosed in 1985 had an incidence rate of 310/100,000 (161 cases among approximately 52,000 refugees).

Tuberculosis — Continued

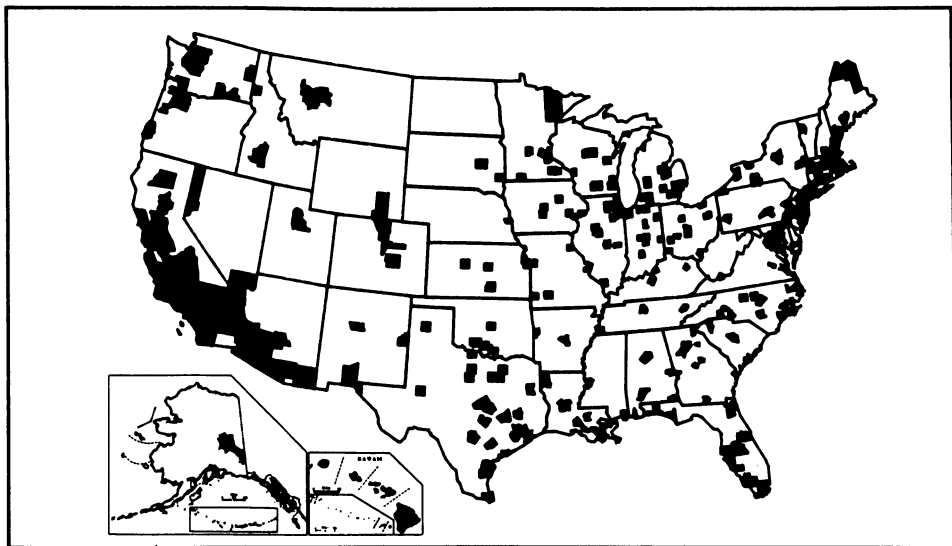
Tuberculosis developed within the first year of U.S. residency for 40.3% of all foreign-born Asians/Pacific Islanders with known date of arrival. Disease developed among an additional 8.7% within the second year of residency (Figure 2). There was little variation in this observation among the major groups of immigrants.

Because preventive therapy is indicated for all infected persons <35 years of age, analysis by age was performed. Age was known for 2,529 of the Asian/Pacific Islander patients. Of these 2,529, 1,126 (44.5%) were <35 years of age when their disease was reported. Information on the date of arrival in the United States was available on 1,879 (85.1%) of the 2,207 foreign-born patients. Of these, 826 (44.0%) were <35 years of age at the time of diagnosis in 1985. An additional 182 (9.7%) were <35 years of age when they arrived in the United States.

Reported by: Div of Tuberculosis Control, Center for Prevention Svcs, CDC.

Editorial Note: From 1980 to 1985, the Asian population in the United States grew from 3.5 million to an estimated 5.1 million (2). A large proportion of today's U.S. Asian/Pacific Islander population are immigrants or refugees from areas with a high prevalence of tuberculous infection. Refugees from Kampuchea, Laos, and Vietnam are routinely screened for tuberculosis in overseas camps, and patients with active tuberculosis are required to complete a 6-month course of directly observed chemotherapy before entering the United States (4). Therapy consists of treatment with three antituberculosis drugs (isoniazid [INH], rifampin, and ethambutol) for the full 6 months and supplemental administration of pyrazinamide during the first 2 months. The benefits of using such a fully supervised multidrug regimen are 1) a rapid reduction in infection; 2) a high rate of completion of therapy and of cure; 3) a short duration of treatment; 4) a high success rate even in the presence of initial drug resistance, which is reportedly high among this population (5); and 5) a low risk of acquired drug resistance (6).

FIGURE 1. Counties reporting tuberculosis among Asians/Pacific Islanders — United States, 1985



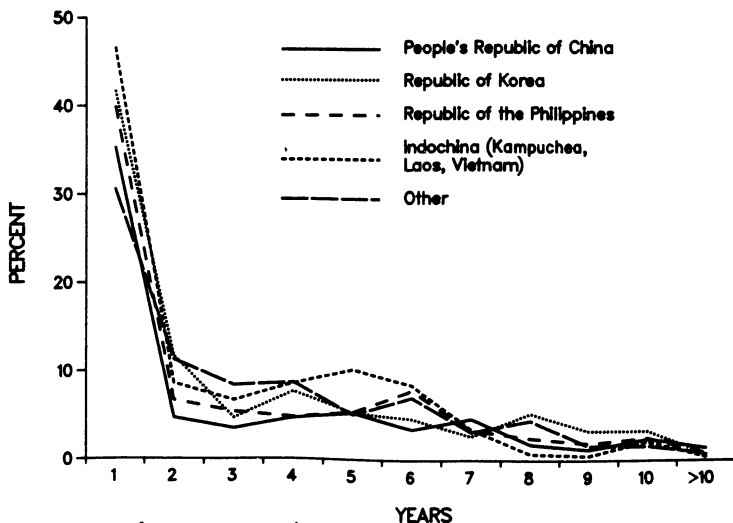
Tuberculosis – Continued

In 1985, tuberculosis among Asians/Pacific Islanders occurred almost entirely among foreign-born persons. Almost half of all tuberculosis cases among Asians/Pacific Islanders were reported from California, and an additional one-quarter were from four other states. Nevertheless, cases have been reported from all but two states. In 1980, a large influx of refugees into the United States from Southeast Asia caused national tuberculosis morbidity to increase (7). When the number of refugees entering the United States decreased, the national trend resumed its previous decline. While the proportion of total tuberculosis cases represented by this group decreased from 5.3% for the period 1979-1980 to 2.9% in 1985, the risk of tuberculosis among refugees recently arriving from Kampuchea, Laos, and Vietnam (310/100,000) is higher than it was in 1980 (231/100,000) (7).

Nearly half of all Asians/Pacific Islanders with tuberculosis were <35 years of age. By comparison, 14% of non-Hispanic white patients with tuberculosis were <35 (3). Furthermore, more than half of the foreign-born patients arrived in the United States when they were <35 years of age—the age group within which preventive therapy is routinely recommended for persons with tuberculous infection (8). Irrespective of country of origin, close to 50% of foreign-born Asians/Pacific Islanders with tuberculosis became ill within the first 2 years after their arrival.

These findings suggest that half of all tuberculosis cases among Asians/Pacific Islanders would be potentially preventable if refugees and immigrants were given tuberculin skin tests and offered preventive therapy according to current guidelines (8) shortly after arrival in the United States. Because noncompliance may lead to failures in preventive therapy among refugees (9), particular attention should be given to health education and other means of encouraging compliance, such as directly observed therapy (10). Because of the risk of overdosage with self-administered therapy (11), directly observed therapy should be used for refugees and immigrants with a history of depression or suicidal tendencies. Failures in preventive

FIGURE 2. Percentage* distribution of tuberculosis cases among foreign-born Asians, by length of stay in United States, 1985



*Average percentage of cases reported per year.

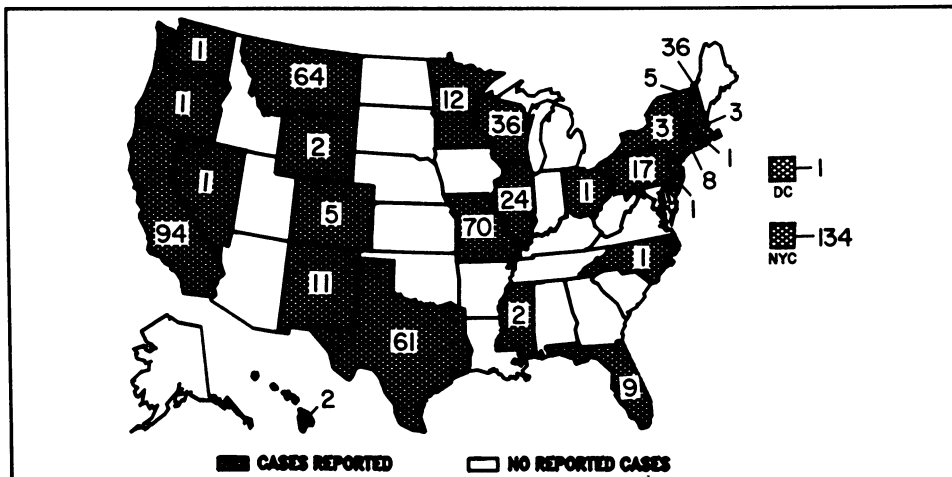
Tuberculosis — Continued

therapy among Southeast Asian refugees may occur because of the high prevalence of resistance to INH in this population (6,9). For this reason, the development of alternative regimens of preventive therapy is crucial to improving disease prevention efforts among refugees and other persons from countries where infection with INH-resistant organisms is common (12).

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FIGURE I. Reported measles cases — United States, weeks 17-20, 1987



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