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Cholera Associated with Food Transported from El Salvador — Indiana, 1994

Since the onset of the cholera epidemic in Latin America in 1991, most cases of cholera in the United States have occurred among persons traveling to the United States from cholera-affected areas or who have eaten contaminated food brought or imported from these areas. In December 1994, a cluster of cholera cases occurred among persons in Indiana who had shared a meal of contaminated food brought from El Salvador. This report summarizes the investigation of the cases conducted by the Indiana State Department of Health (ISDH) in collaboration with the local health departments in Jasper and Newton counties (Indiana), the Illinois Department of Public Health, and the DeWitt-Piatt (Illinois) Bi-County Health Department.

On December 30, 1994, a 56-year-old male resident of Illinois who was visiting relatives in Indiana had onset of severe watery diarrhea, nausea, and vomiting. On December 31, he was evaluated at a local hospital and admitted because of dehydration and hypothermia. Culture of a stool sample obtained from the patient on admission yielded toxigenic *Vibrio cholerae* O1, serotype Ogawa, biotype El Tor. The culture was confirmed by ISDH, the Kentucky Department for Health Services, and CDC. He was treated with intravenous rehydration and antibiotics and was discharged on January 7, 1995. The patient's 51-year-old wife also had onset of watery diarrhea on December 30. She was evaluated at the same hospital on December 31 and again on January 2, 1995. Stool cultures obtained on both occasions were negative for bacterial pathogens but were not cultured specifically for *V. cholerae* on thiosulfate-citrate-bile salts-sucrose (TCBS) agar.

During the month preceding onset of their illnesses, these persons had neither traveled outside the United States nor eaten raw shellfish. On December 29, while visiting their 26-year-old daughter in Indiana, they shared a meal with her and their 18-year-old son. The meal comprised palm fruit, bread, and white cheese, all of which had been brought from El Salvador to Indiana 2 days earlier by a relative. Neither their daughter nor son reported diarrhea.

To determine the number of persons infected with *V. cholerae* O1, serum was obtained from the four persons who shared the meal and from the 28-year-old son-in-law who did not eat any of the food items from El Salvador. Vibriocidal antibody titers ≥640, indicating recent infection with *V. cholerae* O1, were detected in the four persons who had shared the meal but not in the son-in-law. Although the relative

Cholera — Continued

who brought the food had returned to El Salvador before he could be interviewed, family members reported that he had had no diarrheal illness while in the United States. The methods of preparation of the foods in El Salvador could not be determined; however, the palm fruit was reportedly home-canned in a salt and vinegar solution. No food items were available for testing.

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Editorial Note: Although most recent cases of cholera in the United States have been associated with international travel (*1,2*), three U.S. outbreaks have been linked to consumption of food transported from other countries: two associated with crab meat transported in suitcases from Ecuador (*3,4*) and one associated with commercial frozen coconut milk imported from Thailand (*5*). The investigation of the cases in Indiana did not implicate a specific contaminated food item; however, of the three food items transported from El Salvador, canned palm fruit is more likely to support the growth of *V. cholerae* than dry foods, such as bread or cheese.

Since the introduction of cholera into Latin America in 1991, approximately 1 million cases and 9000 associated deaths have been reported to the Pan American Health Organization (PAHO) (*2*). In 1994, El Salvador and 12 other countries in Latin America reported cholera cases to PAHO (*2*). Travelers to Latin America and cholera-affected areas in Asia and Africa should eat only foods that have been cooked and are still hot and should drink only beverages that are carbonated or made from boiled or chlorinated water. Travelers also should be advised not to transport food from cholera-affected areas.

The health-care providers who evaluated and treated the patients in this report initially did not suspect cholera because the patients had had no history of recent travel. Patients with severe diarrhea or suspected cholera should be asked about histories of recent travel and consumption of foods transported from another country. Stool samples obtained from persons with suspected cholera should be cultured on TCBS agar because other media routinely used for stool cultures may not support the growth of *V. cholerae*. Isolates of *V. cholerae* should be sent to a state public health laboratory for serogrouping; isolates that are serogroup O1 or O139 should subsequently be referred to CDC for toxin testing.

References

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3. CDC. Cholera—New York, 1991. MMWR 1991;40:516–8.
4. Finelli L, Swerdlow D, Mertz K, Ragazzoni H, Spitalny K. Outbreak of cholera associated with crab brought from an area with epidemic disease. J Infect Dis 1992;166:1433–5.
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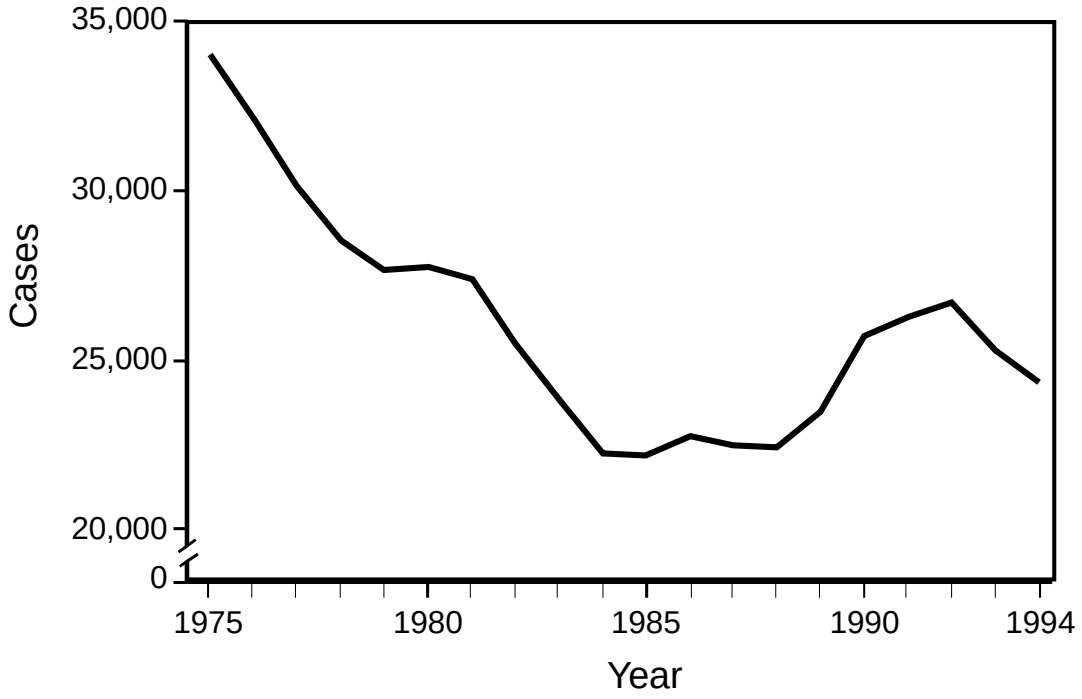
Tuberculosis Morbidity — United States, 1994

In 1994, a total of 24,361 cases of tuberculosis (TB) (9.4 cases per 100,000 population) were reported to CDC from the 50 states, the District of Columbia, and New York City, a 3.7% decrease from 1993 (25,287 cases [9.8 cases per 100,000]) (*1*). However, the number of cases reported in 1994 was a 9.7% increase over 1985 (22,201 cases) (Figure 1), the year with the lowest number of reported TB cases since national reporting began in 1953. This report summarizes TB surveillance data for 1994 and compares the findings with 1992 and 1993.

During 1994, a total of 27 states reported fewer TB cases than in 1993; in comparison, during 1993, 31 states reported fewer cases than in 1992 (Table 1). Sixteen states reported fewer cases in both 1993 and 1994 than in 1992 and 1993. Six states reported an increased number of cases in both 1993 and 1994 than in 1992 and 1993 (Table 1).

During 1994, TB cases reported among persons born outside the United States and its territories (i.e., foreign-born persons) accounted for 31.9% (7627 of 23,905) of total reported cases (excludes 456 persons with unknown country of origin), compared with 29.6% (7354 of 24,818) of reported cases in 1993 (excludes 469 persons with unknown country of origin). Compared with 1993, in 1994 the number of reported cases among persons born in the United States decreased by 6.8%, and the number of cases among foreign-born persons increased by 3.7%. The number of cases occurring in U.S.-born persons decreased in all age groups except for children aged <15 years; in this age group, the number of cases in 1994 increased 0.4%. In comparison, the number of reported cases among foreign-born persons increased in all age groups except for children aged <15 years; in this age group, the number of cases decreased by 7.5% in 1994. The country of origin was known for 7483 (98.1%) foreign-born persons

FIGURE 1. Number of tuberculosis cases, by year — United States, 1975–1994



Tuberculosis — Continued

TABLE 1. Reported tuberculosis cases and percentage change, by state and year — United States, 1992–1994

State	No. cases			% Change	
	1992	1993	1994	1992–1993	1993–1994
Alabama	418	487	433	+16.5	–11.9
Alaska	57	57	93	0	+63.2
Arizona	259	231	249	–10.8	+ 7.8
Arkansas	257	209	264	–18.7	+26.3
California	5,382	5,170	4,859	– 3.9	– 6.0
Colorado	104	104	94	0	– 9.6
Connecticut	156	155	148	– 0.6	– 4.5
Delaware	55	66	57	+20.0	–13.6
District of Columbia	146	161	121	+10.3	–24.8
Florida	1,707	1,655	1,762	– 3.0	+ 6.5
Georgia	893	812	740	– 9.1	– 8.9
Hawaii	273	251	247	– 8.1	– 1.6
Idaho	26	11	13	–57.7	+18.2
Illinois	1,270	1,237	1,117	– 2.6	– 9.7
Indiana	247	248	211	+ 0.4	–14.9
Iowa	49	59	66	+20.4	+11.9
Kansas	56	80	84	+42.9	+ 5.0
Kentucky	402	404	347	+ 0.5	–14.1
Louisiana	373	367	433	– 1.6	+18.0
Maine	24	28	35	+16.7	+25.0
Maryland	442	417	363	– 5.7	–13.0
Massachusetts	428	370	329	–13.6	–11.1
Michigan	495	480	462	– 3.0	– 3.8
Minnesota	165	144	140	–12.7	– 2.8
Mississippi	281	279	278	– 0.7	– 0.4
Missouri	245	257	260	+ 4.9	+ 1.2
Montana	16	22	24	+37.5	+ 9.1
Nebraska	28	23	22	–17.9	– 4.6
Nevada	99	99	126	0	+27.3
New Hampshire	18	26	17	+44.4	–34.6
New Jersey	984	912	855	– 7.3	– 6.3
New Mexico	88	74	81	–15.9	+ 9.5
New York	4,574	3,953	3,636	–13.6	– 8.0
North Carolina	604	594	566	– 1.7	– 4.7
North Dakota	11	7	10	–36.4	+42.9
Ohio	358	315	337	–12.0	+ 7.0
Oklahoma	216	209	261	– 3.2	+24.9
Oregon	145	154	165	+ 6.2	+ 7.1
Pennsylvania	758	749	621	– 1.2	–17.1
Rhode Island	54	64	56	+18.5	–12.5
South Carolina	387	401	387	+ 3.6	– 3.5
South Dakota	32	16	28	–50.0	+75.0
Tennessee	527	556	520	+ 5.5	– 6.5
Texas	2,510	2,396	2,542	– 4.5	+ 6.1
Utah	78	46	55	–41.0	+19.6
Vermont	7	7	10	0	+42.9
Virginia	457	458	372	+ 0.2	–18.9
Washington	306	285	264	– 6.9	– 7.4
West Virginia	92	75	80	–18.5	+ 6.7
Wisconsin	106	100	109	– 5.7	+ 9.0
Wyoming	8	7	12	–12.5	+71.4
Total	**26,673**	**25,287**	**24,361**	**– 5.2**	**– 3.7**

Tuberculosis — Continued

with cases reported in 1994; six countries (Haiti, India, Mexico, People's Republic of China, Philippines, and Vietnam) accounted for 64.8% of these cases. However, these countries accounted for only 35.2% of the foreign-born population in the United States in 1990 (*2*). Of the 4907 foreign-born persons reported in 1994 whose records contained information on month and year of immigration, TB was diagnosed in 1474 (30.0%) <1 year after entering the United States.

Beginning in January 1993, TB surveillance was expanded to collect additional information concerning each case, including results of human immunodeficiency virus (HIV)-antibody testing, occupation, history of substance abuse, homelessness, residence in a correctional or long-term–care facility, initial antituberculosis drug therapy and results of drug-susceptibility testing (*3*). Selected characteristics were analyzed for cases in reporting areas where ≥75% of records contained information for 1994. Based on information from 51 of the reporting areas, 53.7% of cases had been prescribed the initial four-drug regimen recommended by the American Thoracic Society and CDC (isoniazid [INH], rifampin [RIF], pyrazinamide [PZA], and either ethambutol or streptomycin) (*4*); 22.4% of patients had been prescribed INH, RIF, and PZA; 6.8% of patients had been prescribed INH and RIF. In ≤25 reporting areas, use of illegal drugs and alcohol among patients ranged from 3.3% for injecting drugs to 15.9% for alcohol. In 31 reporting areas, 64.9% of patients were unemployed. In 40 reporting areas, 5.7% of persons were homeless; in 50 reporting areas, 4.6% resided in correctional institutions, and in 48 reporting areas, 6.0% resided in long-term–care facilities. HIV-test results were available for 36.4% of all patients aged 25–44 years; however, only nine areas reported this information for ≥75% of records.

Drug-susceptibility results for *Mycobacterium tuberculosis* isolates were reported for 81.7% of persons with culture-positive TB in 1994. For 28 states, drug-susceptibility results were available for ≥75% of cases; 8.0% of cases were resistant to at least isoniazid (INH), and 2.2% were resistant to at least INH and rifampin (RIF). The 28 states reporting drug-susceptibility results accounted for 64% of the culture-positive cases reported in 1994 and included 12 states in which the reported prevalence of INH and RIF resistance was ≥1% in 1993 (*1*) or in the previous national survey in 1991 (*5*).

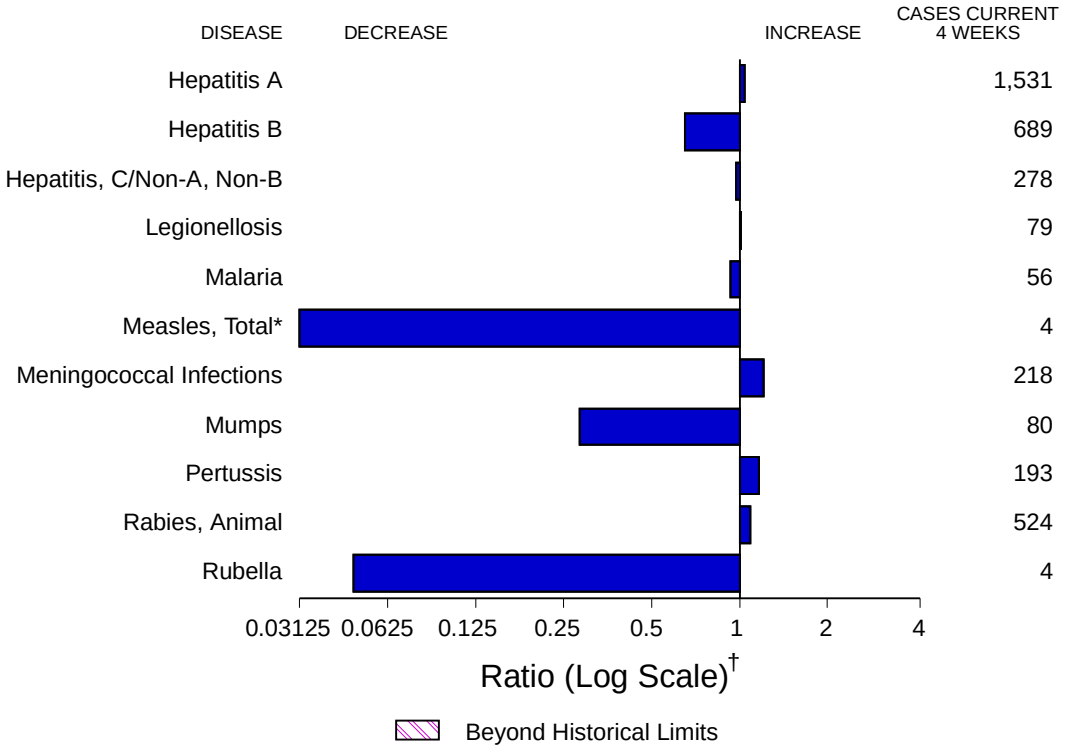
Reported by: Div of Tuberculosis Elimination, National Center for Prevention Svcs, CDC.

Editorial Note: From 1985 through 1992, the number of TB cases reported annually in the United States increased 20%, from 22,201 to 26,673 (*6*). Factors that have been associated with the resurgence of TB have included the HIV/acquired immunodeficiency syndrome (AIDS) epidemic; immigration of persons from countries where TB incidence rates are 10–30 times higher than in the United States; transmission of TB among persons residing in congregate settings such as hospitals, prisons, and homeless shelters; and declines in resources for TB control (*6*). From 1992 through 1994, the number of TB cases reported annually decreased 8.7%, in part reflecting the impact of federal resources to assist state and local TB-control efforts, including directly observed therapy (DOT), tuberculin screening and preventive therapy for persons at high risk for TB infection, and support for programs to prevent TB among HIV-infected persons.

Although the expansion of the TB surveillance system in 1993 was implemented to enable more complete characterization of TB morbidity in specific risk groups, reporting has been incomplete for some factors. For example, in 1994, only 28 states

(Continued on page 395)

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending May 20, 1995, with historical data — United States



*The large apparent decrease in the number of reported cases of measles (total) reflects dramatic fluctuations in the historical baseline.

†Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending May 20, 1995 (20th Week)

	Cum. 1995		Cum. 1995
Anthrax	-	Psittacosis	23
Brucellosis	23	Rabies, human	1
Cholera	6	Rocky Mountain Spotted Fever	52
Congenital rubella syndrome	3	Syphilis, congenital, age < 1 year†	-
Diphtheria	1	Tetanus	8
*Haemophilus influenzae**	508	Toxic shock syndrome	80
Hansen Disease	48	Trichinosis	18
Plague	2	Typhoid fever	113
Poliomyelitis, Paralytic	-		

*Of 494 cases of known age, 121 (24%) were reported among children less than 5 years of age.
†Updated quarterly from reports to the Division of Sexually Transmitted Diseases and HIV Prevention, National Center for Prevention Services. First quarter data not yet available.
-: no reported cases

TABLE II. Cases of selected notifiable diseases, United States, weeks ending May 20, 1995, and May 21, 1994 (20th Week)

Reporting Area	AIDS*	Gonorrhea		Hepatitis (Viral), by type						Legionellosis	
				A		B		C/NA,NB			
	Cum. 1995	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994
UNITED STATES	19,652	135,771	142,527	9,288	8,321	3,429	4,544	1,521	1,642	488	539
NEW ENGLAND	842	1,652	3,170	71	127	64	165	43	57	4	9
Maine	23	30	34	13	11	2	7	-	-	1	-
N.H.	38	40	28	4	4	8	13	2	5	-	-
Vt.	7	18	11	3	1	1	5	-	6	-	-
Mass.	457	999	1,129	32	60	27	106	41	35	3	5
R.I.	59	14	177	1	12	-	3	-	11	-	4
Conn.	258	551	1,791	18	39	26	31	-	-	N	N
MID. ATLANTIC	4,550	13,793	16,099	504	579	414	577	127	204	55	61
Upstate N.Y.	521	2,612	3,473	138	189	134	148	66	92	16	15
N.Y. City	2,342	4,571	6,289	224	206	104	131	1	1	-	-
N.J.	1,112	1,310	2,073	71	121	106	144	49	94	11	11
Pa.	575	5,300	4,264	71	63	70	154	11	17	28	35
E.N. CENTRAL	1,622	29,331	30,504	1,189	767	373	464	105	150	136	189
Ohio	409	9,763	9,379	733	226	43	76	5	8	72	69
Ind.	106	2,614	2,983	57	136	85	84	-	3	27	64
Ill.	737	7,876	8,964	186	235	72	131	22	41	10	11
Mich.	278	7,251	6,483	151	99	157	137	78	98	14	29
Wis.	92	1,827	2,695	62	71	16	36	-	-	13	16
W.N. CENTRAL	427	7,238	8,083	532	372	204	253	38	29	44	35
Minn.	93	1,152	1,242	63	76	20	28	2	6	-	-
Iowa	20	577	515	32	11	15	12	3	7	9	20
Mo.	148	4,306	4,295	361	179	139	185	23	5	27	7
N. Dak.	1	10	16	13	1	2	-	1	-	3	3
S. Dak.	1	70	70	11	15	1	-	1	-	-	-
Nebr.	43	-	452	9	46	9	13	3	5	3	3
Kans.	121	1,123	1,493	43	44	18	15	5	6	2	2
S. ATLANTIC	5,708	40,495	38,638	413	414	478	909	119	244	78	140
Del.	113	774	690	7	13	2	7	1	1	-	-
Md.	978	4,741	7,247	71	63	79	145	3	13	16	31
D.C.	373	1,868	2,506	3	10	10	16	-	-	3	4
Va.	374	4,195	4,814	75	53	35	46	3	17	4	3
W. Va.	21	224	278	10	4	21	10	20	13	3	1
N.C.	248	9,467	9,571	50	46	116	115	25	27	14	10
S.C.	280	4,447	4,656	14	11	20	14	7	3	16	3
Ga.	594	6,729	U	41	21	49	401	11	147	9	69
Fla.	2,727	8,050	8,876	142	193	146	155	49	23	13	19
E.S. CENTRAL	612	17,234	13,086	479	164	289	469	422	310	11	24
Ky.	63	1,738	1,697	18	86	29	44	6	12	1	4
Tenn.	269	5,079	5,138	387	54	208	395	414	293	6	13
Ala.	159	7,215	6,251	50	24	52	30	2	5	3	7
Miss.	121	3,202	U	24	U	-	U	-	U	1	U
W.S. CENTRAL	1,404	12,672	16,145	1,044	1,060	498	463	211	145	5	11
Ark.	64	1,490	2,505	91	20	18	8	1	3	-	4
La.	299	4,547	4,704	32	60	64	67	47	36	2	-
Okla.	84	873	1,448	191	95	152	121	151	80	2	7
Tex.	957	5,762	7,488	730	885	264	267	12	26	1	-
MOUNTAIN	637	2,990	3,682	1,681	1,635	297	231	181	174	94	39
Mont.	8	32	38	24	11	9	7	7	2	2	13
Idaho	17	51	33	172	139	38	35	22	43	1	-
Wyo.	4	19	35	64	7	7	7	70	50	2	2
Colo.	214	1,154	1,267	216	188	50	41	29	27	27	5
N. Mex.	69	326	404	314	416	103	78	25	31	3	1
Ariz.	133	1,113	1,157	484	620	52	25	20	7	44	1
Utah	37	83	135	357	161	27	16	3	9	5	3
Nev.	155	212	613	50	93	11	22	5	5	10	14
PACIFIC	3,850	10,366	13,120	3,375	3,203	812	1,013	275	329	61	31
Wash.	360	955	1,152	224	453	62	96	78	110	5	7
Oreg.	122	165	354	631	312	37	56	19	13	-	-
Calif.	3,261	8,706	11,005	2,444	2,336	703	835	168	202	51	22
Alaska	29	311	324	15	84	4	6	1	-	-	-
Hawaii	78	229	285	61	18	6	20	9	4	5	2
Guam	-	23	52	1	9	-	-	-	-	-	2
P.R.	649	216	213	35	27	282	124	182	46	-	-
V.I.	14	4	10	-	-	2	1	-	-	-	-
Amer. Samoa	-	8	14	5	4	-	-	-	-	-	-
C.N.M.I.	-	10	21	11	2	6	-	-	-	-	-

N: Not notifiable U: Unavailable -: no reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands

*Updated monthly to the Division of HIV/AIDS, National Center for Infectious Diseases; last update March 30, 1995.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending May 20, 1995, and May 21, 1994 (20th Week)

Reporting Area	Lyme Disease		Malaria		Measles (Rubeola)						Meningococcal Infections		Mumps	
					Indigenous		Imported*		Total					
	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	1995	Cum. 1995	1995	Cum. 1995	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994
UNITED STATES	1,563	1,838	328	359	-	148	1	5	153	617	1,320	1,313	323	613
NEW ENGLAND	165	168	14	24	-	2	-	-	2	18	67	56	3	10
Maine	1	-	1	1	-	-	-	-	-	4	5	12	2	3
N.H.	9	6	1	3	-	-	-	-	-	-	14	4	-	4
Vt.	2	1	-	1	-	-	-	-	-	1	6	1	-	-
Mass.	40	23	4	9	-	2	-	-	2	5	22	23	-	-
R.I.	27	22	-	4	-	-	-	-	-	5	-	-	-	1
Conn.	86	116	8	6	-	-	-	-	-	3	20	16	1	2
MID. ATLANTIC	1,160	1,227	77	55	-	1	-	-	1	169	144	131	44	56
Upstate N.Y.	714	1,003	19	16	-	-	-	-	-	14	53	41	13	12
N.Y. City	10	2	30	14	-	1	-	-	1	3	15	21	5	-
N.J.	109	127	18	15	-	-	-	-	-	147	33	32	5	11
Pa.	327	95	10	10	-	-	-	-	-	5	43	37	21	33
E.N. CENTRAL	18	152	32	42	-	2	-	-	2	73	171	197	57	151
Ohio	14	7	2	5	-	-	-	-	-	10	57	49	19	22
Ind.	3	3	2	10	-	-	-	-	-	1	25	38	1	6
Ill.	-	7	21	15	-	-	-	-	-	44	49	66	19	96
Mich.	1	1	6	11	-	-	-	-	-	15	36	23	18	24
Wis.	-	134	1	1	-	2	-	-	2	3	4	21	-	3
W.N. CENTRAL	19	28	7	18	-	1	-	-	1	159	81	85	19	30
Minn.	-	-	3	5	-	-	-	-	-	-	16	8	2	4
Iowa	1	1	-	3	-	-	-	-	-	-	16	10	4	7
Mo.	4	24	3	7	-	1	-	-	1	158	29	40	10	17
N. Dak.	-	-	-	-	-	-	-	-	-	-	-	1	-	1
S. Dak.	-	-	-	-	U	-	U	-	-	-	3	6	-	-
Nebr.	-	-	1	2	-	-	-	-	-	1	7	8	3	1
Kans.	14	3	-	1	-	-	-	-	-	-	10	12	-	-
S. ATLANTIC	140	189	78	75	-	1	-	-	1	11	232	196	42	90
Del.	7	22	1	3	-	-	-	-	-	-	2	2	-	-
Md.	90	56	20	32	-	-	-	-	-	2	12	12	-	22
D.C.	-	1	8	7	-	-	-	-	-	-	1	2	-	-
Va.	10	20	14	9	-	-	-	-	-	2	28	29	13	23
W. Va.	12	5	1	-	-	-	-	-	-	-	4	9	-	3
N.C.	11	26	6	2	-	-	-	-	-	-	41	35	16	24
S.C.	5	1	-	2	-	-	-	-	-	-	32	6	6	5
Ga.	4	54	11	10	U	-	U	-	-	2	54	47	-	7
Fla.	1	4	17	10	-	1	-	-	1	5	58	54	7	6
E.S. CENTRAL	9	14	7	9	-	-	-	-	-	28	73	82	14	3
Ky.	1	10	-	4	-	-	-	-	-	-	25	21	-	-
Tenn.	5	3	2	4	-	-	-	-	-	28	12	21	4	3
Ala.	1	1	5	1	-	-	-	-	-	-	21	40	4	-
Miss.	2	U	-	U	-	-	-	-	-	U	15	U	6	U
W.S. CENTRAL	29	27	6	7	-	2	-	-	2	12	153	150	22	135
Ark.	2	-	2	-	-	2	-	-	2	1	17	23	2	4
La.	-	-	1	-	-	-	-	-	-	1	20	20	6	12
Okla.	13	17	-	2	-	-	-	-	-	-	18	12	-	21
Tex.	14	10	3	5	-	-	-	-	-	10	98	95	14	98
MOUNTAIN	2	1	23	16	-	39	-	1	40	112	108	99	17	23
Mont.	-	-	2	-	-	-	-	-	-	-	2	2	1	-
Idaho	-	1	1	2	-	-	-	-	-	-	5	13	2	4
Wyo.	-	-	-	-	-	-	-	-	-	-	5	5	-	1
Colo.	1	-	12	6	-	-	-	-	-	18	21	14	1	1
N. Mex.	-	-	3	2	-	28	-	-	28	-	23	10	N	N
Ariz.	-	-	2	1	-	10	-	-	10	-	41	37	4	4
Utah	-	-	2	4	-	-	-	1	1	94	4	14	2	7
Nev.	1	-	1	1	-	1	-	-	1	-	7	4	6	5
PACIFIC	21	32	84	113	-	100	1	4	104	35	291	317	105	115
Wash.	1	-	8	11	-	13	1	2	15	-	49	46	9	7
Oreg.	1	2	4	10	-	1	-	-	1	-	50	69	N	N
Calif.	19	30	64	84	-	86	-	1	87	33	186	197	87	98
Alaska	-	-	1	-	-	-	-	-	-	-	4	1	8	2
Hawaii	-	-	7	8	-	-	-	1	1	2	2	4	1	8
Guam	-	-	-	-	U	-	U	-	-	202	1	-	2	3
P.R.	-	-	-	-	4	7	-	-	7	11	12	5	-	2
V.I.	-	-	-	-	-	-	-	-	-	-	-	-	2	-
Amer. Samoa	-	-	-	-	-	-	-	-	-	-	-	-	-	1
C.N.M.I.	-	-	-	1	U	-	U	-	-	26	-	-	-	-

*For imported measles, cases include only those resulting from importation from other countries.
N: Not notifiable U: Unavailable -: no reported cases

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending May 20, 1995, and May 21, 1994 (20th Week)

Reporting Area	Pertussis			Rubella			Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal	
	1995	Cum. 1995	Cum. 1994	1995	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994
UNITED STATES	31	1,139	1,401	3	34	151	5,999	7,711	6,343	7,124	2,372	2,772
NEW ENGLAND	8	139	136	-	5	101	77	84	104	133	583	728
Maine	1	18	2	-	-	-	2	4	-	-	-	-
N.H.	3	12	33	-	1	-	1	1	5	6	79	84
Vt.	-	2	16	-	-	-	-	-	1	2	91	67
Mass.	4	100	75	-	1	101	30	30	63	62	250	275
R.I.	-	-	3	-	-	-	-	6	2	11	11	5
Conn.	-	7	7	-	3	-	44	43	33	52	152	297
MID. ATLANTIC	1	88	265	-	2	5	354	517	1,387	1,379	577	700
Upstate N.Y.	1	51	95	-	1	5	24	63	142	187	224	490
N.Y. City	-	18	52	-	1	-	187	263	759	834	-	-
N.J.	-	2	9	-	-	-	73	96	258	254	143	125
Pa.	-	17	109	-	-	-	70	95	228	104	210	85
E.N. CENTRAL	6	116	276	-	-	11	1,017	1,177	677	380	6	14
Ohio	1	38	62	-	-	-	358	431	108	93	1	-
Ind.	1	6	31	-	-	-	88	96	21	75	-	2
Ill.	-	23	96	-	-	6	396	410	380	23	2	3
Mich.	4	37	22	-	-	5	117	124	146	170	2	5
Wis.	-	12	65	-	-	-	58	116	22	19	1	4
W.N. CENTRAL	3	59	49	-	-	1	296	503	227	194	117	75
Minn.	3	28	20	-	-	-	18	20	45	41	4	8
Iowa	-	1	4	-	-	-	26	20	33	15	41	29
Mo.	-	5	13	-	-	1	243	427	85	92	12	8
N. Dak.	-	5	3	-	-	-	-	1	1	2	12	3
S. Dak.	U	7	-	U	-	-	-	-	16	9	22	11
Nebr.	-	3	3	-	-	-	-	5	6	7	-	-
Kans.	-	10	6	-	-	-	9	30	41	28	26	16
S. ATLANTIC	-	105	153	-	5	8	1,412	2,169	1,150	1,478	825	741
Del.	-	5	-	-	-	-	7	11	-	10	33	16
Md.	-	10	51	-	-	-	24	92	175	127	166	235
D.C.	-	2	3	-	-	-	47	102	38	40	5	2
Va.	-	7	15	-	-	-	272	286	61	132	155	161
W. Va.	-	-	2	-	-	-	1	8	39	35	38	32
N.C.	-	49	44	-	-	-	447	707	113	166	162	74
S.C.	-	11	8	-	-	-	270	280	124	161	50	69
Ga.	U	1	11	U	-	-	181	345	216	281	114	149
Fla.	-	20	19	-	5	8	163	338	384	526	102	3
E.S. CENTRAL	-	22	75	-	-	-	1,686	760	434	422	74	84
Ky.	-	-	52	-	-	-	86	90	53	120	8	5
Tenn.	-	2	13	-	-	-	316	387	162	141	11	33
Ala.	-	20	10	-	-	-	249	283	154	161	55	46
Miss.	-	-	U	-	-	U	1,035	U	65	U	-	U
W.S. CENTRAL	2	49	36	-	2	7	861	1,968	666	800	36	262
Ark.	-	-	4	-	-	-	181	212	62	68	11	14
La.	-	1	5	-	-	-	422	728	-	-	9	41
Okla.	-	9	20	-	-	4	23	57	1	93	16	17
Tex.	2	39	7	-	2	3	235	971	603	639	-	190
MOUNTAIN	6	396	133	1	4	2	95	132	225	186	40	48
Mont.	-	3	3	-	-	-	3	1	3	9	17	7
Idaho	2	72	23	-	-	-	-	1	6	6	-	-
Wyo.	-	-	-	-	-	-	2	-	1	1	13	10
Colo.	-	1	77	-	-	-	62	65	4	13	-	-
N. Mex.	-	19	6	-	-	-	2	5	26	26	-	-
Ariz.	2	288	14	-	3	-	16	32	115	88	9	30
Utah	2	9	10	1	1	2	3	7	10	-	-	-
Nev.	-	4	-	-	-	-	7	21	60	43	1	1
PACIFIC	5	165	278	2	16	16	201	401	1,473	2,152	114	120
Wash.	-	30	36	-	1	-	6	17	94	92	-	-
Oreg.	1	7	41	-	1	-	6	15	21	45	-	-
Calif.	-	114	197	2	13	15	188	367	1,263	1,893	110	90
Alaska	-	-	-	-	-	-	1	1	28	28	4	30
Hawaii	4	14	4	-	1	1	-	1	67	94	-	-
Guam	U	-	-	U	-	1	1	2	4	18	-	-
P.R.	1	6	2	-	-	-	112	126	56	62	18	39
V.I.	-	-	-	-	-	-	1	21	-	-	-	-
Amer. Samoa	-	-	1	-	-	-	-	-	2	2	-	-
C.N.M.I.	U	-	-	U	-	-	-	1	8	15	-	-

U: Unavailable -: no reported cases

TABLE III. Deaths in 121 U.S. cities,* week ending May 20, 1995 (20th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	624	412	119	61	8	24	33
Boston, Mass.	184	111	40	25	3	5	4
Bridgeport, Conn.	28	20	4	3	-	1	2
Cambridge, Mass.	22	18	3	1	-	-	1
Fall River, Mass.	22	19	2	1	-	-	-
Hartford, Conn.	56	37	11	5	2	1	2
Lowell, Mass.	20	15	3	2	-	-	3
Lynn, Mass.	18	14	3	1	-	-	2
New Bedford, Mass.	28	22	4	2	-	-	2
New Haven, Conn.	51	28	7	5	2	9	3
Providence, R.I.	70	47	12	9	-	2	5
Somerville, Mass.	5	4	-	1	-	-	-
Springfield, Mass.	28	17	9	1	-	1	-
Waterbury, Conn.	32	21	8	2	1	-	2
Worcester, Mass.	60	39	13	3	-	5	7
MID. ATLANTIC	2,050	1,361	375	244	38	32	84
Albany, N.Y.	56	44	5	2	3	2	4
Allentown, Pa.	26	21	3	-	2	-	-
Buffalo, N.Y.	U	U	U	U	U	U	U
Camden, N.J.	41	23	7	3	5	3	1
Elizabeth, N.J.	27	19	4	3	1	-	2
Erie, Pa.§	12	7	4	-	1	-	-
Jersey City, N.J.	43	31	7	3	1	1	-
New York City, N.Y.	1,344	865	260	182	18	19	35
Newark, N.J.	64	30	16	16	2	-	3
Paterson, N.J.	29	13	9	6	1	-	3
Philadelphia, Pa.	U	U	U	U	U	U	U
Pittsburgh, Pa.§	75	53	11	4	3	4	6
Reading, Pa.	16	12	2	2	-	-	1
Rochester, N.Y.	138	106	19	10	1	2	14
Schenectady, N.Y.	22	17	4	1	-	-	1
Scranton, Pa.§	34	28	5	1	-	-	2
Syracuse, N.Y.	73	61	10	2	-	-	6
Trenton, N.J.	37	19	9	8	-	1	6
Utica, N.Y.	13	12	-	1	-	-	-
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,307	1,453	421	247	124	61	124
Akron, Ohio	54	44	4	5	-	1	-
Canton, Ohio	35	29	4	-	-	2	3
Chicago, Ill.	491	212	93	101	70	15	11
Cincinnati, Ohio	74	49	16	5	3	1	10
Cleveland, Ohio	136	82	29	13	5	7	-
Columbus, Ohio	187	122	37	15	5	8	10
Dayton, Ohio	136	94	26	11	4	1	6
Detroit, Mich.	231	128	54	34	11	4	5
Evansville, Ind.	52	32	12	2	4	2	1
Fort Wayne, Ind.	79	54	16	3	5	1	8
Gary, Ind.	26	12	7	2	3	1	-
Grand Rapids, Mich.	71	54	9	3	1	4	6
Indianapolis, Ind.	229	153	42	22	7	5	20
Madison, Wis.	40	22	11	4	1	2	5
Milwaukee, Wis.	137	101	20	11	2	3	15
Peoria, Ill.	33	31	-	1	-	1	4
Rockford, Ill.	59	46	7	3	3	-	4
South Bend, Ind.	54	43	9	2	-	-	8
Toledo, Ohio	109	82	15	9	-	3	2
Youngstown, Ohio	74	63	10	1	-	-	6
W.N. CENTRAL	679	493	97	51	15	12	25
Des Moines, Iowa	58	48	7	3	-	-	2
Duluth, Minn.	35	29	5	-	-	1	2
Kansas City, Kans.	U	U	U	U	U	U	U
Kansas City, Mo.	106	70	17	7	-	1	2
Lincoln, Nebr.	22	13	5	3	-	1	1
Minneapolis, Minn.	203	150	28	17	7	1	9
Omaha, Nebr.	79	56	12	5	2	4	5
St. Louis, Mo.	120	88	12	14	5	1	2
St. Paul, Minn.	56	39	11	2	1	3	2
Wichita, Kans.	U	U	U	U	U	U	U

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
S. ATLANTIC	1,228	776	231	150	43	26	80
Atlanta, Ga.	151	96	36	9	2	8	5
Baltimore, Md.	201	122	39	30	6	4	21
Charlotte, N.C.	82	55	14	10	2	1	2
Jacksonville, Fla.	127	82	26	10	4	3	9
Miami, Fla.	113	64	18	24	6	1	-
Norfolk, Va.	53	32	13	4	1	3	4
Richmond, Va.	67	33	14	15	4	1	4
Savannah, Ga.	42	31	6	3	1	1	5
St. Petersburg, Fla.	53	42	7	2	2	-	3
Tampa, Fla.	189	142	27	13	6	1	21
Washington, D.C.	143	72	31	28	9	3	6
Wilmington, Del.	7	5	-	2	-	-	-
E.S. CENTRAL	680	420	155	63	25	16	32
Birmingham, Ala.	100	69	19	6	5	-	2
Chattanooga, Tenn.	58	35	13	7	3	-	3
Knoxville, Tenn.	84	54	22	6	2	-	-
Lexington, Ky.	63	39	15	7	2	-	6
Memphis, Tenn.	151	93	33	13	8	4	9
Mobile, Ala.	53	30	13	6	-	4	4
Montgomery, Ala.	43	23	7	10	-	3	1
Nashville, Tenn.	128	77	33	8	5	5	7
W.S. CENTRAL	1,413	877	293	166	53	24	93
Austin, Tex.	78	45	15	10	5	3	5
Baton Rouge, La.	12	9	2	1	-	-	-
Corpus Christi, Tex.	55	41	7	5	1	1	4
Dallas, Tex.	180	103	35	30	7	5	7
El Paso, Tex.	88	62	13	7	4	2	9
Ft. Worth, Tex.	104	60	16	16	8	4	4
Houston, Tex.	353	204	83	50	10	6	30
Little Rock, Ark.	66	42	16	7	-	1	3
New Orleans, La.	112	62	28	15	7	-	-
San Antonio, Tex.	192	133	41	11	6	1	18
Shreveport, La.	72	50	15	4	3	-	8
Tulsa, Okla.	101	66	22	10	2	1	5
MOUNTAIN	867	586	162	78	24	17	49
Albuquerque, N.M.	92	62	18	9	1	2	4
Colo. Springs, Colo.	54	35	12	3	3	1	4
Denver, Colo.	98	65	17	10	3	3	3
Las Vegas, Nev.	163	111	30	20	2	-	9
Ogden, Utah	27	21	4	1	1	-	3
Phoenix, Ariz.	178	109	34	18	9	8	9
Pueblo, Colo.	23	18	3	-	2	-	1
Salt Lake City, Utah	85	59	15	7	1	3	9
Tucson, Ariz.	147	106	29	10	2	-	7
PACIFIC	2,074	1,364	359	245	56	33	160
Berkeley, Calif.	14	11	2	-	1	-	-
Fresno, Calif.	118	63	34	11	6	4	8
Glendale, Calif.	28	19	2	4	3	-	-
Honolulu, Hawaii	72	57	9	2	1	3	8
Long Beach, Calif.	67	42	11	10	1	3	8
Los Angeles, Calif.	643	406	117	96	20	1	26
Pasadena, Calif.	28	17	4	4	2	1	1
Portland, Oreg.	117	82	16	12	3	4	5
Sacramento, Calif.	201	139	31	20	6	4	21
San Diego, Calif.	125	83	19	15	4	4	16
San Francisco, Calif.	154	76	35	28	-	2	24
San Jose, Calif.	177	135	26	12	1	3	21
Santa Cruz, Calif.	25	19	3	3	-	-	5
Seattle, Wash.	145	101	25	14	5	-	4
Spokane, Wash.	62	42	8	8	3	1	6
Tacoma, Wash.	98	72	17	6	-	3	7
TOTAL	11,922¶	7,742	2,212	1,305	386	245	680

*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.
U: Unavailable -: no reported cases

Tuberculosis — Continued

reported results of drug-susceptibility testing for ≥75% of cases, and information about HIV infection was provided for only approximately one third of case reports. To measure accurately the proportion of TB cases attributable to HIV infection and to ensure the optimal provision of services to HIV-infected persons with TB infection and disease, the Advisory Committee for the Elimination of Tuberculosis has recommended that all patients in whom TB has been diagnosed should be offered counseling and HIV testing and that all HIV-infected persons, with or without AIDS, should be given a tuberculin skin test (*7*). Collaborative efforts involving state and local TB and HIV/AIDS surveillance programs are needed to establish guidelines to preserve confidentiality to ensure that HIV-test results for reported TB cases are shared between programs and that this information is reported to CDC to aid in characterizing TB morbidity in these and other risk groups.

In 1994, the number and proportion of foreign-born persons with TB increased substantially; approximately one third of these persons were in the United States <1 year before diagnosis. Detection and treatment of TB among immigrants and refugees requires improved screening efforts and prompt reporting to state and local public health authorities. Local TB-control programs may need to ensure appropriate testing, prophylaxis, and treatment for immigrants and refugees from countries where TB incidence rates are high (*8*).

Maintaining the decline in TB morbidity and reaching the goal of eliminating TB in the United States will require sustained prevention and control efforts—especially rapid diagnosis and ensured completion of treatment (e.g., DOT), and prompt and complete reporting. Implementation of recommended infection-control measures in hospitals can prevent nosocomial transmission of *M. tuberculosis* (*9*). In addition, tuberculin screening programs that target persons at highest risk (especially close contacts of persons with active cases) ensure the most effective use of limited resources and appropriate use of preventive therapy.

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Vaccination Coverage Levels Among Children Aged 19–35 Months — United States, April–June 1994

A national health objective for the year 2000 is to increase to at least 90% the proportion of children aged 2 years who have received the complete series of routinely recommended childhood vaccinations (objective 20.11) (*1*). To assist in achieving the year 2000 objective, the Childhood Immunization Initiative (CII) was begun to increase vaccination coverage levels among preschool-aged children and to reduce or eliminate vaccine-preventable diseases in the United States by 1996 (*2*). Vaccination coverage goals were established for each routinely recommended vaccination. In addition, interim goals for 1994 and 1995* were established to assist in monitoring progress toward CII's 1996 goals. This report presents national estimates of vaccination coverage among children aged 19–35 months derived from provisional data from CDC's National Health Interview Survey (NHIS) for the second quarter of 1994 (April–June; the most recent period for which data were available), compares these data with the previous three quarters, and summarizes progress toward the CII's interim goals for 1994.

NHIS is an annual cross-sectional household interview survey of the civilian, noninstitutionalized U.S. population (*3*). An Immunization Supplement was added to NHIS in 1992 to collect data about vaccinations among children aged <6 years. Vaccination information is obtained from vaccination records; for children for whom no vaccination records are available, information is based on parental recall. Quarterly estimates are based on sample sizes ranging from 483 to 622 per quarter. Respondents surveyed during the second quarter of 1994 provided information for their children who were born during May 1991–November 1992; the median age of the children was 27 months. For the last two quarters in 1993, 37% of NHIS respondents used a vaccination record for reporting vaccination information. In the first and second quarters of 1994, 52% and 49% of respondents, respectively, used a vaccination record. The analysis excluded respondents (range: 12%–16%) who reported not knowing whether their children had received a particular vaccination or not knowing the number of doses the child had received. Confidence intervals (CIs) were calculated using the Software for Survey Data Analysis (SUDAAN).

During the second quarter of 1994, vaccination coverage levels among children aged 19–35 months for the most critical doses in the 1996 objectives ranged from 75.6% (three or more doses of *Haemophilus influenzae* type b vaccine [Hib]) to 91.6% (one dose of measles-containing vaccine [MCV]) (Table 1). The coverage level for hepatitis B vaccine (Hep B) was 29.4%. For the combined series of four doses of diphtheria and tetanus toxoids and pertussis vaccine (DTP), three doses of poliovirus vaccine, and one dose of MCV, coverage was 67.7%; for the combined series that includes at least three doses of Hib, coverage was 60.2%.

Quarterly levels of coverage with three doses of Hib increased significantly from the third quarter of 1993 to the second quarter of 1994, from 53.1% to a record high

*For 1994: 85% coverage for three or more doses of diphtheria and tetanus toxoids and pertussis vaccine (DTP) and one dose of measles-mumps-rubella vaccine (MMR), 75% coverage for three or more doses each of poliovirus vaccine and *Haemophilus influenzae* type b vaccine (Hib), and 30% coverage for three or more doses of hepatitis B vaccine (Hep B). For 1995: 87% coverage for three or more doses of DTP, 85% coverage for three or more doses each of poliovirus vaccine and Hib, 90% coverage for one dose of MMR, and 50% coverage for three or more doses of Hep B.

TABLE 1. Vaccination coverage levels among children aged 19–35 months, by selected vaccines — United States, third and fourth quarters 1993 and first and second quarters 1994

	July–September 1993		October–December 1993		January–March 1994		April–June 1994	
Vaccine/Dose	**%**	**(95% CI*)**	**%**	**(95% CI)**	**%**	**(95% CI)**	**%**	**(95% CI)**
DTP/DT†								
≥3 Doses	89.9	(86.9%–93.0%)	88.1	(84.6%–91.5%)	87.0	(83.2%–90.8%)	90.2	(87.5%–92.9%)
≥4 Doses	74.8	(69.9%–79.7%)	71.6	(66.4%–76.7%)	67.2	(62.8%–71.7%)	70.4	(66.5%–74.4%)
Poliovirus								
≥3 Doses	80.4	(75.8%–84.9%)	78.5	(73.9%–83.0%)	76.0	(71.9%–80.2%)	80.0	(76.8%–83.2%)
***Haemophilus influenzae* type b§ (Hib)**								
>3 Doses	60.3	(55.0%–65.7%)	58.3	(53.1%–63.5%)	70.6	(65.9%–75.3%)	75.6	(71.8%–79.4%)
Measles-containing vaccine (MCV)	85.9	(82.0%–89.8%)	86.9	(83.3%–90.5%)	89.6	(87.0%–92.2%)	91.6	(89.1%–94.1%)
Hepatitis B¶								
>3 Doses	15.7	(12.1%–19.2%)	22.5	(17.8%–27.1%)	25.5	(20.2%–30.8%)	29.4	(25.0%–33.8%)
Combined series								
3 DTP/3 Polio/ 1 MCV**	78.7	(74.2%–83.2%)	74.3	(69.4%–79.2%)	75.5	(71.1%–80.0%)	77.9	(74.6%–81.2%)
4 DTP/3 Polio/ 1 MCV††	71.6	(66.7%–76.4%)	66.4	(61.1%–71.7%)	66.0	(61.4%–70.6%)	67.7	(63.9%–71.5%)
4 DTP/3 Polio/ 1 MCV/3 Hib§§		—		—	57.0	(52.0%–62.0%)	60.2	(56.1%–64.4%)

*Confidence interval.
† Diphtheria and tetanus toxoids and pertussis vaccine/Diphtheria and tetanus toxoids.
§ January–March 1994 was the first time all surveyed children were born after the recommendation for universal vaccination with this vaccine.
¶ Children born after the recommendation for universal vaccination varied by quarter: 12% for July–September 1993, 29% for October–December 1993, 47% for January–March, and 65% for April–June 1994.
** Three doses of DTP/DT, three doses of poliovirus vaccine, and one dose of MCV.
†† Four doses of DTP/DT, three doses of poliovirus vaccine, and one dose of MCV.
§§ Four doses of DTP/DT, three doses of poliovirus vaccine, one dose of MCV, and three doses of Hib.

Vaccination Coverage Levels — Continued

level of 75.6%; coverage with Hep B increased from 15.7% during third quarter 1993 to 29.4% during second quarter 1994. Quarterly levels during the previous four quarters (April 1993–March 1994) were statistically unchanged for the combined series and for DTP, poliovirus vaccine, and MCV.

Reported by: Assessment Br, Data Management Div, National Immunization Program; Div of Health Interview Statistics, National Center for Health Statistics, CDC.

Editorial Note: Based on the most recent NHIS data available, the findings in this report document statistically significant increases and record high levels in national vaccination coverage with Hib and with Hep B during April–June 1994. In addition, during that period, coverage was at or near the highest levels ever recorded for three doses of DTP, three doses of poliovirus vaccine, one dose of MCV, and for the combined series.

The quarterly NHIS data also indicated that the 1994 interim goals of the CII were attained during April–June 1994 for all vaccines except Hep B; however, for annual coverage levels for these vaccines to meet the 1994 goals, coverage would have had to be maintained for the remainder of the year. Although only 65% of the children during the second quarter of 1994 were required to receive Hep B (recommendations for universal hepatitis B vaccination of infants became effective in November 1991), coverage with Hep B was still within one percentage point of the 1994 goal. Because future estimates based on NHIS quarterly data will include a progressively larger proportion of children required to receive Hep B, quarterly coverage levels are expected to increase for the remainder of 1994.

Based on the findings in this report, as of April–June 1994, only 60% of children aged 19–35 months had received the recommended number of doses for the combined series of DTP, poliovirus vaccine, MCV, and Hib. To assist in achieving the year 2000 national health objective of 90% coverage with the complete series of routinely recommended vaccinations, increased efforts are needed to vaccinate all children (*4,5*).

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Update: Outbreak of Ebola Viral Hemorrhagic Fever — Zaire, 1995

On May 6, 1995, CDC was notified by health authorities and the U.S. Embassy in Zaire of an outbreak of viral hemorrhagic fever in the Kikwit area of Bandundu region, Zaire (*1*). On May 10, testing of blood specimens from ill patients confirmed that the outbreak was caused by Ebola virus. Through May 24, the investigation of this outbreak by public health authorities has identified a total of 144 persons with viral hemorrhagic fever, including 108 (75%) deaths, in the city of Kikwit and the surrounding area. The median age of ill persons was 37 years (range: 9 months–71 years); 70 were male, 68 were female, and six were of unknown sex.

Reported by: M Musong, MD, Minister of Health, Kinshasa; T Muyembe, MD, Univ of Kinshasa; K Mungala, MD, Kikwit General Hospital. Technical Scientific International Coordinating Committee, Kikwit, Zaire. Médecins Sans Frontières, Belgium. Div of Viral and Rickettsial Diseases, and Div of Quarantine, National Center for Infectious Diseases; International Health Program Office, CDC.

Editorial Note: From May 17 (when this outbreak was first reported in *MMWR* [*1*]) though May 24, the investigation identified an additional 51 cases of suspected Ebola hemorrhagic fever (EHF) in Zaire. The incubation period for EHF ranges from 2 days to 21 days (*2*); because the outbreak investigation and control measures were initiated on May 10, new cases may represent persons who were exposed to the virus before the institution of the control measures. The ongoing investigation is assessing the effectiveness of these control measures in interrupting transmission, which is believed to result principally from direct contact with ill persons or their blood or body fluids.

Because of the length of the incubation period for EHF, the potential exists for persons with incubating illness to travel from the outbreak-affected area to the United States. To minimize the potential for spread of Ebola virus to the United States, precautionary measures have been instituted, under the provisions of the Foreign Quarantine Regulations,* including 1) issuance of a travel advisory by the U.S. Department of State and an advisory memorandum by CDC distributed to state and local health departments, other federal government agencies, airlines, travel agents, and travel clinics; 2) with the assistance of the U.S. Immigration and Naturalization Service, distribution of the routine Health Alert Notice to all passengers arriving in the United States from Europe and Africa; and 3) distribution of an Ebola Virus Hemorrhagic Fever Alert Notice (EVHFN) to any travelers who have recently been in Zaire—EVHFN instructs these travelers to contact a health-care provider if they develop a febrile illness during the 3 weeks after they arrive in the United States.

CDC maintains a hotline providing updates on the outbreak of EHF in Zaire (telephone [800] 900-0681).

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*42 CFR, Part 71.

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