

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

- 233 World Health Day — April 7, 1995
- 234 Mass Vaccination with Oral Poliovirus Vaccine — Asia and Europe, 1995
- 237 Diphtheria Acquired by U.S. Citizens in the Russian Federation and Ukraine — 1994
- 244 Vaccination Coverage Surveys in County Health Departments — Kansas, 1993–1994
- 247 Notices to Readers

World Health Day — April 7, 1995

“Target 2000—A World Without Polio” is the theme for the annual World Health Day on April 7, 1995 (1). In 1988, the World Health Organization (WHO) established as an objective the global eradication of poliomyelitis by the year 2000 (2). Progress toward this goal has included the elimination of endemic polio from the Western Hemisphere and the global reduction in reported polio by more than 70% since 1988—achievements that also have underscored the feasibility of eradicating this disease. In addition, strategies recommended by WHO for achieving polio eradication have been implemented in many countries with endemic polio (3). For example, the number of countries with endemic polio that have conducted National Immunization Days (NIDs) increased from 15 in 1988 to approximately 36 in 1995; an additional 25 countries are planning to conduct NIDs later this year. The global partnership among governments and organizations working toward this common goal includes polio-endemic countries, WHO, Rotary International, United Nations Children’s Fund (UNICEF), the International Development Banks, and the governments of Australia, Canada, Japan, and the United States. On World Health Day, a program will be conducted in Washington, D.C., by the Pan American Health Organization and the WHO Regional Office for the Americas.

Additional information about the global polio eradication initiative is available from WHO headquarters in Geneva, the regional offices of WHO, and CDC.

Reported by: Special Program for Vaccines and Immunization, Pan American Health Organization, Washington, DC; Global Program for Vaccines and Immunization, World Health Organization, Geneva. Respiratory and Enterovirus Br, National Center for Infectious Diseases; International Health Program Office; Polio Eradication Activity, National Immunization Program, CDC.

References

1. Global Program for Vaccines and Immunization, World Health Organization. World Health Day 1995 information kit. Geneva: World Health Organization, January 1995.
2. World Health Assembly. Global eradication of poliomyelitis by the year 2000. Geneva: World Health Organization, 1988. (Resolution WHA41.28).
3. Hull HF, Ward NA, Hull BP, Milstien JB, de Quadros C. Paralytic poliomyelitis: seasoned strategies, disappearing disease. *Lancet* 1994;343:1331–7.

Mass Vaccination with Oral Poliovirus Vaccine — Asia and Europe, 1995

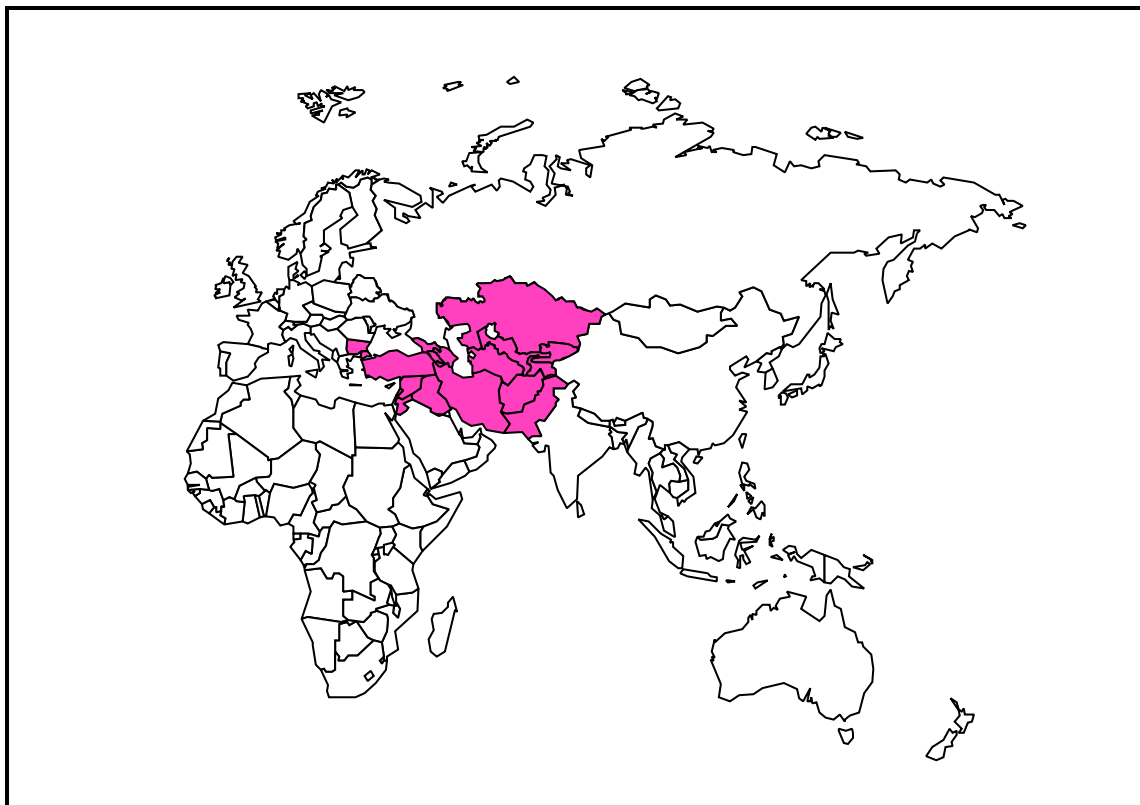
The theme of World Health Day, April 7, 1995, is "Target 2000—A World Without Polio" (1). In conjunction with World Health Day activities, 18 geographically contiguous countries in Europe, Central and South Asia, and the Middle East are conducting coordinated National Immunization Days (NIDs)* with oral poliovirus vaccine (OPV) (Figure 1). The World Health Organization (WHO) has designated this effort "Operation MECACAR" (MEDiterranean, CAucasus, and Central Asian Republics). This report describes the efforts of this campaign and summarizes polio surveillance data for 1994.

To maximize the geographic area covered and the number of children targeted simultaneously for mass vaccination with OPV, Operation MECACAR has been committed to by adjoining countries in Europe (Armenia, Azerbaijan, Bulgaria, Georgia, and Turkey), Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan), South Asia (Pakistan), and the Middle East (Afghanistan, Iran, Iraq, Jordan, Lebanon, Syria, and one national identity [Palestine†]). Approximately 56 million children aged <5 years have been targeted to receive two doses each of OPV (Table 1).

*Mass campaigns over a short period (days to weeks) in which two doses of oral poliovirus vaccine are administered to all children in the target group, regardless of prior vaccination history, with an interval of 4–6 weeks between doses.

†Includes the territories of Gaza, Jericho, and the West Bank.

FIGURE 1. Area of oral poliovirus vaccination during World Health Day — Asia and Europe, 1995



OPV Mass Vaccination — Continued

TABLE 1. Features of the coordinated National Immunization Days (NIDs) — Operation MECACAR, 1995

Feature	World Health Organization regions		
	EURO*	EMRO†	Total
No. participating countries	10	8	18
Target population aged <5 years (millions)	18	38	56
Doses of oral poliovirus vaccine required (millions)	45	95	140
Months of NIDs (no. countries [§])			
March	1	5	6
April	10	7	17
May	9	4	13

*European Region (includes Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkey, Turkmenistan, and Uzbekistan).

†Eastern Mediterranean Region (includes Afghanistan, Iran, Iraq, Jordan, Lebanon, Pakistan, Syria, and one national identity [Palestine, which includes the territories of Gaza, Jericho, and the West Bank]).

§Each country has two scheduled rounds of NIDs.

Efforts have been planned and will be coordinated under the direction of both the European Regional Office (EURO) and the Eastern Mediterranean Regional Office (EMRO) of WHO.

Participating countries in each region have provisionally reported a high proportion of the total polio cases in their respective regions in 1994. In EURO, participating countries reported 200 (95%) of the 211 cases reported in the region, including Uzbekistan with 117 cases; Tajikistan, 28; Turkey, 23; Azerbaijan, 17; Turkmenistan, six; Armenia, five; and Kazakhstan, four. Participating countries in EMRO reported 669 (69%) of the 973 cases reported in the region, including Pakistan with 520; Iran, 80; Iraq, 63; Jordan, four; and Lebanon, two.

Some of the countries in these regions previously have conducted NIDs, including Azerbaijan (1993 and 1994), Lebanon (1994), Iran (1994), Syria (1993 and 1994), Pakistan (1994), and Uzbekistan (1994), while others conducted subnational immunization days. Based on the desirability of scheduling mass vaccination campaigns simultaneously and during the low polio incidence season, either the first round (EURO) or the second round (EMRO) of NIDs has been scheduled during March 24–April 29. Countries participating in Operation MECACAR are planning to repeat NIDs in 1996 and 1997.

Reported by: Regional Office for Europe, Copenhagen; Regional Office for Eastern Mediterranean Region, Alexandria, Egypt; Global Program for Vaccines and Immunization, World Health Organization, Geneva. Respiratory and Enterovirus Br, National Center for Infectious Diseases; International Health Program Office; Polio Eradication Activity, National Immunization Program, CDC.

Editorial Note: Since 1988, when the World Health Assembly (the governing body of WHO) adopted the goal of global polio eradication by the year 2000 (2), substantial progress has been made toward this goal. In particular, during 1994 the Western Hemisphere was certified free of wild poliovirus by an international certification commission (3). From 1988 through 1994, reported polio declined 82%, with particular progress in the Western Pacific Region of WHO, including China (4), Philippines (5),

OPV Mass Vaccination — Continued

and Vietnam (6); polio-free zones are emerging in Western Europe, Southern and Northern Africa, and the Arabian Peninsula (7).

The coordinated effort to vaccinate approximately 56 million children aged <5 years in 18 countries represents one of the largest public health events in history (4,8). Operation MECACAR will entail cooperation between countries with dramatically different political systems, economic organization, cultures, and religions. In particular, efforts include negotiations to curtail hostilities and, in countries with internal conflict or civil wars, to secure cease-fires during the vaccination campaigns. To ensure the success of previous NIDs, similar arrangements had been mediated in countries of the Americas (9) and in Philippines (5).

Reported polio incidence in the European Region stabilized during the 1990s with approximately 200 cases reported each year. Consequently, further reductions in polio incidence and the elimination of poliovirus from the remaining polio-endemic countries will require supplementary vaccination activities, including NIDs. In the Eastern Mediterranean Region, substantial decreases in polio incidence have been achieved since 1988; however, approximately 2500 cases of polio were reported in 1993, and approximately 1000 cases were provisionally reported in 1994. Synchronized NIDs, if effectively implemented (i.e., vaccination of >90% of the target population) and repeated as planned in 1996 and 1997, should decrease the incidence of polio substantially in these countries.

The technical basis for achieving worldwide polio eradication already exists; persistent impediments to the eradication objective for the year 2000 include insufficient political will and inadequate resources. Operation MECACAR is supported by a coalition of organizations that includes WHO, United Nations Children's Fund (UNICEF), other bilateral and multilateral organizations, and Rotary International, which provided the funds for the OPV vaccine needed by member countries of the European Region to conduct NIDs in 1995.

References

1. CDC. World Health Day—April 7, 1995. *MMWR* 1995;44:233.
2. World Health Assembly. Global eradication of poliomyelitis by the year 2000. Geneva: World Health Organization, 1988. (Resolution WHA41.28).
3. CDC. Certification of poliomyelitis eradication—the Americas, 1994. *MMWR* 1994;43:720–2.
4. CDC. Progress toward poliomyelitis eradication—People's Republic of China, 1990–1994. *MMWR* 1994;43:857–9.
5. CDC. National immunization days and status of poliomyelitis eradication—Philippines, 1993. *MMWR* 1994;43:6–7,13.
6. CDC. Progress toward poliomyelitis eradication—Socialist Republic of Vietnam, 1991–1993. *MMWR* 1994;43:387–91.
7. CDC. Progress toward global eradication of poliomyelitis, 1988–1991. *MMWR* 1993;42:486–7,493–5.
8. Pan American Health Organization. Measles elimination by the year 2000. *EPI Newsletter* 1994;6:1–2.
9. deQuadros CA, Andrus JK, Olive JM, de Macedo CG. Polio eradication from the Western hemisphere. *Ann Rev Public Health* 1992;13:239–52.

Diphtheria Acquired by U.S. Citizens in the Russian Federation and Ukraine — 1994

Epidemic diphtheria has reemerged in 14 of the 15 New Independent States (NIS) of the former Soviet Union (1); during 1994, a provisional total of 47,802 cases and 1746 deaths from diphtheria were reported throughout the NIS. This report describes one confirmed and one probable case of diphtheria acquired in countries where the disease is epidemic (Russian Federation and Ukraine) by U.S. citizens during November and December 1994.

Patient 1. A 42-year-old woman, born in Russia but living in the United States for several years, arrived in Moscow on November 22. She had onset of fever and sore throat on December 6 and was hospitalized on December 7 with a provisional diagnosis of diphtheria. Her vaccination history was unknown, and she was not aware of contact with diphtheria patients or carriers. She was treated with 9000 international units (IU) of equine diphtheria antitoxin, antibiotics, and prednisone. On December 8, she was transferred to a referral hospital in Helsinki; findings on examination included a pharyngeal membrane. Treatment included administration of 40,000 IU of antitoxin, penicillin G (for 6 days), and several days of roxithromycin. Toxigenic *C. diphtheriae*, biotype *gravis*, was isolated from a pharyngeal culture obtained December 9. Follow-up cultures on December 12 and 15 were negative. Her antitoxin level was measured in Helsinki by Vero cell neutralization assay and was >5 IU/mL; however, the level measured by an enzyme immunoassay that is specific for human antibodies was <0.03 IU/mL, indicating that the Vero cell assay was detecting recently administered equine antitoxin. She recovered fully without complications.

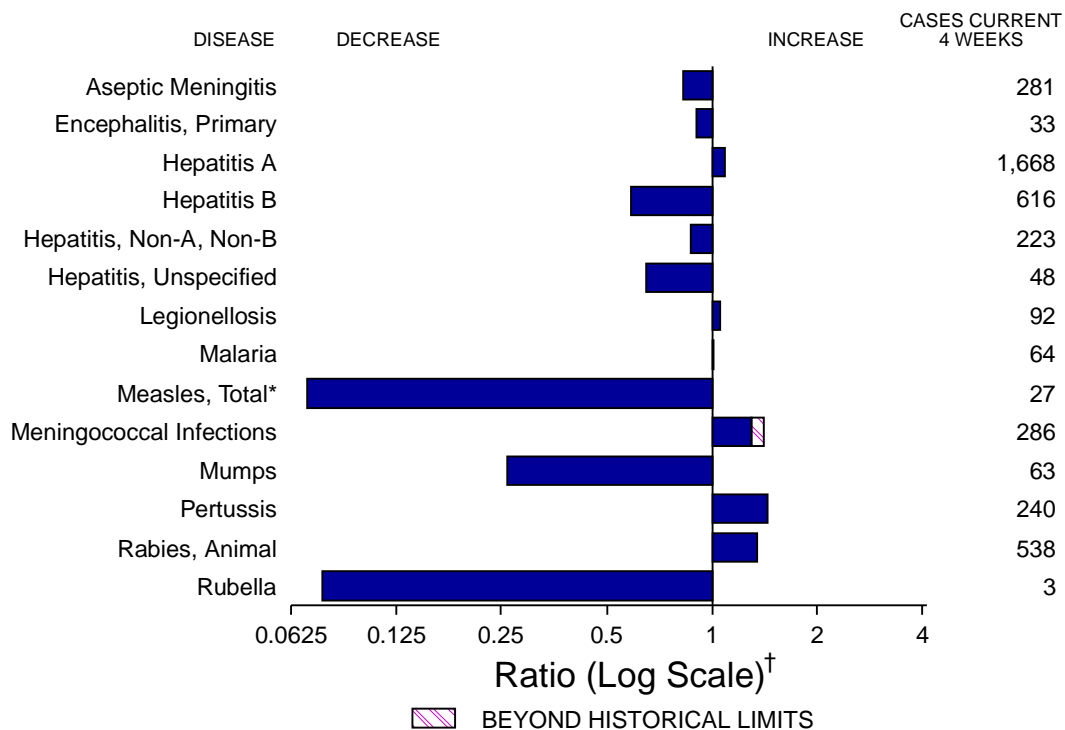
Patient 2. On November 28, a 22-year-old woman from New Jersey working in Kherson in southern Ukraine since June 1994 had onset of a sore throat; she was hospitalized on November 29 with a provisional diagnosis of diphtheria. She had received five doses of diphtheria and tetanus toxoids and pertussis vaccine (DTP) during childhood and an adult formulation tetanus and diphtheria toxoids (Td) booster in August 1991. She had no recognized contact with a known diphtheria patient or carrier. Findings on examination included a tonsillar and posterior pharyngeal membrane. The patient had treated herself with ciprofloxacin for 1 day and had had at least one dose of oral penicillin before a throat culture was obtained (the culture was negative). Treatment comprised 80,000 IU of diphtheria antitoxin and a course of parenteral penicillin. A diphtheria antitoxin level of 0.2 IU/mL by Vero cell neutralization assay was detected in both a blood specimen obtained at the time of her arrival in Ukraine in June 1994 and a convalescent sample. She recovered fully without complications.

Reported by: J Vuopio-Varkila, MD, R-M Olander, MSc, National Public Health Institute; V Valtonen, MD, Helsinki Univ Central Hospital, Helsinki, Finland. R Crooks, MD, C Stewart, Office of Medical Svcs, Peace Corps, Washington, DC. Childhood and Respiratory Diseases Br, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; Child Vaccine Preventable Diseases Br, Div of Epidemiology and Surveillance, National Immunization Program, CDC.

Editorial Note: Diphtheria is a potentially severe illness; among persons who are unvaccinated, the case-fatality rate ranges from 5% to 10%. The disease is rare in the United States: since 1980, five or fewer cases have been reported each year, and since 1988, all reported culture-confirmed cases have been imported. However, based on serologic studies, 20%–60% of U.S. adults aged >20 years are susceptible to diphtheria

(Continued on page 243)

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending March 25, 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 March 25, 1995 (12th Week)

	Cum. 1995		Cum. 1995
Anthrax	-	Plague	-
Aseptic Meningitis	967	Poliomyelitis, Paralytic	-
Brucellosis	12	Psittacosis	9
Cholera	-	Rabies, human	1
Congenital rubella syndrome	2	Rocky Mountain Spotted Fever	24
Diphtheria	-	Syphilis, congenital, age < 1 year [†]	-
Encephalitis, primary	105	Tetanus	5
Encephalitis, post-infectious	19	Toxic shock syndrome	43
<i>Haemophilus influenzae</i> *	340	Trichinosis	7
Hansen Disease	23	Tularemia	5
Hepatitis, unspecified	93	Typhoid fever	60
Leptospirosis	12		

*Of 335 cases of known age, 82 (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 March 25, 1995, and March 26, 1994 (12th Week)

Reporting Area	AIDS*	Gonorrhea		Hepatitis (Viral), by type						Legionellosis	
				A		B		NA,NB			
				Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994		
UNITED STATES	11,161	79,969	85,933	5,209	4,693	1,705	2,736	680	1,019	261	331
NEW ENGLAND	521	1,272	1,874	35	66	46	96	21	35	4	4
Maine	15	20	14	6	9	2	2	-	-	-	-
N.H.	12	28	18	1	3	5	5	1	4	-	-
Vt.	2	7	6	-	-	1	4	-	4	-	-
Mass.	294	728	702	14	30	12	67	20	20	3	1
R.I.	31	138	98	7	12	7	2	-	7	1	3
Conn.	167	351	1,036	7	12	19	16	-	-	N	N
MID. ATLANTIC	2,980	8,408	10,436	248	324	159	320	79	130	26	35
Upstate N.Y.	249	1,131	2,000	59	85	55	88	31	59	6	9
N.Y. City	1,592	2,814	4,212	110	134	36	66	1	1	-	-
N.J.	690	1,036	1,329	45	67	36	89	37	58	6	6
Pa.	449	3,427	2,895	34	38	32	77	10	12	14	20
E.N. CENTRAL	1,138	18,433	15,602	726	485	189	329	47	96	75	130
Ohio	238	6,119	5,767	487	132	21	46	2	2	37	47
Ind.	80	1,881	1,825	39	89	48	56	-	3	16	45
Ill.	535	5,064	2,544	76	147	20	83	8	31	4	7
Mich.	222	4,575	3,902	89	65	97	88	37	60	12	21
Wis.	63	794	1,564	35	52	3	56	-	-	6	10
W.N. CENTRAL	242	4,508	5,078	199	219	107	142	19	12	29	25
Minn.	66	705	810	12	34	5	10	-	1	-	-
Iowa	14	372	318	10	7	12	8	2	2	7	16
Mo.	99	2,695	2,790	138	122	74	109	13	2	21	4
N. Dak.	-	3	5	4	1	1	-	-	-	-	2
S. Dak.	-	43	28	3	9	1	-	1	-	-	-
Nebr.	20	-	327	9	32	5	3	-	3	-	2
Kans.	43	690	800	23	14	9	12	3	4	1	1
S. ATLANTIC	2,676	24,537	23,547	264	289	285	623	69	218	43	69
Del.	69	477	401	3	7	1	3	1	1	-	-
Md.	357	3,246	4,262	48	47	51	86	3	12	11	16
D.C.	142	1,167	1,553	2	8	8	13	-	-	3	-
Va.	238	2,447	3,101	54	33	28	26	-	13	2	2
W. Va.	13	155	171	7	3	14	6	14	8	3	1
N.C.	161	5,734	5,968	25	25	82	78	17	15	7	6
S.C.	168	2,728	2,961	5	7	8	11	-	-	6	1
Ga.	361	3,707	U	35	21	24	293	9	141	5	30
Fla.	1,167	4,876	5,130	85	138	69	107	25	28	6	13
E.S. CENTRAL	393	9,504	7,547	110	103	111	301	91	203	5	16
Ky.	38	1,179	1,055	11	60	13	32	4	5	1	3
Tenn.	172	1,180	2,832	49	31	68	251	86	196	1	9
Ala.	104	5,098	3,660	38	12	30	18	1	2	2	4
Miss.	79	2,047	U	12	U	-	U	-	U	1	U
W.S. CENTRAL	919	7,593	9,281	502	584	225	244	103	70	3	8
Ark.	45	681	1,745	17	8	2	5	-	1	-	1
La.	170	2,796	3,205	15	17	16	26	17	17	1	-
Okla.	59	378	728	112	52	86	80	80	43	2	7
Tex.	645	3,738	3,603	358	507	121	133	6	9	-	-
MOUNTAIN	430	1,926	4,546	1,032	841	143	130	104	86	52	26
Mont.	7	24	28	14	8	4	5	4	-	2	9
Idaho	16	34	16	112	84	19	20	11	32	1	-
Wyo.	3	10	25	33	5	2	5	40	17	-	1
Colo.	187	729	772	143	103	23	26	20	19	16	4
N. Mex.	34	265	238	220	243	51	41	14	5	1	1
Ariz.	86	703	2,965	202	261	20	16	9	4	25	1
Utah	30	39	77	273	94	17	7	3	5	2	-
Nev.	67	122	425	35	43	7	10	3	4	5	10
PACIFIC	1,862	3,788	8,022	2,093	1,782	440	551	147	169	24	18
Wash.	148	51	734	109	241	33	58	40	62	-	5
Oreg.	74	18	263	374	95	21	15	7	2	-	-
Calif.	1,549	3,372	6,651	1,557	1,376	379	456	91	102	21	12
Alaska	29	212	195	14	59	2	5	1	-	-	-
Hawaii	62	135	179	39	11	5	17	8	3	3	1
Guam	-	12	34	-	1	-	-	-	-	-	1
P.R.	596	119	117	12	11	153	53	147	15	-	-
V.I.	-	3	8	-	-	1	1	-	-	-	-
Amer. Samoa	-	8	7	4	2	-	-	-	-	-	-
C.N.M.I.	-	2	15	1	1	-	-	-	-	-	-

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 February 23, 1995.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending March 25, 1995, and March 26, 1994 (12th Week)

Reporting Area	Lyme Disease		Malaria		Measles (Rubeola)						Meningococcal Infections		Mumps	
	Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994	Indigenous		Imported*		Total		Cum. 1995	Cum. 1994	Cum. 1995	Cum. 1994
					1995	Cum. 1995	1995	Cum. 1995	Cum. 1995	Cum. 1994				
UNITED STATES	640	842	200	246	14	56	-	2	58	107	799	811	172	323
NEW ENGLAND	31	89	12	24	-	2	-	1	3	4	55	42	3	9
Maine	1	-	-	1	-	-	-	-	-	-	3	6	2	3
N.H.	2	5	1	3	-	-	-	-	-	-	8	1	-	3
Vt.	1	1	-	1	-	-	-	-	-	-	5	1	-	-
Mass.	27	16	2	7	-	-	-	1	1	1	22	14	-	-
R.I.	-	14	2	4	-	2	-	-	2	3	-	-	-	1
Conn.	-	53	7	8	-	-	-	-	-	-	17	20	1	2
MID. ATLANTIC	470	619	45	35	-	1	-	-	1	21	74	67	20	31
Upstate N.Y.	213	501	8	10	-	-	-	-	-	2	28	29	7	4
N.Y. City	2	10	20	8	-	1	-	-	1	9	-	-	1	-
N.J.	47	80	12	13	-	-	-	-	-	17	21	18	-	5
Pa.	208	28	5	4	-	-	-	-	-	1	16	20	12	22
E.N. CENTRAL	14	6	16	31	-	-	-	-	-	15	108	127	26	84
Ohio	13	3	1	3	-	-	-	-	-	10	32	30	12	8
Ind.	1	-	1	9	-	-	-	-	-	1	17	23	-	2
Ill.	-	3	12	10	-	-	-	-	-	-	35	41	4	56
Mich.	-	-	2	8	-	-	-	-	-	1	20	13	10	16
Wis.	-	-	-	1	-	-	-	-	-	3	4	20	-	2
W.N. CENTRAL	12	16	6	14	-	-	-	-	-	1	42	64	10	13
Minn.	-	4	3	4	-	-	-	-	-	-	6	5	-	-
Iowa	-	1	-	3	-	-	-	-	-	-	8	5	3	3
Mo.	2	9	2	4	-	-	-	-	-	-	14	37	5	9
N. Dak.	-	-	-	-	-	-	-	-	-	-	-	-	-	1
S. Dak.	-	-	-	-	-	-	-	-	-	-	-	4	-	-
Nebr.	-	-	1	2	-	-	-	-	-	1	6	4	2	-
Kans.	10	2	-	1	-	-	-	-	-	-	8	9	-	-
S. ATLANTIC	80	81	50	61	-	-	-	-	-	4	160	128	27	52
Del.	1	11	1	2	-	-	-	-	-	-	1	-	-	-
Md.	60	11	17	26	-	-	-	-	-	-	6	8	-	11
D.C.	-	-	3	7	-	-	-	-	-	-	1	1	-	-
Va.	2	11	8	8	-	-	-	-	-	1	24	19	7	11
W. Va.	6	3	-	-	-	-	-	-	-	-	3	6	-	2
N.C.	7	17	4	1	-	-	-	-	-	-	23	23	14	16
S.C.	4	-	-	1	-	-	-	-	-	-	26	5	1	5
Ga.	-	27	7	8	-	-	-	-	-	-	42	18	-	3
Fla.	-	1	10	8	-	-	-	-	-	3	34	48	5	4
E.S. CENTRAL	3	7	2	5	-	-	-	-	-	24	39	52	3	-
Ky.	1	5	-	1	-	-	-	-	-	-	17	14	-	-
Tenn.	1	1	-	3	-	-	-	-	-	24	3	13	-	-
Ala.	-	1	2	1	-	-	-	-	-	-	13	25	2	-
Miss.	1	U	-	U	-	-	-	-	-	U	6	U	1	U
W.S. CENTRAL	10	4	3	6	-	2	-	-	2	6	90	96	9	67
Ark.	-	-	2	-	-	2	-	-	2	-	7	10	-	-
La.	-	-	-	-	-	-	-	-	-	-	13	16	2	4
Okla.	9	4	-	1	-	-	-	-	-	-	9	7	-	20
Tex.	1	-	1	5	-	-	-	-	-	6	61	63	7	43
MOUNTAIN	2	4	14	6	1	37	-	-	37	24	62	60	13	7
Mont.	-	-	1	-	-	-	-	-	-	-	2	2	-	-
Idaho	-	1	-	2	-	1	-	-	1	-	1	10	1	3
Wyo.	-	-	-	-	-	-	-	-	-	-	1	2	-	-
Colo.	1	-	8	2	-	-	-	-	-	-	13	5	1	-
N. Mex.	-	3	3	1	-	26	-	-	26	-	17	4	N	N
Ariz.	-	-	1	-	1	9	-	-	9	-	23	23	3	-
Utah	-	-	1	1	-	-	-	-	-	24	2	10	1	1
Nev.	1	-	-	-	-	1	-	-	1	-	3	4	6	3
PACIFIC	18	16	52	64	13	14	-	1	15	8	169	175	61	60
Wash.	-	-	5	5	13	13	-	-	13	-	22	33	3	6
Oreg.	1	-	4	3	-	1	-	-	1	-	33	32	N	N
Calif.	17	16	39	49	-	-	-	-	-	8	112	105	51	49
Alaska	-	-	1	-	-	-	-	-	-	-	-	1	6	2
Hawaii	-	-	3	7	-	-	-	1	1	-	2	4	1	3
Guam	-	-	-	-	U	-	U	-	-	15	1	-	-	2
P.R.	-	-	-	-	3	3	-	-	3	14	10	3	-	2
V.I.	-	-	-	-	U	-	U	-	-	-	-	-	1	-
Amer. Samoa	-	-	-	-	U	-	U	-	-	-	-	-	-	1
C.N.M.I.	-	-	-	1	U	-	U	-	-	24	-	-	-	-

*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 March 25, 1995, and March 26, 1994 (12th 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	36	669	879	-	15	89	4,028	4,317	2,805	3,811	1,429	1,451
NEW ENGLAND	4	75	79	-	2	60	57	46	65	77	423	388
Maine	2	10	2	-	-	-	4	1	-	-	-	-
N.H.	-	4	22	-	1	-	1	-	1	2	56	52
Vt.	-	2	9	-	-	-	-	-	-	-	56	36
Mass.	2	55	40	-	1	60	17	12	30	36	169	151
R.I.	-	-	2	-	-	-	1	5	9	8	59	5
Conn.	-	4	4	-	-	-	34	28	25	31	83	144
MID. ATLANTIC	-	40	172	-	1	4	233	318	552	553	371	343
Upstate N.Y.	-	26	63	-	1	4	18	33	30	105	179	226
N.Y. City	-	8	22	-	-	-	134	175	315	288	-	-
N.J.	-	-	7	-	-	-	45	48	115	105	64	71
Pa.	-	6	80	-	-	-	36	62	92	55	128	46
E.N. CENTRAL	1	65	210	-	-	7	995	573	368	393	2	4
Ohio	-	30	53	-	-	-	223	248	62	56	1	-
Ind.	1	4	16	-	-	-	394	64	10	32	-	-
Ill.	-	4	82	-	-	4	276	112	196	219	1	1
Mich.	-	27	19	-	-	3	67	73	90	76	-	1
Wis.	-	-	40	-	-	-	35	76	10	10	-	2
W.N. CENTRAL	2	21	23	-	-	-	191	311	102	80	56	32
Minn.	-	-	8	-	-	-	13	13	16	19	2	1
Iowa	-	1	1	-	-	-	15	13	15	7	18	14
Mo.	-	1	7	-	-	-	155	266	46	40	8	4
N. Dak.	-	5	-	-	-	-	-	-	-	1	6	-
S. Dak.	-	4	-	-	-	-	-	-	-	6	11	2
Nebr.	2	3	1	-	-	-	-	3	6	-	-	-
Kans.	-	7	6	-	-	-	8	16	19	7	11	11
S. ATLANTIC	-	61	109	-	1	5	876	1,337	443	765	416	411
Del.	-	3	-	-	-	-	6	6	-	5	10	6
Md.	-	-	36	-	-	-	24	59	104	70	97	142
D.C.	-	1	3	-	-	-	37	62	21	28	2	1
Va.	-	-	13	-	-	-	154	165	6	88	88	85
W. Va.	-	-	1	-	-	-	1	6	22	19	20	13
N.C.	-	46	31	-	-	-	269	445	38	75	90	42
S.C.	-	7	8	-	-	-	166	154	66	104	33	37
Ga.	-	1	6	-	-	-	110	216	58	147	64	80
Fla.	-	3	11	-	1	5	109	224	128	229	12	5
E.S. CENTRAL	1	15	33	-	-	-	975	452	154	255	39	53
Ky.	-	-	14	-	-	-	58	67	44	69	5	-
Tenn.	-	2	13	-	-	-	109	225	-	92	11	28
Ala.	1	13	6	-	-	-	154	160	83	94	23	25
Miss.	-	-	U	-	-	U	654	U	27	U	-	U
W.S. CENTRAL	1	14	25	-	1	4	588	917	248	327	26	132
Ark.	-	-	-	-	-	-	147	125	38	34	8	7
La.	1	1	2	-	-	-	273	478	-	-	9	14
Okla.	-	-	20	-	-	4	20	32	1	30	9	13
Tex.	-	13	3	-	1	-	148	282	209	263	-	98
MOUNTAIN	24	276	64	-	2	-	60	129	133	103	13	20
Mont.	1	3	2	-	-	-	3	-	3	-	6	3
Idaho	1	25	19	-	-	-	-	1	4	4	-	-
Wyo.	-	-	-	-	-	-	2	-	-	1	-	5
Colo.	-	1	31	-	-	-	36	45	-	9	-	-
N. Mex.	2	7	3	-	-	-	1	5	18	15	-	-
Ariz.	20	236	6	-	2	-	11	67	63	50	6	12
Utah	-	2	3	-	-	-	4	5	7	-	-	-
Nev.	-	2	-	-	-	-	3	6	38	24	1	-
PACIFIC	3	102	164	-	8	9	53	234	740	1,258	83	68
Wash.	1	14	26	-	-	-	-	8	51	44	-	-
Oreg.	-	2	16	-	1	-	-	2	3	30	-	-
Calif.	2	83	118	-	7	9	53	223	633	1,110	82	50
Alaska	-	-	-	-	-	-	-	-	13	21	1	18
Hawaii	-	3	4	-	-	-	-	1	40	53	-	-
Guam	U	-	-	U	-	-	1	1	4	7	-	-
P.R.	1	4	2	-	-	-	61	85	16	29	11	19
V.I.	U	-	-	U	-	-	-	5	-	-	-	-
Amer. Samoa	U	-	1	U	-	-	-	-	2	-	-	-
C.N.M.I.	U	-	-	U	-	-	-	1	1	14	-	-

U: Unavailable - : no reported cases

Diphtheria — Continued

(2,3). The two cases described in this report are the first known to have occurred among U.S. citizens from exposure during the current epidemic in the NIS and emphasize the risk for persons who travel to countries with epidemic diphtheria. In addition, these cases suggest the potential for importation of toxigenic strains of *C. diphtheriae* to the United States by persons who arrive from affected areas. Although importation of diphtheria from the NIS to the United States has not been reported, at least 20 imported cases related to this epidemic have been reported in European countries (4–6).

The diagnosis of diphtheria was confirmed by culture in the first case in this report. Although diphtheria was not laboratory-confirmed in the second patient, the clinical diagnosis was made by physicians experienced in diagnosing and treating diphtheria, and the CDC case definition for a probable case was met (7). Her negative throat culture does not exclude the diagnosis because she had begun antibiotic therapy before the culture specimen was taken. In addition, levels of antitoxin ≥ 0.1 IU, as those present in this patient, are considered to confer a relative degree of protection against disease (8); although no level of antitoxin provides absolute protection (8), this patient appeared to have relatively mild disease and did not develop toxic complications. Because clinical diphtheria may not induce protective immunity, the lack of an increase in postdisease antitoxin level would not exclude the diagnosis; booster vaccination with an age-appropriate diphtheria toxoid-containing vaccine is recommended during convalescence (8).

To minimize the risk for diphtheria, all U.S. residents should be up-to-date for diphtheria vaccination, regardless of whether they plan international travel. The Advisory Committee on Immunization Practices recommends that all children receive a routine series of five doses of DTP (or diphtheria and tetanus toxoids for pediatric use [DT] if pertussis vaccine is contraindicated) with doses at ages 2, 4, 6, and 12–15 months, and 4–6 years; Td boosters should be given at age 11–16 years, and every 10 years thereafter (9,10). For persons aged ≥ 7 years who have not been previously vaccinated against diphtheria, the primary series consists of three doses of Td, with intervals of 1–2 months between the first two doses and 6–12 months between the second and third doses; Td boosters should be given every 10 years thereafter. To improve diphtheria-specific levels of immunity within the population, active vaccination against tetanus given as part of wound management should involve use of a vaccine containing both diphtheria and tetanus toxoids rather than single antigen tetanus toxoid (i.e., DTP [or DT if pertussis vaccine is contraindicated] for children aged < 7 years and Td for persons aged ≥ 7 years). Travelers to areas with endemic diphtheria or outbreaks should consult their medical providers to ensure they are adequately vaccinated. Travelers should have completed a primary series of at least three doses of diphtheria toxoid and should have received the most recent dose of vaccine (either primary series or booster) within the previous 10 years. In addition, travelers to affected countries should be advised to contact a health-care provider promptly if they develop a sore throat during either travel or the 2-week period after return from travel.

References

1. CDC. Diphtheria epidemic—New Independent States of the former Soviet Union, 1990–1994. *MMWR* 1995;44:177–81.
2. Crossley K, Irvine P, Warren JB, Lee BK, Mead K. Tetanus and diphtheria immunity in urban Minnesota adults. *JAMA* 1979;242:2298–3000.

Diphtheria — Continued

3. Koblin BA, Townsend TR. Immunity to diphtheria and tetanus in inner-city women of child-bearing age. *Am J Public Health* 1989;79:1297–8.
4. Lumio J, Jahkola M, Vuento R, Haikala O, Eskola J. Diphtheria after a visit to Russia. *Lancet* 1993;342:53–4.
5. Expanded Program on Immunization, World Health Organization. Recrudescence of diphtheria—Poland. *Wkly Epidemiol Rec* 1993;68:261–4.
6. De Zoysa A, Efstratiou A, George RC, Vuopio-Varkila J, Jahkola M, Rikushin Y. Diphtheria and travel [Letter]. *Lancet* 1993;342:446.
7. CDC. Case definitions for public health surveillance. *MMWR* 1990;39(no. RR-13):11.
8. Dixon JMS. Diphtheria. In: Topley WWC, Parker MT, Collier L, Wilson G, eds. *Topley and Wilson's principles of bacteriology, virology, and immunity*. Philadelphia: BC Decker, 1990:56–75.
9. ACIP. Diphtheria, tetanus, and pertussis: recommendations for vaccine use and other preventive measures—recommendations of the Immunization Practices Advisory Committee (ACIP). *MMWR* 1991;40(no. RR-10).
10. CDC. Recommended childhood immunization schedule—United States, January 1995. *MMWR* 1995;43:959–60.

Vaccination Coverage Surveys in County Health Departments — Kansas, 1993–1994

The objective of the Childhood Immunization Initiative (CII) is to protect all children in the United States by their second birthday against nine vaccine-preventable diseases. Specific objectives for 1994 were to increase coverage levels to at least 85% for the third dose of diphtheria and tetanus toxoids and pertussis vaccine (DTP3) and the first dose of measles, mumps, and rubella vaccine (MMR1); 75% for the third doses of oral poliovirus vaccine (OPV3) and *Haemophilus influenzae* type b vaccine (Hib3); and 30% for the third dose of hepatitis B vaccine (HepB3) (1). To determine whether county health departments in Kansas had achieved the national vaccination objectives, in 1993 staff from the Kansas Department of Health and Environment (KDHE) began assessing vaccination coverage rates for children aged 2 years served by county health departments in that state. This report presents the results of the first vaccination coverage assessments of all 105 county health departments in Kansas during November 1993–November 1994.

The Clinic Assessment Software Application (CASA), which was developed by CDC to assist in the measurement of vaccination coverage rates (2,3), was used to assess coverage rates of DTP3, MMR1, OPV3, and Hib3 at the second birthday (4). Coverage rates for HepB3 were not assessed because universal hepatitis B vaccination of infants had not been implemented statewide. KDHE staff conducted 104 assessments; CDC conducted one. Most (100 [95%]) assessments were conducted onsite at county health departments; four (4%) were conducted offsite using copies of county health department vaccination records. The assessments reviewed records for all children aged 2 years and excluded those who were documented to have moved or gone elsewhere for health care. Because county health departments are administratively autonomous in Kansas, methods for maintaining vaccination records are not standardized. In health departments maintaining records for all children receiving services at the department for any reason, the assessment targeted all children with a medical record, including those who had never been vaccinated; in health departments maintaining only vaccination records, the assessment was restricted to children who had received at least one vaccination from the health department. Initially, systematic random sam-

Vaccination Coverage Surveys — Continued

pling was done in health departments with ≥ 50 records; during the assessment, this was changed to include only health departments maintaining >200 records (approximately 20% of all health departments). Systematic random sampling ensured the computation of a 95% confidence interval within seven percentage points of the estimated coverage rate (2). All eligible records were assessed in the remaining health departments (3). Overall, the median number of records reviewed in a health department assessment was 86 (range: seven to 284).

Median coverage rates at the second birthday for individual vaccines ranged from 89% for DTP3 to 75% for OPV3 (Table 1). The 1994 goal for all four vaccines assessed was met by 35 (33%) of the health departments; 82 (78%) met or surpassed the goal for Hib3, and 41 (39%) met or surpassed the goal for MMR1. None of the goals were met by 17 (16%) health departments. The median size of the birth cohort of 2-year-olds in counties with health departments achieving the four 1994 goals assessed was 51 (range: 24–364), compared with a median of 411 (range: 36–7580) in health departments not achieving any of these objectives. Health departments in which the survey population included all children with a medical record were less likely to meet the objectives than those that included only children who had received at least one vaccination: a survey population consisting of all children with a medical record was assessed in 13 (77%) of the 17 health departments not meeting any of the objectives, while only one (3%) of the 35 health departments that met the four 1994 goals assessed a comparable population.

KDHE provided findings of each assessment to county health department personnel and reviewed possible improvements in recordkeeping and vaccination practices. In addition, health departments were provided lists of children (based on the study sample) whose vaccinations were not up-to-date.

Reported by: S Bowden, M Burt, J Calder, DVM, J Hansen, M Mayer, L Perry, MS, G Pezzino, MD, C Schiffelbein, D Silvius, MA, L Wilberschied, MS, Bur of Disease Control, AR Pelletier, MD, Acting State Epidemiologist, Kansas Dept of Health and Environment. Div of Field Epidemiology,

TABLE 1. Percentage of children aged 2 years who had received selected vaccines by their second birthday in county health departments, national health objective goals, and percentage of county health departments reaching the 1994 goal — Kansas, November 1993–November 1994*

No. doses/Vaccine	Median	Range	National goal for 1994	Health departments reaching 1994 goal
≥ 3 doses of diphtheria and tetanus toxoids and pertussis vaccine	89%	41%–100%	85%	69%
One dose of measles-mumps-rubella vaccine	82%	37%–100%	85%	39%
≥ 3 doses of oral poliovirus vaccine	75%	31%–100%	75%	55%
≥ 3 doses of <i>Haemophilus influenzae</i> type b vaccine	83%	37%–100%	75%	78%

*Percentage of children receiving care at county health departments who were vaccinated based on vaccination records.

Vaccination Coverage Surveys — Continued

Epidemiology Program Office; Program Operations Br, Div of Immunization Svcs, National Immunization Program, CDC.

Editorial Note: The approach of KDHE illustrates the potential advantages of assessing provider-specific vaccination coverage levels, including objective characteristics of the vaccine provider's recordkeeping and vaccination practices. The use of a computer-based package such as CASA enables completion of the assessment onsite and immediate dissemination to health department staff. Assessments also enable determination of whether vaccination coverage can be improved through simultaneous administration of multiple vaccines and through elimination of missed opportunities by reviewing a child's vaccination status at every visit to the health department and providing vaccinations when appropriate (5).

The coverage estimates in Kansas are subject to at least four limitations. First, these estimates reflect vaccination coverage only for children attending county health departments and cannot be used as countywide, population-based vaccination rates. Second, criteria for determining when to assess a sample of eligible records was changed during the statewide assessment. Third, because of differences in recordkeeping systems, the populations on which the assessments were based varied; therefore, coverage rates for county health departments in Kansas cannot be compared directly. Finally, estimated reported coverage rates may vary from actual coverage rates. Overestimation can occur in health departments where the assessment of vaccination status includes only children who had received at least one vaccination from the health department. These health departments were more likely to have met the four vaccination goals than those where the assessment of vaccination status includes children seen for any reason. In contrast, underestimation can occur when the records either do not document when children move or do not document vaccinations that were obtained from other providers. In Kansas, underestimation may be more common in larger counties because of the numbers of children to be tracked and the numbers of providers of vaccine.

KDHE has developed plans to improve and expand the assessment process to meet future vaccination coverage goals. The national vaccination coverage objectives set by the CII for 1996 are 90% for DTP3, MMR1, OPV3, and HIB3, and 70% for HepB3 (1) at the second birthday. Therefore, beginning in 1995, the scope of the assessments in Kansas was expanded to examine coverage rates for hepatitis B vaccine, reflecting the statewide implementation of universal hepatitis B vaccination of infants. Uniform criteria were developed for determining which children had moved and should no longer be included in the survey population. In addition, KDHE is considering options for standardizing vaccination recordkeeping to ensure comparability and consistency of assessments.

States receiving Immunization Action Plan funds during 1995 are required to assess all public health clinics annually.* To assist with these assessments, CASA software is available at no charge to public and private providers from the National Immunization Program, CDC, telephone (404) 639-8392.

References

1. CDC. Reported vaccine-preventable diseases—United States, 1993, and the Childhood Immunization Initiative. *MMWR* 1994;43:57–60.

*Public Law 103-333.

Vaccination Coverage Surveys — Continued

2. CDC. Guidelines for assessing vaccination levels of the 2-year-old population in a clinic setting. Atlanta: US Department of Health and Human Services, Public Health Service, CDC, 1992.
3. CDC. Clinic assessment software application (CASA): user's guide. Atlanta: US Department of Health and Human Services, Public Health Service, CDC, 1994.
4. ACIP. General recommendations on immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1994;43(no. RR-1).
5. CDC. Standards for pediatric immunization practices: recommended by the National Vaccine Advisory Committee—approved by the U.S. Public Health Service. MMWR 1993;42(no. RR-5).

*Notice to Readers***National Public Health Week**

April 3–9, 1995, has been designated National Public Health Week. Federal, state, and local public health agencies throughout the country will collaborate with private organizations and educational institutions on activities to promote healthy lifestyles and to heighten awareness of the essential services and benefits of public health.

The Public Health Service, the American Public Health Association, the Association of State and Territorial Health Officials, the National Association of County and City Health Officials, and other national public health organizations have suggested activities to their constituents to increase understanding of the role of public health in protecting and improving the health status of individuals and communities. The theme for the week, "Public Health Is You, Too," focuses on the role persons can play in protecting their own health and that of their families and communities.

Additional information about National Public Health Week is available from the Office of Disease Prevention and Health Promotion, Room 2132, 330 C Street, SW, Washington, DC 20201; telephone (202) 205-5968; and the American Public Health Association, 1015 15th Street, NW, Washington, DC 20005; telephone (202) 789-5600.

*Notice to Readers***Availability of Recommendations
for Preventing Vancomycin Resistance**

In February 1995, the Hospital Infection Control Practices Advisory Committee published *Recommendations for Preventing the Spread of Vancomycin Resistance* (1). Copies of the recommendations are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161; telephone (703) 487-4650.

Reference

1. Hospital Infection Control Practices Advisory Committee. Recommendations for preventing the spread of vancomycin resistance. *Infect Control Hosp Epidemiol* 1995;16:105–13.

The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy on Friday of each week, send an e-mail message to lists@list.cdc.gov. The body content should read *subscribe mmwr-toc*. Electronic copy also is available from CDC's World-Wide Web server at <http://www.cdc.gov/> or from CDC's file transfer protocol server at <ftp.cdc.gov>. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 783-3238.

Data in the weekly *MMWR* 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 following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to: Editor, *MMWR* Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone (404) 332-4555.

All material in the *MMWR* Series is in the public domain and may be used and reprinted without permission; citation as to source, however, is appreciated.

Director, Centers for Disease Control and Prevention
David Satcher, M.D., Ph.D.
Deputy Director, Centers for Disease Control
and Prevention
Claire V. Broome, M.D.
Director, Epidemiology Program Office
Stephen B. Thacker, M.D., M.Sc.

Editor, *MMWR* Series
Richard A. Goodman, M.D., M.P.H.
Managing Editor, *MMWR* (weekly)
Karen L. Foster, M.A.
Writers-Editors, *MMWR* (weekly)
David C. Johnson
Patricia A. McGee
Darlene D. Rumph-Person
Caran R. Wilbanks

☆ U.S. Government Printing Office: 1995-633-175/05062 Region IV