CENTERS FOR DISEASE CONTROL

September 26, 1986 / Vol. 35 / No. 38

MMWR

MORBIDITY AND MORTALITY WEEKLY REPORT

Current Trends

The Effectiveness of School Health Education

The School Health Education Evaluation (SHEE), conducted in collaboration with CDC, from 1982 through 1984, suggests that exposure to health education curricula in schools can result in substantial changes in students' knowledge, attitude, and self-reported practices.

More than 30,000 fourth- through seventh-grade students representing 1,071 classrooms in 20 states were included in an experimental study comparing the effectiveness of four curricula. Details of the statistical analyses are described elsewhere (*2*). Overall, children exposed to health education showed increased knowledge, healthier attitudes, and better health skills and practices than those who did not receive health education. Comparisons of the curricula showed each to be most effective in the areas emphasized by developers and believed by teachers to be most important.

One of the four curricula evaluated, the School Health Curriculum Project (SHCP, now called "Growing Healthy"), may delay the onset of smoking among youth. In the fourth through the sixth grades, where the prevalence of smoking is low, the rate of self-reported smoking did not differ between classes that received the curriculum and classes that did not. However, among seventh graders, the data showed a 55% increase in smoking (from 8% to 13%) among students who did not participate in SHCP, compared with a 24% increase (from 6% to 8%) among students who did (*1*).

The amount of exposure time to the curricula needed to produce change can be seen in Figure 1. "Effect size" reflects the educational importance (vs. mere statistical significance) of levels reached (*3,4*). Large effects on specific program knowledge were achieved in relatively few classroom hours, while more than 50 hours were required to achieve large effects in general knowledge. Medium effects for self-reported practices were first achieved within 30 hours of instruction, but 50 hours were needed to reach a stable level. Only small effects on attitudes were demonstrated, even after 50 hours of instruction.

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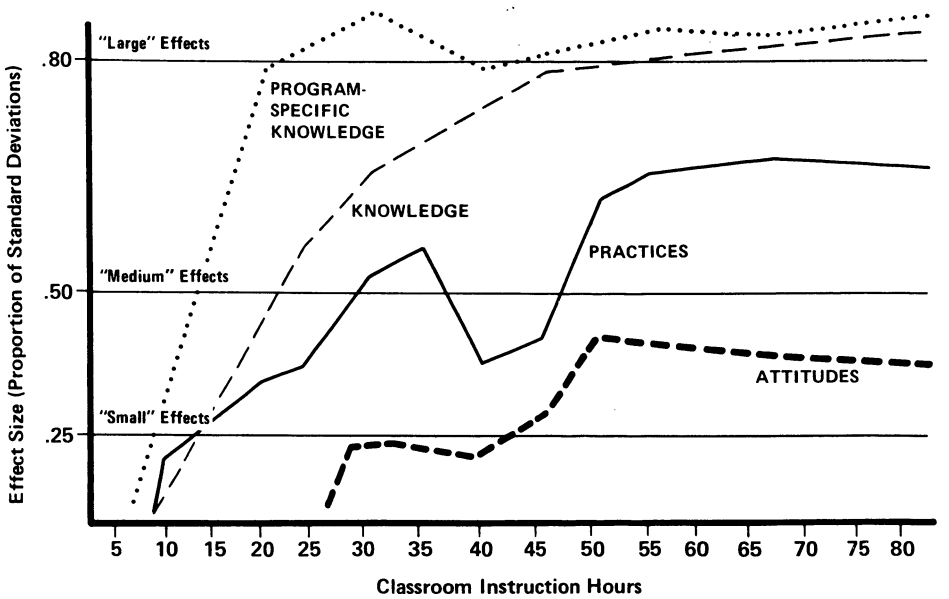
Editorial Note: The SHEE has provided evidence that school health education curricula can effect changes in health-related knowledge, practices, and attitudes, and that such changes increase with amount of instruction. The potential impact of these changes is large. For example, the data from the SHEE suggest that in 1984, if all students in U.S. schools had been exposed to the SHCP, 146,000 students would not have begun to smoke in the seventh grade (Figure 2).

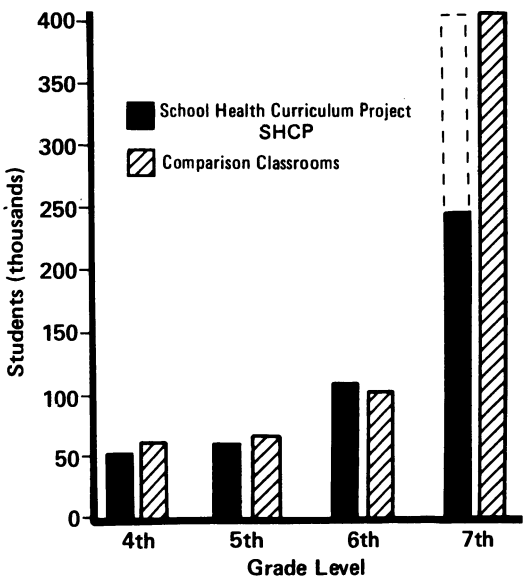
School Health Education – Continued

FIGURE 1. Relationship of effect size and instruction hours for health knowledge, attitudes, and practices*



*Effect sizes were computed as the difference between program and comparison test scores divided by the pooled standard deviation for those classrooms.

FIGURE 2. Estimates of number of children who smoked in 1984 and projected decrease in number of children who would have smoked if not exposed to SHCP



School Health Education — Continued

Since nearly one-third (67) of the 1990 *Objectives for the Nation* may be influenced directly in the school setting, use of health education curricula in schools may substantially contribute to the nation's health. The SHEE "demonstrates that school health education is an effective means of helping children improve their health knowledge and develop healthy attitudes" and "can decrease the likelihood that children will adopt behavior that is hazardous to health, such as cigarette smoking" (*5*). Detailed information regarding the specific and general effects of the various curricula evaluated—as well as the factors affecting their adoption, use, and effectiveness—has been published (*2*).

References

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Recommendation of the Immunization Practices Advisory Committee (ACIP)

Immunization of Children Infected with Human T-Lymphotropic Virus Type III/ Lymphadenopathy-Associated Virus

INTRODUCTION

This document is intended to summarize available information and to assist health-care providers in developing policies for the immunization of children infected with human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV),* the virus that causes acquired immunodeficiency syndrome (AIDS). These policies may vary depending upon the prevalence of HTLV-III/LAV infection and the incidence of vaccine-preventable diseases in the community, individual assessment of a child's health status, and the risks and benefits of immunization in a particular situation. This discussion considers the risks and benefits of immunization for children residing in the United States based on the risks of vaccine-preventable diseases and the prevalence of HTLV-III/LAV infection and is intended for use by health-care providers in the United States. The recommendations may not pertain to other countries with different risks of vaccine-preventable diseases and prevalence of

*The AIDS virus has been variously termed human T-lymphotropic virus type III (HTLV-III/LAV), lymphadenopathy-associated virus (LAV), AIDS-associated retrovirus (ARV), or human immunodeficiency virus (HIV). The designation "human immunodeficiency virus" (HIV) has been accepted by a subcommittee of the International Committee for the Taxonomy of Viruses as the appropriate name for the retrovirus that has been implicated as the causative agent of AIDS (Science 1986;232:697).

ACIP: Immunization of Children — Continued

HTLV-III/LAV infection among children. Since these recommendations are based upon information and knowledge available at this time, periodic reassessment and revision will be required as more data concerning risk and benefits associated with immunization of HTLV-III/LAV-infected children become known and as the prevalences of specific vaccine-preventable diseases and HTLV-III infection change.

HTLV-III/LAV INFECTION AMONG CHILDREN

In the period June 1, 1981-September 2, 1986, physicians and health departments in the United States reported 24,430 cases of AIDS to CDC (*1*). Three hundred forty-five (1%) of the case-patients were children under 13 years of age who met the AIDS case definition; 75% of these pediatric cases were reported from New York, Florida, New Jersey, and California. Children with less severe manifestations of HTLV-III/LAV infection (AIDS-related complex, or ARC) or with asymptomatic infections are not now reported to CDC, and no seroprevalence studies have been conducted among children. Thus, the number of less severely affected children and the number of infected but presently asymptomatic children are uncertain. In one recently published case series, 14 (48%) of 29 symptomatic HTLV-III/LAV-infected children met the CDC criteria for AIDS (*2*).

Fifty percent of children reported to CDC were diagnosed as having AIDS during the first year of life; 82%, by 3 years of age (*1*). Sixty-five percent of pediatric AIDS cases reported to CDC were fatal (*3*). Short-term fatality rates are lower for children with less severe disease (ARC) who have not developed opportunistic infections; however, the ultimate prognosis of these children and of asymptomatic infected children is unknown.

MECHANISMS OF TRANSMISSION OF HTLV-III/LAV AMONG CHILDREN

Two risk factors are predominately associated with HTLV-III/LAV infection in children: a) being born to a mother who has HTLV-III/LAV infection, and b) receiving blood or clotting factors containing HTLV-III/LAV. Most case-patients (79%) are children whose mothers probably are infected with the virus. The major risk factors for infection of these women are intravenous (IV) drug abuse and sexual contact with men at risk of HTLV-III/LAV infection (primarily through drug abuse or bisexual contacts); women of Haitian or central African origin are also at a higher risk of acquiring HTLV-III/LAV infection, and a small percentage of infected women have a history of being transfused with blood (*4*). Approximately 15% of pediatric AIDS case-patients have received transfusions of blood or blood products, and 4% have hemophilia and have been treated with clotting-factor concentrates. Information about risk factors is incomplete for 3% of children with AIDS.

Currently available data indicate that most pediatric HTLV-III/LAV infections are acquired from infected women during pregnancy, during labor and delivery, or perhaps shortly after birth. The risk of perinatal transmission from an infected mother to her infant is not known, although prospective studies indicate the rate of transmission has ranged from 0% (0/3) to 65% (13/20) (*5-7*). Seropositive women who had previously delivered an infected child had the highest of these transmission rates (65%) in subsequent pregnancies (*5*). In a retrospective study evaluating nine children whose mothers were later diagnosed as having AIDS, two (22%) children had antibody to HTLV-III/LAV (*8*). Additional prospective studies are needed to define more precisely the rate of perinatal transmission of HTLV-III/LAV.

PREVALENCE OF HTLV-III/LAV INFECTION AMONG WOMEN OF CHILD-BEARING AGE

The prevalence of HTLV-III/LAV infection among women of child-bearing age varies depending on the patient group and geographic area (*4*). Reported confirmed seroprevalences are less than 0.01% among female blood donors in Atlanta and 0.06% among female U.S. military recruit applicants (*4,9*). In contrast, the reported prevalence of HTLV-III/LAV antibody among IV drug abusers has ranged from 2% to 59%, with the highest prevalence in New

ACIP: Immunization of Children — Continued

York City and northern New Jersey. Female sex partners of IV drug-abusing men with AIDS or with ARC had a reported seroprevalence of 40%-71%, whereas 10% of female partners of asymptomatic infected hemophiliacs were reported to be seropositive (*4*). Seroprevalence among prostitutes has varied greatly (5%-40%) depending on the geographic area and has been largely attributed to a coincidental history of IV drug abuse (*4*). Seroprevalence has been reported to be as high as 5% among persons born in countries in which heterosexual transmission of HTLV-III/LAV is thought to play a major role (e.g., Haiti, central African countries) (*1,10,11*).

IMMUNOLOGIC ABNORMALITIES ASSOCIATED WITH HTLV-III/LAV INFECTION

Children with symptomatic HTLV-III/LAV infection (AIDS or ARC) have immunologic abnormalities similar to those of adult AIDS patients, including hypergammaglobulinemia, decreased T4 lymphocytes, reversed helper/suppressor T-cell ratios, poor T-lymphocyte responses to mitogen stimulation, and altered humoral immunity. Lymphopenia (cell counts less than 1,500 cells/mm^3) is uncommon. Antibody responses of children with AIDS or ARC to diphtheria and tetanus toxoid boosters and to pneumococcal vaccine were absent or lower than those of age-matched controls, which is consistent with defective humoral immunity (*12,13*). Some HTLV-III/LAV-infected children responded adequately to immunization; 60% of AIDS and ARC patients given measles-mumps-rubella vaccine (MMR) prior to diagnosis had protective levels of measles antibodies 5-66 months after immunization (*14*).

Asymptomatic HTLV-III/LAV-infected adults as a group generally have less severe abnormalities of immunologic function than adults with AIDS or ARC, and some may have normal immunologic function, although individual asymptomatic adults may have severe abnormalities (*15*). Immunologic function of asymptomatic HTLV-III/LAV-infected children has not yet been adequately studied but presumably would be more intact than that of symptomatic HTLV-III/LAV-infected children. In a small prospective study, all 29 children with symptomatic HTLV-III/LAV infection had immunologic abnormalities within 5-13 months of being found infected, compared with only two of seven (29%) children reported to have asymptomatic HTLV-III/LAV infection (*2*).

CONCERNS ABOUT IMMUNIZATION OF HTLV-III/LAV-INFECTED CHILDREN

The immunologic abnormalities associated with symptomatic HTLV-III/LAV infection have raised concerns about the immunization of infected children. Replication of live, attenuated vaccine viruses may be enhanced in persons with immunodeficiency diseases and theoretically may produce serious adverse events following immunization of symptomatic HTLV-III/LAV-infected (AIDS and ARC) patients (*16*). Concerns have been expressed on theoretical grounds that antigenic stimulation by immunization with inactivated vaccines might lead to a deterioration of clinical status of HTLV-III/LAV-infected children, but this effect has not been documented (*17*). Since symptomatic HTLV-III/LAV-infected patients have abnormal primary and secondary antibody responses, the efficacy of immunization may be decreased (*18*). The efficacy of immunization for asymptomatic HTLV-III/LAV-infected children is unknown, but presumably would be higher than for symptomatic HTLV-III/LAV-infected children.

Because most HTLV-III/LAV-infected children become infected perinatally, it is to be expected that their mothers are infected with HTLV-III/LAV. Other family members may also be infected with HTLV-III/LAV and may have abnormal immunologic function.† Prospective evaluation of 16 asymptomatic HTLV-III/LAV-infected mothers of children diagnosed as having

†Such family members may have been infected by sexual contact with an HTLV-III/LAV-infected person, by parenteral exposure to infected blood (e.g., by sharing needles), or as hemophiliacs who received clotting factors, or by perinatal transmission.

ACIP: Immunization of Children – Continued

AIDS or ARC showed that 12 (75%) mothers developed AIDS or ARC during a 30-month follow-up period (*6*). Regardless of the immune status of the recipient, poliovaccine virus is often excreted by children vaccinated with oral poliovaccine (OPV) and may be transmitted to close contacts (*19*). Immune-deficient individuals (either recipients or contacts) have a higher risk of developing vaccine-associated poliomyelitis than normal individuals. There is no risk of transmitting the viruses contained in measles, mumps, rubella (MMR) vaccine to family members (*20-22*).

While the risks of vaccination are not known with certainty, potential risks may exist if HTLV-III/LAV-infected children are not vaccinated. If local outbreaks of measles occur in geographic areas in which there is both a cluster of unvaccinated children and a high prevalence of HTLV-III/LAV infection, the risk of measles for unvaccinated, HTLV-III/LAV-infected children may be high. Measles infection among patients with immune deficiency may be severe, protracted, and fatal (*23*).

(Continued on page 603)

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

Disease	38th Week Ending			Cumulative, 38th Week Ending		
	Sept. 20, 1986	Sept. 21, 1985	Median 1981-1985	Sept. 20, 1986	Sept. 21, 1985	Median 1981-1985
Acquired Immunodeficiency Syndrome (AIDS)	650	151	N	9,431	5,584	N
Aseptic meningitis	372	484	484	6,674	6,504	6,504
Encephalitis: Primary (arthropod-borne & unspec.)	52	45	55	806	860	1,022
Post-infectious	2	2	2	81	100	75
Gonorrhea: Civilian	19,937	21,160	21,160	633,018	643,453	654,716
Military	287	444	510	11,971	15,566	17,827
Hepatitis: Type A	558	482	483	15,917	15,959	15,959
Type B	519	502	502	18,665	18,596	17,352
Non A, Non B	64	86	N	2,554	3,006	N
Unspecified	71	112	183	3,311	4,127	5,237
Legionellosis	15	23	N	493	529	N
Leprosy	2	12	7	185	281	186
Malaria	45	31	31	780	761	761
Measles: Total*	9	15	15	5,429	2,471	2,323
Indigenous	7	13	N	5,171	2,050	N
Imported	2	2	N	258	421	N
Meningococcal infections: Total	29	20	30	1,864	1,779	2,077
Civilian	29	20	30	1,862	1,773	2,073
Military	-	-	-	2	6	11
Mumps	46	44	40	3,542	2,273	2,483
Pertussis	120	164	71	2,304	2,280	1,739
Rubella (German measles)	8	7	20	415	555	786
Syphilis (Primary & Secondary): Civilian	524	541	706	18,880	19,373	22,236
Military	2	4	9	124	126	276
Toxic Shock syndrome	6	2	N	255	283	N
Tuberculosis	419	395	524	15,780	15,431	17,007
Tularemia	3	5	7	106	132	198
Typhoid fever	8	9	9	211	262	293
Typhus fever, tick-borne (RMSF)	19	37	31	606	567	847
Rabies, animal	89	127	127	4,008	3,947	4,639

TABLE II. Notifiable diseases of low frequency, United States

	Cum 1986		Cum 1986
Anthrax	-	Leptospirosis	25
Botulism: Foodborne (Calif. 1)	7	Plague	7
Infant (Calif. 2)	39	Poliomyelitis, Paralytic	1
Other	1	Psittacosis	75
Brucellosis (Tex. 1)	57	Rabies, human	-
Cholera	2	Tetanus (W. Va. 1, Fla. 1)	51
Congenital rubella syndrome (N.Y. City 4)	8	Trichinosis (N.H. 2)	30
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	35
Diphtheria	-		

*One of the 9 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending September 20, 1986 and September 21, 1985 (38th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	9,431	372	806	81	633,018	643,453	558	519	64	71	15	185
NEW ENGLAND	385	21	20	3	16,374	16,638	17	41	-	7	1	6
Maine	14	1	-	-	661	831	-	3	-	-	-	-
N H	10	-	2	-	406	419	-	1	-	-	-	-
Vt	4	1	3	2	192	242	-	1	-	-	-	-
Mass	212	6	5	-	6,413	6,492	7	22	-	7	1	6
R I	22	12	-	-	1,261	1,353	-	3	-	-	-	-
Conn	123	1	10	1	7,441	7,301	10	11	-	-	-	-
MID ATLANTIC	3,526	45	84	7	105,640	93,278	32	54	8	7	-	12
Upstate N Y	342	16	31	4	13,013	12,462	13	14	3	-	-	1
N Y City	2,416	8	17	-	59,411	46,733	-	2	-	7	-	10
N J	534	9	10	-	14,196	13,989	10	21	4	-	-	-
Pa	234	12	26	3	19,020	20,094	9	17	1	-	-	1
E N CENTRAL	592	80	240	11	82,125	85,645	15	32	1	4	-	4
Ohio	132	30	77	3	21,210	22,569	3	18	-	-	-	-
Ind	54	17	59	3	9,143	8,985	1	4	-	1	-	-
Ill	274	3	42	4	22,156	21,593	3	-	-	1	-	3
Mich	104	30	41	1	26,572	24,186	8	10	1	2	-	1
Wis	28	-	21	-	3,044	8,312	-	-	-	-	-	-
W N CENTRAL	174	21	51	9	27,206	29,776	6	16	2	1	2	2
Minn	60	9	21	-	3,939	4,397	1	1	-	-	-	1
Iowa	13	2	16	-	2,733	3,217	2	2	2	-	1	-
Mo	64	3	1	-	13,583	14,452	1	8	-	-	1	-
N Dak	2	-	1	-	238	202	-	-	-	-	-	-
S Dak	1	2	10	-	575	564	-	-	-	-	-	-
Nebr	8	1	-	1	2,133	2,498	-	3	-	-	-	-
Kans	26	4	2	8	4,005	4,446	2	2	-	1	-	1
S ATLANTIC	1,244	69	103	29	165,965	168,131	75	121	10	6	7	2
Del	18	2	6	-	2,697	3,151	1	1	-	-	-	-
Md	123	6	25	1	19,480	21,464	8	16	2	1	1	-
D C	162	3	-	1	12,312	11,214	-	1	-	-	-	-
Va	118	1	30	1	13,631	13,921	3	4	2	-	3	1
W Va	7	6	27	-	1,669	1,907	1	3	1	-	1	-
N C	47	7	13	1	25,704	26,483	1	17	1	1	-	-
S C	32	3	-	-	14,391	16,118	-	12	-	-	-	-
Ga	197	11	-	1	27,782	33,599	5	26	1	1	2	-
Fla	540	30	2	24	48,299	40,274	56	41	3	3	-	1
E S CENTRAL	111	37	49	4	51,404	54,837	5	29	2	1	1	1
Ky	25	29	24	1	5,666	6,219	1	4	-	-	-	-
Tenn	53	1	4	1	19,835	20,746	1	11	2	-	-	-
Ala	19	3	20	2	14,688	16,759	1	10	-	1	-	1
Miss	14	4	1	-	11,215	11,113	2	4	-	-	1	-
W S CENTRAL	732	44	112	6	75,670	81,438	76	44	6	13	-	18
Ark	22	5	-	2	7,120	7,957	1	3	1	1	-	-
La	117	1	6	-	13,516	15,745	1	10	-	-	-	1
Okla	27	1	18	-	8,693	8,870	10	5	-	2	-	-
Tex	566	37	88	4	46,341	48,866	64	26	5	10	-	17
MOUNTAIN	221	15	28	1	18,827	19,858	103	67	14	10	3	11
Mont	4	-	1	1	505	552	1	-	-	-	-	-
Idaho	2	-	-	-	584	653	2	1	-	-	-	-
Wyo	4	-	3	-	408	474	-	1	-	-	-	-
Colo	98	3	4	-	4,938	5,927	5	5	-	3	-	3
N Mex	15	1	3	-	1,857	2,285	12	13	-	-	1	-
Ariz	58	11	9	-	6,115	5,722	74	37	12	5	-	5
Utah	13	-	6	-	810	914	7	4	1	2	2	1
Nev	27	-	2	-	3,610	3,331	2	6	1	-	-	2
PACIFIC	2,446	40	119	11	89,807	93,852	229	115	21	22	1	129
Wash	119	-	11	-	6,662	7,205	30	19	-	5	-	15
Oreg	47	-	-	-	3,756	4,714	30	10	4	-	-	-
Calif	2,232	36	105	11	76,411	78,418	167	85	17	17	1	89
Alaska	11	-	3	-	2,009	2,192	2	1	-	-	-	-
Hawaii	37	4	-	-	969	1,323	-	-	-	-	-	25
Guam	-	-	-	-	146	156	-	-	-	-	-	1
P R	77	-	5	-	1,755	2,398	7	35	1	2	-	7
V I	3	-	-	-	182	340	-	2	-	-	-	-
Pac Trust Terr	-	-	-	-	338	655	5	-	-	-	-	39
Amer Samoa	-	-	-	-	31	-	1	-	-	-	-	2

N: Not notifiable U: Unavailable

ACIP: Immunization of Children – Continued

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Brucellosis (Tex. 1)	57	Rabies, human	-
Cholera	2	Tetanus (W. Va. 1, Fla. 1)	51
Congenital rubella syndrome (N.Y. City 4)	8	Trichinosis (N.H. 2)	30
Congenital syphilis, ages < 1 year	107	Typhus fever, flea-borne (endemic, murine)	35
Diphtheria	-		

*One of the 9 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending September 20, 1986 and September 21, 1985 (38th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum 1986	1986	Cum 1986	Cum 1986	Cum 1986	Cum 1985	1986	1986	1986	1986	1986	Cum 1986
UNITED STATES	9,431	372	806	81	633,018	643,453	558	519	64	71	15	185
NEW ENGLAND	385	21	20	3	16,374	16,638	17	41	-	7	1	6
Maine	14	1	-	-	661	831	-	3	-	-	-	-
N H	10	-	2	-	406	419	-	1	-	-	-	-
Vt	4	1	3	2	192	242	-	1	-	-	-	-
Mass	212	6	5	-	6,413	6,492	7	22	-	7	1	6
R I	22	12	-	-	1,261	1,353	-	3	-	-	-	-
Conn	123	1	10	1	7,441	7,301	10	11	-	-	-	-
MID ATLANTIC	3,526	45	84	7	105,640	93,278	32	54	8	7	-	12
Upstate N Y	342	16	31	4	13,013	12,462	13	14	3	-	-	1
N Y City	2,416	8	17	-	59,411	46,733	-	2	-	7	-	10
N J	534	9	10	-	14,196	13,989	10	21	4	-	-	-
Pa	234	12	26	3	19,020	20,094	9	17	1	-	-	1
E N CENTRAL	592	80	240	11	82,125	85,645	15	32	1	4	-	4
Ohio	132	30	77	3	21,210	22,569	3	18	-	-	-	-
Ind	54	17	59	3	9,143	8,985	1	4	-	1	-	-
Ill	274	3	42	4	22,156	21,593	3	-	-	1	-	3
Mich	104	30	41	1	26,572	24,186	8	10	1	2	-	1
Wis	28	-	21	-	3,044	8,312	-	-	-	-	-	-
W N CENTRAL	174	21	51	9	27,206	29,776	6	16	2	1	2	2
Minn	60	9	21	-	3,939	4,397	1	1	-	-	-	1
Iowa	13	2	16	-	2,733	3,217	2	2	2	-	1	-
Mo	64	3	1	-	13,583	14,452	1	8	-	-	1	-
N Dak	2	-	1	-	238	202	-	-	-	-	-	-
S Dak	1	2	10	-	575	564	-	-	-	-	-	-
Nebr	8	1	-	1	2,133	2,498	-	3	-	-	-	-
Kans	26	4	2	8	4,005	4,446	2	2	-	1	-	1
S ATLANTIC	1,244	69	103	29	165,965	168,131	75	121	10	6	7	2
Del	18	2	6	-	2,697	3,151	1	1	-	-	-	-
Md	123	6	25	1	19,480	21,464	8	16	2	1	1	-
D C	162	3	-	1	12,312	11,214	-	1	-	-	-	-
Va	118	1	30	1	13,631	13,921	3	4	2	-	3	1
W Va	7	6	27	-	1,669	1,907	1	3	1	-	1	-
N C	47	7	13	1	25,704	26,483	1	17	1	1	-	-
S C	32	3	-	-	14,391	16,118	-	12	-	-	-	-
Ga	197	11	-	1	27,782	33,599	5	26	1	1	2	-
Fla	540	30	2	24	48,299	40,274	56	41	3	3	-	1
E S CENTRAL	111	37	49	4	51,404	54,837	5	29	2	1	1	1
Ky	25	29	24	1	5,666	6,219	1	4	-	-	-	-
Tenn	53	1	4	1	19,835	20,746	1	11	2	-	-	-
Ala	19	3	20	2	14,688	16,759	1	10	-	1	-	1
Miss	14	4	1	-	11,215	11,113	2	4	-	-	1	-
W S CENTRAL	732	44	112	6	75,670	81,438	76	44	6	13	-	18
Ark	22	5	-	2	7,120	7,957	1	3	1	1	-	-
La	117	1	6	-	13,516	15,745	1	10	-	-	-	1
Okla	27	1	18	-	8,693	8,870	10	5	-	2	-	-
Tex	566	37	88	4	46,341	48,866	64	26	5	10	-	17
MOUNTAIN	221	15	28	1	18,827	19,858	103	67	14	10	3	11
Mont	4	-	1	1	505	552	1	-	-	-	-	-
Idaho	2	-	-	-	584	653	2	1	-	-	-	-
Wyo	4	-	3	-	408	474	-	1	-	-	-	-
Colo	98	3	4	-	4,938	5,927	5	5	-	3	-	3
N Mex	15	1	3	-	1,857	2,285	12	13	-	-	1	-
Ariz	58	11	9	-	6,115	5,722	74	37	12	5	-	5
Utah	13	-	6	-	810	914	7	4	1	2	2	1
Nev	27	-	2	-	3,610	3,331	2	6	1	-	-	2
PACIFIC	2,446	40	119	11	89,807	93,852	229	115	21	22	1	129
Wash	119	-	11	-	6,662	7,205	30	19	-	5	-	15
Oreg	47	-	-	-	3,756	4,714	30	10	4	-	-	-
Calif	2,232	36	105	11	76,411	78,418	167	85	17	17	1	89
Alaska	11	-	3	-	2,009	2,192	2	1	-	-	-	-
Hawaii	37	4	-	-	969	1,323	-	-	-	-	-	25
Guam	-	-	-	-	146	156	-	-	-	-	-	1
P R	77	-	5	-	1,755	2,398	7	35	1	2	-	7
V I	3	-	-	-	182	340	-	2	-	-	-	-
Pac Trust Terr	-	-	-	-	338	655	5	-	-	-	-	39
Amer Samoa	-	-	-	-	31	-	1	-	-	-	-	2

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending September 20, 1986 and September 21, 1985 (38th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum. 1986	1986	Cum. 1986	1986	Cum. 1986	Cum. 1985	Cum. 1986	1986	Cum. 1986	1986	Cum. 1986	Cum. 1985	1986	Cum. 1986	Cum 1985
UNITED STATES	780	7	5,171	2	258	2,471	1,864	46	3,542	120	2,304	2,280	8	415	555
NEW ENGLAND	51	1	83	-	14	126	128	-	53	2	123	107	-	9	12
Maine	2	-	13	-	-	1	23	-	-	-	2	8	-	-	-
N.H.	3	1	43	-	-	-	6	-	13	1	61	40	-	1	2
Vt.	1	-	-	-	-	-	16	-	3	-	3	3	-	1	-
Mass.	28	-	24	-	12	118	28	-	9	-	28	35	-	4	6
R.I.	7	-	2	-	-	-	18	-	9	-	5	14	-	2	-
Conn.	10	-	1	-	2	7	37	-	19	1	24	7	-	1	4
MID ATLANTIC	107	-	1,663	2	29	205	303	-	165	5	156	142	-	31	217
Upstate N.Y.	39	-	77	2†§	23	85	100	-	55	5	103	77	-	23	17
N.Y. City	29	-	659	-	4	63	65	-	29	-	3	18	-	5	175
N.J.	20	-	905	-	-	28	30	-	38	-	14	5	-	3	11
Pa.	19	-	22	-	2	29	108	-	43	-	36	42	-	-	14
E.N. CENTRAL	49	4	1,032	-	17	527	256	13	2,395	1	277	558	-	39	29
Ohio	14	-	-	-	10	54	104	-	100	-	117	64	-	1	-
Ind.	2	4	29	-	-	57	24	2	34	-	24	174	-	-	1
Ill.	15	-	676	-	4	297	68	8	1,799	-	30	54	-	28	12
Mich.	15	-	58	-	-	60	54	3	256	1	28	41	-	8	15
Wis.	3	-	289	-	3	59	6	-	206	-	78	225	-	2	1
W.N. CENTRAL	24	-	322	-	17	11	89	1	90	45	278	143	-	11	19
Minn.	6	-	45	-	4	6	17	-	1	1	48	72	-	-	2
Iowa	1	-	133	-	1	-	11	1	26	-	18	5	-	1	1
Mo.	10	-	25	-	6	2	31	-	17	-	18	27	-	1	7
N. Dak.	-	-	25	-	1	2	-	-	3	-	4	9	-	1	2
S. Dak.	-	-	-	-	-	-	5	-	1	-	14	2	-	-	-
Nebr.	4	-	-	-	-	-	10	-	-	-	7	4	-	-	-
Kans.	3	-	94	-	5	1	15	-	42	44	169	24	-	8	7
S. ATLANTIC	97	1	555	-	56	309	336	15	176	23	651	432	1	12	50
Del.	1	-	1	-	-	-	2	-	-	-	227	1	-	-	1
Md.	13	-	26	-	9	104	44	-	17	-	139	252	-	-	6
D.C.	1	-	-	-	2	20	4	-	-	-	-	-	-	-	-
Va.	25	-	36	-	24	28	59	-	34	1	34	14	-	-	2
W. Va.	4	-	2	-	-	33	3	1	40	-	23	4	-	-	9
N.C.	5	-	3	-	1	9	56	-	14	3	61	21	-	-	-
S.C.	6	-	274	-	-	3	30	-	12	3	16	2	-	-	3
Ga.	9	-	79	-	14	8	50	13	28	11	122	84	-	-	-
Fla.	33	1	134	-	6	104	88	1	31	5	29	54	1	12	29
E.S. CENTRAL	18	-	58	-	9	7	102	-	28	1	44	42	-	4	3
Ky.	5	-	-	-	6	5	24	-	6	-	5	8	-	4	3
Tenn.	1	-	55	-	1	1	37	-	17	1	16	19	-	-	-
Ala.	8	-	1	-	1	-	29	-	4	-	23	11	-	-	-
Miss.	4	-	2	-	1	1	12	-	1	-	-	4	-	-	-
W.S. CENTRAL	75	1	599	-	38	429	166	3	157	15	189	324	5	62	32
Ark.	-	-	276	-	2	-	25	-	7	-	12	12	-	-	1
La.	14	-	4	-	-	42	23	1	3	-	13	11	-	-	-
Okla.	9	-	37	-	2	1	22	N	N	6	101	141	-	-	1
Tex.	52	1	282	-	34	386	96	2	147	9	63	160	5	62	30
MOUNTAIN	30	-	300	-	26	534	93	6	215	5	222	164	-	23	6
Mont.	-	-	-	-	8	137	8	-	5	-	14	8	-	2	-
Idaho	1	-	1	-	-	137	3	1	8	-	33	11	-	-	2
Wyo.	-	-	-	-	-	-	2	-	-	-	4	-	-	1	-
Colo.	8	-	2	-	5	13	15	-	12	3	62	63	-	1	-
N. Mex.	5	-	32	-	7	6	9	N	N	-	20	11	-	-	2
Ariz.	10	-	252	-	6	241	21	5	175	-	50	27	-	2	1
Utah	3	-	12	-	-	-	9	-	10	2	35	44	-	14	-
Nev.	3	-	1	-	-	-	26	-	5	-	4	-	-	3	1
PACIFIC	329	-	559	-	52	323	391	8	263	23	364	368	2	224	187
Wash.	22	-	158	-	25	72	54	-	8	5	107	60	1	15	14
Oreg.	15	-	4	-	4	5	31	N	N	-	10	40	-	1	1
Calif.	291	-	370	-	22	222	290	8	231	16	235	222	1	203	123
Alaska	-	-	-	-	-	-	11	-	6	-	2	29	-	-	1
Hawaii	1	-	27	-	1	24	5	-	18	2	10	17	-	5	48
Guam	1	-	4	-	1	11	-	-	4	-	-	-	-	3	2
P.R.	4	-	33	-	-	63	3	-	31	-	13	10	-	60	25
V.I.	-	-	-	-	-	10	-	-	13	-	-	-	-	-	-
Pac. Trust Terr.	-	-	-	-	-	-	1	-	10	-	-	-	-	2	-
Amer. Samoa	-	-	2	-	-	-	-	-	4	-	-	-	-	1	-

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

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

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending September 20, 1986 and September 21, 1985 (38th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1986	Cum. 1985	1986	Cum. 1986	Cum. 1985	Cum. 1986	Cum. 1986	Cum. 1986	Cum. 1986
UNITED STATES	18,880	19,373	6	15,780	15,431	106	211	606	4,008
NEW ENGLAND	349	418	-	500	525	1	12	12	5
Maine	15	13	-	33	38	-	-	-	-
N.H.	10	29	-	19	18	-	-	2	-
Vt	8	6	-	14	5	-	-	-	-
Mass	192	201	-	259	315	1	10	4	-
R.I.	18	14	-	40	38	-	-	3	3
Conn	106	155	-	135	111	-	2	3	2
MID. ATLANTIC	2,714	2,594	-	3,192	2,847	1	17	30	489
Upstate N.Y.	140	185	-	460	503	-	3	18	64
N.Y. City	1,536	1,589	-	1,652	1,368	-	8	5	-
N.J.	484	508	-	561	390	1	5	2	16
Pa.	554	312	-	519	586	-	1	5	409
E.N. CENTRAL	700	748	1	1,899	1,885	-	17	56	103
Ohio	97	114	-	334	334	-	4	51	9
Ind.	86	67	-	204	237	-	2	-	16
Ill.	351	362	-	797	807	-	2	2	29
Mich.	125	157	1	471	397	-	7	3	21
Wis.	41	48	-	93	110	-	2	-	28
W.N. CENTRAL	158	159	1	472	426	31	8	39	635
Minn.	28	34	-	110	90	-	1	1	90
Iowa	6	17	-	39	44	1	-	1	146
Mo.	85	78	-	238	210	23	6	20	65
N. Dak.	3	2	-	6	8	-	-	1	134
S. Dak.	4	5	-	23	21	2	-	6	126
Nebr.	11	7	1	7	13	1	-	4	25
Kans.	21	16	-	49	40	4	1	6	49
S. ATLANTIC	5,735	5,734	1	3,078	3,127	9	32	277	960
Del.	44	28	-	33	31	-	1	1	1
Md.	316	344	-	233	278	2	11	28	467
D.C.	214	247	-	104	123	1	4	-	26
Va.	265	216	-	259	274	2	6	44	137
W. Va.	18	15	-	90	81	-	3	8	35
N.C.	364	495	-	426	387	1	3	100	9
S.C.	479	605	1	399	386	-	-	62	47
Ga.	1,101	1,004	-	477	530	3	-	32	157
Fla.	2,934	2,780	-	1,057	1,037	-	4	2	81
E.S. CENTRAL	1,256	1,458	-	1,393	1,372	8	3	80	262
Ky.	58	49	-	330	330	3	-	19	71
Tenn.	459	463	-	402	391	4	1	35	97
Ala.	409	470	-	446	411	1	1	15	92
Miss.	330	476	-	215	240	-	1	11	2
W.S. CENTRAL	3,746	4,454	1	1,974	1,910	47	15	103	576
Ark.	175	224	-	266	207	34	-	8	131
La.	641	785	-	320	265	1	1	-	17
Okla.	101	135	-	187	187	7	1	80	52
Tex.	2,829	3,310	1	1,201	1,251	5	13	15	376
MOUNTAIN	427	506	2	370	409	7	11	8	558
Mont.	6	5	-	20	46	1	1	4	178
Idaho	10	4	1	17	20	-	-	-	8
Wyo.	1	7	-	-	5	-	-	1	236
Colo.	105	130	-	31	50	3	1	3	26
N. Mex.	51	95	-	72	72	1	-	-	6
Ariz.	171	232	-	179	178	-	6	-	93
Utah	13	5	1	28	12	1	2	-	3
Nev.	70	28	-	23	26	1	1	-	8
PACIFIC	3,795	3,302	-	2,902	2,930	2	96	1	420
Wash.	110	86	-	139	165	-	3	-	5
Oreg.	84	69	-	98	96	-	-	-	-
Calif.	3,575	3,094	-	2,492	2,458	1	88	1	407
Alaska	1	2	-	37	71	1	1	-	8
Hawaii	25	51	-	136	140	-	4	-	-
Guam	1	2	-	34	34	-	1	-	-
P.R.	661	594	-	245	262	-	5	-	35
V.I.	1	2	-	1	1	-	-	-	-
Pac. Trust Terr.	200	92	-	52	44	-	45	-	-
Amer. Samoa	-	-	-	5	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending September 20, 1986 (38th Week)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	656	439	135	44	22	16	41
Boston, Mass.	176	104	42	15	9	6	19
Bridgeport, Conn.	37	29	5	2	1	-	4
Cambridge, Mass.	23	19	3	1	-	-	2
Fall River, Mass.	31	23	6	1	1	-	-
Hartford, Conn.	67	35	20	7	2	3	1
Lowell, Mass.	22	13	8	-	1	-	1
Lynn, Mass.	18	12	5	1	-	-	-
New Bedford, Mass.	19	17	2	-	-	-	-
New Haven, Conn.	56	43	4	3	3	3	3
Providence, R.I.	65	42	17	3	-	3	3
Somerville, Mass.	9	7	2	-	-	-	-
Springfield, Mass.	50	33	9	5	3	-	5
Waterbury, Conn.	25	16	6	1	2	-	1
Worcester, Mass.	58	46	6	5	-	1	2
MID ATLANTIC	2,564	1,655	524	249	72	58	111
Albany, N.Y.	49	34	7	5	1	2	-
Allentown, Pa.	20	19	1	-	-	-	-
Buffalo, N.Y.	134	88	31	10	-	5	5
Camden, N.J.	42	26	11	2	-	3	3
Elizabeth, N.J.	29	20	6	2	-	1	3
Erie, Pa.†	37	26	10	1	-	-	3
Jersey City, N.J.	43	30	10	2	1	-	-
N.Y. City, N.Y.	1,328	843	269	145	46	25	55
Newark, N.J.	86	44	15	20	4	3	6
Paterson, N.J.	33	20	9	3	1	-	2
Philadelphia, Pa.	316	194	70	33	13	6	19
Pittsburgh, Pa.†	71	44	17	4	1	5	1
Reading, Pa.	28	18	4	-	-	-	3
Rochester, N.Y.	112	75	22	8	2	5	3
Schenectady, N.Y.	33	26	7	-	-	-	-
Scranton, Pa.†	33	24	8	1	-	-	3
Syracuse, N.Y.	66	52	9	3	1	1	1
Trenton, N.J.	37	23	8	4	1	1	-
Utica, N.Y.	31	26	2	3	-	-	3
Yonkers, N.Y.	36	23	8	3	1	1	1
E.N. CENTRAL	2,376	1,531	496	181	81	87	70
Akron, Ohio	71	44	13	4	5	5	1
Canton, Ohio	39	30	6	2	1	-	1
Chicago, Ill.§	564	362	125	45	10	22	16
Cincinnati, Ohio	137	96	24	8	2	7	8
Cleveland, Ohio	199	113	54	18	8	6	9
Columbus, Ohio	126	70	31	11	7	7	3
Dayton, Ohio	121	80	27	10	2	2	-
Detroit, Mich.	233	140	44	29	12	8	6
Evansville, Ind.	57	40	9	4	1	3	1
Fort Wayne, Ind.	59	48	8	1	1	1	1
Gary, Ind.	20	10	6	3	-	1	-
Grand Rapids, Mich.	74	52	14	4	2	2	-
Indianapolis, Ind.	189	107	48	12	13	9	3
Madison, Wis.	33	20	6	3	1	3	3
Milwaukee, Wis.	141	109	21	5	3	3	7
Peoria, Ill.	39	33	3	-	-	3	5
Rockford, Ill.	52	34	10	4	3	1	3
South Bend, Ind.	43	28	10	2	3	-	-
Toledo, Ohio	105	69	21	10	2	3	2
Youngstown, Ohio	74	46	16	6	5	1	1
W.N. CENTRAL	730	501	137	43	23	26	27
Des Moines, Iowa	62	38	14	5	3	2	2
Duluth, Minn. §	32	24	7	1	-	-	-
Kansas City, Kans.	35	19	9	4	2	1	2
Kansas City, Mo.	114	73	27	9	3	2	3
Lincoln, Nebr.	38	29	3	3	2	1	2
Minneapolis, Minn.	80	52	16	4	3	5	1
Omaha, Nebr.	80	52	18	4	-	6	4
St. Louis, Mo.	155	113	24	7	4	7	8
St. Paul, Minn.	74	57	10	3	3	1	-
Wichita, Kans.	60	44	9	3	3	1	5
S. ATLANTIC	1,392	876	296	120	38	62	42
Atlanta, Ga.	185	98	50	21	12	4	4
Baltimore, Md.	221	152	40	13	6	10	5
Charlotte, N.C.	71	44	22	3	1	1	4
Jacksonville, Fla.	122	73	33	12	3	1	3
Miami, Fla.	111	60	32	15	2	2	3
Norfolk, Va.	65	46	10	4	-	5	1
Richmond, Va.	75	57	11	5	-	2	2
Savannah, Ga.	55	36	6	5	2	6	1
St. Petersburg, Fla.	180	148	15	8	2	7	11
Tampa, Fla.	74	45	12	8	2	7	6
Washington, D.C.	202	94	59	26	6	17	2
Wilmington, Del.	31	23	6	-	2	-	-
E.S. CENTRAL	875	531	220	75	23	26	34
Birmingham, Ala.	129	84	30	8	3	4	4
Chattanooga, Tenn.	73	48	17	4	3	1	3
Knoxville, Tenn.	58	44	9	1	1	3	5
Louisville, Ky.	123	74	29	10	4	6	5
Memphis, Tenn.	268	142	75	45	4	2	6
Mobile, Ala.	95	55	31	3	4	2	5
Montgomery, Ala.	22	17	1	-	-	4	-
Nashville, Tenn.	107	67	28	4	4	4	6
W.S. CENTRAL	1,306	774	277	134	63	58	57
Austin, Tex.	56	32	12	8	4	-	3
Baton Rouge, La.	41	20	11	4	3	3	1
Corpus Christi, Tex.	47	30	9	4	3	1	3
Dallas, Tex.	208	122	40	24	11	11	6
El Paso, Tex.	75	45	11	7	6	6	3
Fort Worth, Tex.	100	56	16	10	9	9	3
Houston, Tex.	238	126	59	36	10	7	7
Little Rock, Ark.	57	28	19	7	1	2	4
New Orleans, La.	93	53	27	6	4	3	1
San Antonio, Tex.	212	138	43	13	8	10	10
Shreveport, La.	60	31	16	9	1	3	2
Tulsa, Okla.	119	93	14	6	3	3	14
MOUNTAIN	613	386	126	42	34	25	21
Albuquerque, N.Mex.	76	45	13	11	5	2	-
Colo. Springs, Colo.	50	37	8	1	-	4	9
Denver, Colo.	100	68	14	7	6	5	4
Las Vegas, Nev.	77	47	25	2	2	1	-
Ogden, Utah	14	12	1	-	1	-	1
Phoenix, Ariz.	133	66	33	12	15	7	1
Pueblo, Colo.	19	16	1	1	1	-	1
Salt Lake City, Utah	49	27	11	4	2	5	1
Tucson, Ariz.	95	68	20	4	2	1	4
PACIFIC	1,738	1,128	337	154	60	51	100
Berkeley, Calif.	10	6	2	1	1	-	-
Fresno, Calif.	71	49	13	4	3	2	9
Glendale, Calif.	21	13	6	2	-	-	1
Honolulu, Hawaii	63	42	13	6	2	-	13
Long Beach, Calif.	94	59	27	5	1	2	6
Los Angeles, Calif.	509	321	92	53	25	13	20
Oakland, Calif.	66	45	7	9	3	2	5
Pasadena, Calif.	43	36	4	1	1	1	-
Portland, Oreg.	121	88	22	5	5	1	5
Sacramento, Calif.	103	58	26	13	3	3	10
San Diego, Calif.	145	86	25	13	6	12	13
San Francisco, Calif.	150	90	33	19	1	7	5
San Jose, Calif.	136	91	30	9	3	3	9
Seattle, Wash.	126	83	25	10	4	4	1
Spokane, Wash.	46	38	6	1	1	-	2
Tacoma, Wash.	34	23	6	3	1	1	1
TOTAL	12,250††	7,821	2,548	1,042	416	409	503

* 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.

ACIP: Immunization of Children — Continued

EXPERIENCES WITH IMMUNIZATION OF HTLV-III/LAV-INFECTED PERSONS

Some children infected perinatally with HTLV-III/LAV have received routine immunization with OPV and MMR before their illnesses were recognized. Out-patient medical records from New York City and Miami for 213 children with symptomatic HTLV-III/LAV infection (AIDS and ARC), presumably acquired during the perinatal period, were reviewed to determine immunization history and possible vaccine-associated adverse events (*24,25*). One hundred seventy-one children (80%) had received at least one dose of OPV and diphtheria and tetanus toxoids and pertussis vaccine (DTP), 95 (45%) had completed primary immunization with OPV and DTP (three doses and four doses, respectively), and 63 (30%) had received MMR or measles vaccine. Thirty-eight (39%) of 98 children who had available records of dates of immunization and onset of symptoms consistent with HTLV-III/LAV infection had received at least one live-virus vaccine after symptom onset. No serious or unusual adverse events were noted in the medical records of these children following immunization.

Only one adverse event following immunization of an HTLV-III/LAV-infected person has been documented. A 19-year-old asymptomatic army recruit received multiple immunizations during basic training, including primary immunization with smallpox vaccine (*26*). Two and one-half weeks later, he developed cryptococcal meningitis and was diagnosed as having AIDS. One and one-half weeks later, while being treated for meningitis, he developed lesions of disseminated vaccinia. He was treated with vaccinia immune globulin and recovered from vaccinia, but has since died of AIDS.

CDC has not received any reports of vaccine-associated poliomyelitis among HTLV-III/LAV-infected vaccine recipients or their contacts or among other persons known to be infected with HTLV-III/LAV. There have been no reports of serious adverse events following MMR administration from areas in which pediatric AIDS cases are occurring.

IMMUNIZING CHILDREN WHO MAY BE INFECTED WITH HTLV-III/LAV: SPECIAL CONSIDERATIONS

Children born to women who are at risk of HTLV-III/LAV infection or who are known to be infected with HTLV-III/LAV should be evaluated for infection with the virus—including being tested for antibody (*4,27*). For asymptomatic children presenting for immunization, this evaluation and testing is not necessary to make decisions about immunizations. Children infected with HTLV-III/LAV are best cared for by pediatricians knowledgeable in the management of patients with this infection. Since little information is currently available on the safety and efficacy of immunizing children who may be infected with HTLV-III/LAV, special studies of these children need to be conducted.

RECOMMENDATIONS

Children with symptomatic HTLV-III/LAV infection

A. Live-virus and live-bacterial vaccines (e.g., MMR, OPV, BCG) should not be given to children and young adults who are immunosuppressed in association with AIDS or other clinical manifestations of HTLV-III/LAV infection. For routine immunizations, these persons should receive inactivated poliovaccine (IPV) and should be excused for medical reasons from regulations requiring measles, rubella, and/or mumps immunization.

B. Concerns have been raised that stimulation of the immune system by immunization with inactivated vaccines in these individuals might cause deterioration in immunologic function. However, such effects have not been noted thus far among children with AIDS or among other immunosuppressed individuals after immunization with inactivated vaccines. The potential benefits of immunization of these children outweigh the concerns of theoretical adverse events. Immunization with DTP, IPV, and *Haemophilus influenzae* type b vaccines

ACIP: Immunization of Children — Continued

is recommended in accordance with the ACIP recommendations, although immunization may be less effective than it would be for immunocompetent children (*28-30*).

C. As with other conditions that produce chronic immunosuppression, the Committee recommends annual immunization with inactivated influenza vaccine for children over 6 months of age and one-time administration of pneumococcal vaccine for children over 2 years of age (*31-33*).

D. Children and young adults with AIDS or other clinical manifestations of HTLV-III/LAV infection—as other immunosuppressed patients—may be at increased risk of having serious complications of infectious diseases, such as measles and varicella. Following significant exposure to measles or varicella, these persons should receive passive immunization with immune globulin (IG) or varicella-zoster immune globulin (VZIG), respectively (*20,34*).¶

Children with previously diagnosed asymptomatic HTLV-III/LAV infection

A. A small number of children and young adults known to be infected with HTLV-III/LAV but without overt clinical manifestations of immunosuppression have received live-virus vaccines without adverse consequences. Further experience needs to be monitored, but on the basis of data now available, the Committee believes that such persons should be vaccinated with MMR in accordance with ACIP recommendations (*20-22*). Vaccinees should be followed for possible adverse reactions and for the occurrence of vaccine-preventable diseases since immunization may be less effective than for uninfected persons.

B. Available data suggest that OPV can be administered without adverse consequences to HTLV-III/LAV-infected children who do not have overt clinical manifestations of immunosuppression. However, because family members of such children may be immunocompromised due to AIDS or HTLV-III/LAV infection and therefore at increased risk of paralysis from contact with spread vaccine virus, it may be prudent to use IPV routinely to immunize asymptomatic children with previously diagnosed HTLV-III/LAV infection (*28*).

C. Immunization with DTP and *Haemophilus influenzae* type b vaccines is recommended in accordance with ACIP recommendations (*29,30*).

Children not known to be infected with HTLV-III/LAV

Children and young adults not known to be infected with HTLV-III/LAV should be immunized in accordance with ACIP recommendations.

Children residing in the household of a patient with AIDS

Children whose household members are known to be immunocompromised due to AIDS or other HTLV-III/LAV infections should not receive OPV because vaccine viruses are excreted by the recipient of the vaccine and may be communicable to their immunosuppressed contacts. These children should receive IPV for routine immunization (*28*). Because extensive experience has shown that live, attenuated MMR vaccine viruses are not transmitted from vaccinated individuals to others, MMR may be given to a child residing in the household of a patient with AIDS (*20-22*).

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¶Some physicians administer full replacement doses of intravenous IG on a 2-4 week schedule to children with AIDS and other clinical manifestations of HTLV-III/LAV infection. This therapy may provide some protection against such diseases as measles and varicella.

ACIP: Immunization of Children — Continued

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ACIP: Immunization of Children — Continued

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Epidemiologic Notes and Reports

Toxigenic *Vibrio cholerae 01* Infections — Louisiana and Florida

Four cases of cholera acquired in Louisiana and one case acquired in Florida have been detected since mid-August 1986. All five patients were hospitalized with severe diarrhea and had stool cultures yielding toxigenic *Vibrio cholerae 01*, serotype Inaba.

The four Louisiana patients had onset between August 8 and September 9; they lived in New Orleans and three towns south and west of New Orleans. The single confirmed case in Florida occurred in a woman from California who arrived in Miami on August 18 and became ill with diarrhea on August 24. The patients had no known common source exposures, and the vehicles of transmission are still under investigation, but all had eaten seafood within 5 days before onset of symptoms. The Louisiana patients had eaten crabs and shrimp from multiple sites along the Louisiana coast of the Gulf of Mexico. The Florida patient had eaten raw oysters; their source is being traced.

Reported by L McFarland, DrPH, Chief, Epidemiology Section, J Mathison, MD, State Epidemiologist, HB Bradford, PhD, Director of Laboratory Sciences, Louisiana Dept of Health and Human Resources; MH Wilder, MD, Acting State Epidemiologist, W Riley, PhD, Miami Regional Laboratory, C Shank, Jacksonville Central Laboratory, Florida Dept of Health and Rehabilitative Svcs; Enteric Diseases Br, Div of Bacterial Diseases, Center for Infectious Diseases, Div of Field Svcs, Epidemiology Program Office, CDC.

Editorial Note: Although the vehicles of transmission for these cases are as yet unknown, the patients' exposures to seafood have been of particular interest because seafood has been an important vehicle for cholera in several countries, including the United States. Toxigenic *V. cholerae 01*, serotype Inaba, biotype El Tor, appears to have an environmental reservoir on the U.S. Gulf Coast, and domestically acquired cases of cholera with identical organisms were detected in 1973, 1978, 1981, and 1984 (*1-4*). Almost all of the cases occurred during the summer and fall. The vehicles of transmission implicated in those instances were boiled or steamed crabs and rice that was contaminated after being boiled. *V. cholerae 01* has been shown to survive in crabs boiled for 8 minutes, but not in crabs boiled for 10 minutes (*1*).

Toxigenic *V. cholerae 01* multiplies readily in a variety of foods. Foodborne cholera is prevented by the same measures that are routinely stressed in prevention of other bacterial foodborne diseases: thorough cooking of any possibly contaminated foods, preventing contamination of foods after cooking, and storing foods that are not eaten soon after cooking at temperatures too low (below 4 C) or too high (above 60 C) to permit multiplication of the organism. Waterborne cholera is prevented by chlorination of water supplies. The disease is rarely, if ever, spread by person-to-person contact.

Cholera can be confirmed by stool culture, preferably on thiosulfate-citrate-bile salts-sucrose (TCBS) agar. If *V. cholerae* is isolated from stool, the isolate should be serogrouped and assayed for cholera toxin production; arrangements for this testing can be made through

Vibrio cholerae 01 *Infections — Continued*

state public health laboratories. Cases of cholera should be reported immediately to state epidemiologists.

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Errata: Vol. 35, No. 32

p. 528 In the article, "Measles—United States, First 26 Weeks, 1986," the last sentence in the initial paragraph of the Editorial Note should read: "Although the number of reported cases still represents less than 1% of that in the prevaccine era, when an average of more than 500,000 cases was reported annually . . . ."

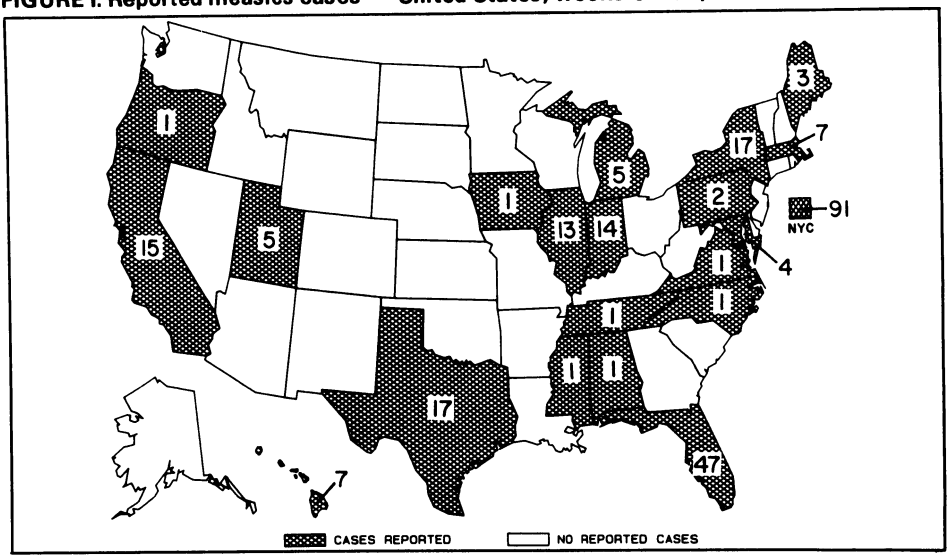
Vol. 35, No. 25

p. 415 In the article entitled "The Secretary's Community Health Promotion Awards," the third listing under *Nutrition* should read: "First Free Cholesterol Screening Project (Grand Island, Nebraska)."

Vol 35, No. 14

p. 233 In the article entitled "Safety of Therapeutic Immune Globulin Preparations with Respect to Transmission of Human T-Lymphotopic Virus Type III/Lymphadenopathy-Associated Virus Infection," the fourth reference should read: "Wells MA, Wittex, AE, Epstein JS, et al. Inactivation and partition of human T-cell lymphotropic virus, type III, during ethanol fractionation of plasma. Transfusion 1986;26:210-3."

FIGURE I. Reported measles cases — United States, weeks 34-37, 1986



The *Morbidity and Mortality Weekly Report* is prepared by the Centers for Disease Control, Atlanta, Georgia, and available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

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

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

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HHS Publication No. (CDC) 86-8017