CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

March 26, 1999 / Vol. 48 / No. 11

MMWR™
MORBIDITY AND MORTALITY WEEKLY REPORT

Norwalk-Like Viral Gastroenteritis in U.S. Army Trainees — Texas, 1998

During August 27–September 1, 1998, 99 (12%) of 835 soldiers in one unit at a U.S. Army training center in El Paso, Texas, were hospitalized for acute gastroenteritis (AGE). Their symptoms included acute onset of vomiting, abdominal pain, diarrhea, and fever. Review of medical center admission records for AGE during the previous year indicated that fewer than five cases occurred each month. This report describes the outbreak investigation initiated on August 30 by a U.S. Army Epidemiologic Consultation Service (EPICON) team; the findings indicated the outbreak was caused by a Norwalk-like virus (NLV).

The EPICON team reviewed data from the inpatient records of 90 ill soldiers. AGE was defined as three or more loose stools and/or vomiting within a 24-hour period in a soldier or employee at the training center during August 26–September 1. Illness was accompanied by a minimally elevated leukocyte count, mild thrombocytopenia, and low-grade fever. The median duration of hospitalization was 24 hours (range: 12–72 hours). Stool samples collected from persons with AGE on hospital admission were negative for bacterial and parasitic pathogens. Of 24 stool specimens sent to CDC for viral agent identification, 17 were positive by reverse transcriptase polymerase chain reaction assays for NLVs (genogroup 2).

Interviews with foodhandlers in the base's two dining facilities (DF1 and DF2) revealed illness in a confection baker, who had become ill in DF1 while baking crumb cake, pie, and rolls on August 26. One other DF1 employee who was not a foodhandler also reported self-limited gastrointestinal illness during August 27–29. No worker in DF2 reported illness.

Cultures of food specimens from the ice cream dispenser in DF1 grew nonpathogenic coliform bacteria (*Citrobacter diversus* and *Serratia liquefaciens*); however, the sample was at room temperature before culture. *Enterobacter cloacae* coliform bacteria were cultured from the soda fountain in DF2. Water samples taken from multiple sites in the training compound and from elsewhere on post were all negative for coliform contamination.

A questionnaire about food preferences, based on the previous week's menu, was administered to 86 hospitalized soldiers (84 of whom had eaten in DF1 during the 10 days before answering the questionnaire) and to 237 randomly selected soldiers from the training unit. Of the 237 nonhospitalized soldiers, 41 (17%) did not eat at DF1

Gastroenteritis — Continued

during the 10 days before answering the questionnaire; 40 (17%) had illnesses that met the case definition. Thus, cases of AGE were characterized in 126 soldiers (Figure 1).

To determine the point source of the outbreak, cases with onset during August 27–28 (n=98) were analyzed separately for odds ratios (ORs) of selected exposures (Table 1). The univariate OR for illness associated with dining at DF1 during the week before the outbreak was 9.8 (95% confidence interval=2.8–40.2). Two soldiers who ate exclusively at DF2 became ill, and one ill soldier reported not eating at either facility. Food items (crumb cake, pie, cinnamon rolls, and ice cream) and soda fountain dispensers were associated with illness by univariate analysis. Using multivariate analysis, only DF1 and the carbonated beverage dispensers remained strongly associated with illness (Table 1).

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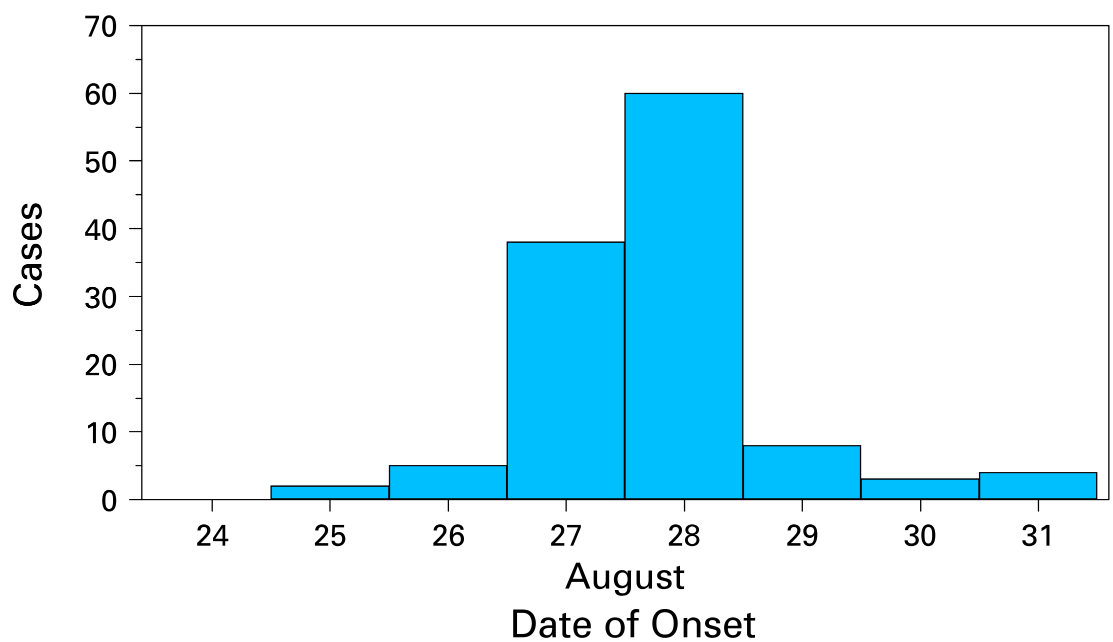
Editorial Note: NLVs, previously known as small round-structured viruses, are the most common cause of nonbacterial gastroenteritis outbreaks in adults (*1,2*). Classified in the family *Caliciviridae* (*1,2*), NLVs are transmitted by the fecal-oral route and have been implicated in 42%–71% of viral outbreaks associated with contaminated water and food since the Norwalk virus was identified (*1,3,4*). NLV outbreaks have been caused by eating contaminated raw shellfish and by unsanitary food preparation practices by foodhandlers (*1,3–6*). NLVs are hardy, ubiquitous, and extremely persistent in the environment, resisting disinfection and chlorination, and have caused serial gastroenteritis outbreaks (*1,3,4*).

FIGURE 1. Number of cases of Norwalk-like gastroenteritis in U.S. Army trainees, by date of onset — Texas, August 1998



Gastroenteritis — Continued

TABLE 1. Odds ratios for selected exposures in an outbreak of Norwalk-like viral gastroenteritis in U.S. Army trainees — Texas, August 1998

	Univariate analysis		Multivariate analysis	
Exposure	**Odds ratio**	**(95% CI*)**	**Odds ratio**	**(95% CI)**
Ever ate at dining facility 1 (DF1) during the week before illness	9.8	(2.8–40.2)	7.3	(2.0–26.4)
Ate preferentially at DF1	3.7	(2.0– 6.9)	2.4	(1.3– 4.5)
Ate at dining facility 2 during the week before illness	1.1	(0.5– 2.3)	0.6	(0.2– 1.4)
Drank carbonated beverages	3.8	(2.0– 7.2)	2.6	(1.3– 5.0)
Ate crumb cake	2.4	(1.2– 4.8)	1.8	(0.8– 3.8)
Ate ice cream	1.7	(1.1– 3.0)	1.1	(0.6– 2.0)
Ate cinnamon roll	1.7	(0.8– 3.7)	1.3	(0.6– 3.0)
Ate pie	1.5	(0.9– 2.7)	1.1	(0.6– 2.0)
Used ice	1.5	(0.8– 2.9)	1.1	(0.6– 2.0)

*Confidence interval.

The epidemiologic evidence described in this report indicates that the outbreak was a point-source, propagated, foodborne viral illness. Although cases occurred before the onset of acute illness in the confection baker, he could have been the point source because he probably shed virus before the onset of clinical symptoms. The strong association with drinking carbonated beverages is not easily explained and may represent increased thirst among ill persons. The use of the Army hospital as a quarantine bay probably decreased secondary propagation of the illness.

Prevention of future outbreaks of NLVs in U.S. military dining facilities or any food service establishment depends on vigilance and rigorous enforcement of simple measures to prevent food contamination. These measures include handwashing, exclusion of ill foodhandlers from the workplace, and basic hygiene and sanitation measures.

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Mass Treatment of Humans Who Drank Unpasteurized Milk from Rabid Cows — Massachusetts, 1996–1998

Rabies is a viral zoonosis that is usually transmitted by the bite of an infected mammal. However, in Massachusetts, two incidents have been reported since 1996 of potential mass exposures to rabies through drinking unpasteurized milk. This report presents the investigations of these two incidents.

Incident 1

On November 12, 1998, the Virology Laboratory of the Massachusetts Department of Public Health (VLMDPH) diagnosed rabies in a 6-year-old Holstein dairy cow from a farm in Worcester County. Further analysis of the cow's brain tissue with monoclonal antibodies revealed the cow was infected with a variant of the rabies virus associated with raccoons in the eastern United States.

The cow had loss of appetite beginning November 4 and hypersalivation beginning November 6. An intestinal obstruction was suspected initially as the cause of illness. However, the cow became ataxic and aggressive and died on November 8.

The cow had been milked 12 times during the week before death. Milk from the cow had been pooled with milk collected from other cows, and an unpasteurized portion was distributed for human consumption. Public health investigations identified 66 persons who drank unpasteurized milk collected from this dairy during October 23–November 8. All 66 received rabies postexposure prophylaxis (PEP). In addition, five persons received PEP because of exposure to the cow's saliva during the 15 days preceding her death. Neither milk nor mammary tissue from the rabid cow was available for examination for the presence of rabies virus.

Incident 2

On November 12, 1996, the VLMDPH diagnosed rabies in a 14-year-old Jersey dairy cow from a different farm in Worcester County. Analysis with monoclonal antibodies revealed the cow was infected with a variant of the rabies virus associated with raccoons in the eastern United States.

The cow developed tenesmus and depression on November 6 and was euthanized on November 10. The cow had been milked during October 26–November 2. An investigation identified 14 persons who drank unpasteurized milk collected from this cow during this period. All 14 persons received rabies PEP. In addition, four persons received PEP because of exposure to the rabid cow's saliva during the 15 days preceding her death.

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Editorial Note: Management of mass human exposures to rabid animals requires public health officials to balance knowledge of rabies epidemiology, risk for transmission, and pathogenesis with the perceived risk for death among exposed persons. Because of the nearly 100% case-fatality ratio of human rabies and the virtually complete effectiveness of PEP, many mass exposure incidents prompt administration of rabies immune globulin and vaccine, even if the circumstances do not meet the criteria for exposure (*1–3*).

Rabies — Continued

During 1990–1996, CDC received reports of 22 incidents of mass human exposures to rabid or presumed-rabid animals in the United States, resulting in 1908 persons receiving PEP (median: 33 persons per incident) (*4*). In Massachusetts during 1991–1995, the median cost for PEP was $2376 per person, including physician and facility charges (*5*). Prolific administration of PEP in response to these incidents strains the availability of rabies biologics, especially human rabies immune globulin, which has a short shelf-life and tightly controlled distribution by the manufacturers.

An average of 150 rabid cattle have been reported to CDC in the United States each year since 1990 (*6*). In addition to concerns about rabies transmission from animals to humans through bites, rabid livestock raise the potential for foodborne transmission. The National Association of State Public Health Veterinarians recommends against consuming tissues and milk from rabid animals (*2*). However, because rabies virus is inactivated by temperatures below those used for cooking and pasteurization, eating cooked meat or drinking pasteurized milk from a rabid animal is not an indication for PEP.

Rabies virus can be transmitted by direct contact with infected material, such as saliva from an animal infected with rabies, and mucous membranes, including the oral and gastric mucosae (*7*). In addition to saliva and neural tissue, rabies virus also has been detected in the kidney, prostate, pancreas, and other tissues and body fluids (*8*). However, saliva and neural tissue are the primary proven vehicles for rabies virus in naturally occurring cases. Anecdotal reports exist of rabies transmission by ingestion of milk from rabid animals (e.g., from a rabid sheep to a nursing lamb) (*7*). In these reports, the more conventional routes (e.g., bite or mucous membrane exposure) could not be completely excluded.

Transmission of rabies virus in unpasteurized milk is theoretically possible. The risk could be defined better if samples of milk and mammary tissue were collected from rabid livestock and assayed for the presence, viability, and infectivity of rabies virus. Regardless of the amount of viable rabies virus that may be shed in cows' milk, the theoretical risk for transmission of rabies from this route can be eliminated if all dairy products are pasteurized before consumption.

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Progress Toward Poliomyelitis Eradication — South East Asia Region, 1997–1998

In 1988, the World Health Assembly resolved to eradicate poliomyelitis by 2000 (*1*). To achieve this goal, in 1994 World Health Organization (WHO) South East Asia Region (SEAR) member countries* accelerated implementation of polio eradication strategies (*2*). In 1994, Thailand became the region's first country to initiate National Immunization Days (NIDs)[†], followed by Bangladesh, Bhutan, India, Indonesia, and Sri Lanka (1995); Myanmar and Nepal (1996); and Democratic People's Republic (DPR) of Korea and Maldives (1997) (*3–6*). This report summarizes the progress in achieving routine and supplemental vaccination coverage and surveillance for cases of acute flaccid paralysis (AFP) and the impact of these activities on polio eradication in the region.

Since 1990, eight SEAR countries reported reaching the universal goal of >80% vaccination of children aged <1 year with one dose of measles-containing vaccine, three doses of diphtheria and tetanus toxoids and pertussis vaccine (DTP3), and three doses of oral poliovirus vaccine (OPV3). In 1997, all countries except Nepal (where coverage was 78%) reported >80% routine coverage of children aged 12–23 months with OPV3.

In 1996, Bangladesh, China, India, Myanmar, Nepal, Pakistan, and Thailand held NIDs in December 1996 and January 1997, the low season for poliovirus transmission (*3*). This effort resulted in vaccination of approximately 243 million (approximately 38%) of the world's children aged <5 years. Other synchronized NIDs were repeated in 1997 and 1998 with intensified activities along the Myanmar-China border. In India, biannual NIDs reached from approximately 79 million children in 1995 to approximately 134 million in 1998 (*5*), the largest public health campaigns conducted in a single country.

AFP surveillance is conducted to identify all possible poliovirus cases to target supplemental vaccination activities. Surveillance relies on establishing an organized facility-based network of reporting units dispersed throughout a country. Epidemiologic and virologic information is collected from each reported AFP case. Virologic support is provided by a network of 16 WHO-accredited laboratories in SEAR (nine in India, three in Indonesia, and one each in Bangladesh, Myanmar, Sri Lanka, and Thailand) Four of these laboratories also conduct intratypic differentiation to determine wild and vaccine-derived strains of poliovirus. The results of virus isolation and clinical follow-up studies are used to classify AFP cases as polio or nonpolio. AFP surveillance is evaluated by two key indicators: the sensitivity of reporting (target: nonpolio AFP rate of at least 1.0 case per 100,000 children aged <15 years), and the completeness of specimen collection (target: two adequate stool specimens from at least 80% of persons with AFP).

In 1993, the Regional Polio Laboratory Network was established in SEAR. In 1997, the posting of national surveillance medical officers in Bangladesh (five in 1995), Indonesia (seven in 1997), India (59 in 1997 and an additional 27 in 1998), and Nepal (five in 1998) substantially strengthened AFP surveillance in this region, especially in India where performance targets were reached within 1 year (*5*).

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*Bangladesh, Bhutan, Democratic People's Republic (DPR) Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, and Thailand.

†Mass campaigns over a short period (days to weeks) in which two doses of oral poliovirus vaccine are administered to all children, usually aged <5 years, regardless of vaccination history, with an interval of 4–6 weeks between doses.

Poliomyelitis — Continued

Since the early 1990s, Sri Lanka consistently has reported an annual nonpolio AFP rate of at least 1.0 (*2*). A nonpolio AFP rate of at least 1.0 also has been reached in Indonesia (1997), India (1998), and Thailand (1998). In 1998, the percentage of AFP cases with two adequate stool specimens collected for virologic culture within 14 days of paralysis onset reached 60% in India, 69% in Myanmar, 78% in Indonesia, 79% in Thailand, and 82% in Sri Lanka. Bhutan, Maldives, and Sri Lanka have had no wild poliovirus isolates for approximately 5 years.

AFP surveillance is less developed in Nepal and Bangladesh (Table 1). The nonpolio AFP rate in Nepal was 0.36 in 1998 compared with 0.26 in 1997, in Bangladesh it was 0.27 in 1998 compared with 0.14 in 1997, and in DPR Korea no cases of AFP were reported in 1998 compared with three in 1997.

From 1997 to 1998, reported polio cases increased in Bangladesh (from 171 cases to 266 cases), Bhutan (from no cases to two cases), India (from 2278 cases to 3323 cases), and Thailand (from 19 cases to 25 cases). During the same period, reported polio cases decreased in Indonesia (from 293 cases to 91 cases) and Myanmar (from 55 cases to 31 cases). In 1997 and 1998, DPR Korea, Maldives, and Sri Lanka reported no polio cases (Figure 1).

In 1998, wild poliovirus types 1 and 3 were isolated only in Bangladesh and India. In 1997, no wild poliovirus type 3 was isolated in Bangladesh. In India, both wild types 1 and 3 continued to circulate widely, but preliminary results of DNA sequencing indicate a substantial reduction in their genetic biodiversity (*5*). Wild poliovirus type 2 was last isolated in 1998 in Uttar Pradesh and Bihar, India. Despite improved surveillance, wild poliovirus was last isolated in Sri Lanka in 1993, in Indonesia in 1995, in Myanmar in 1996, and in Thailand in 1997.

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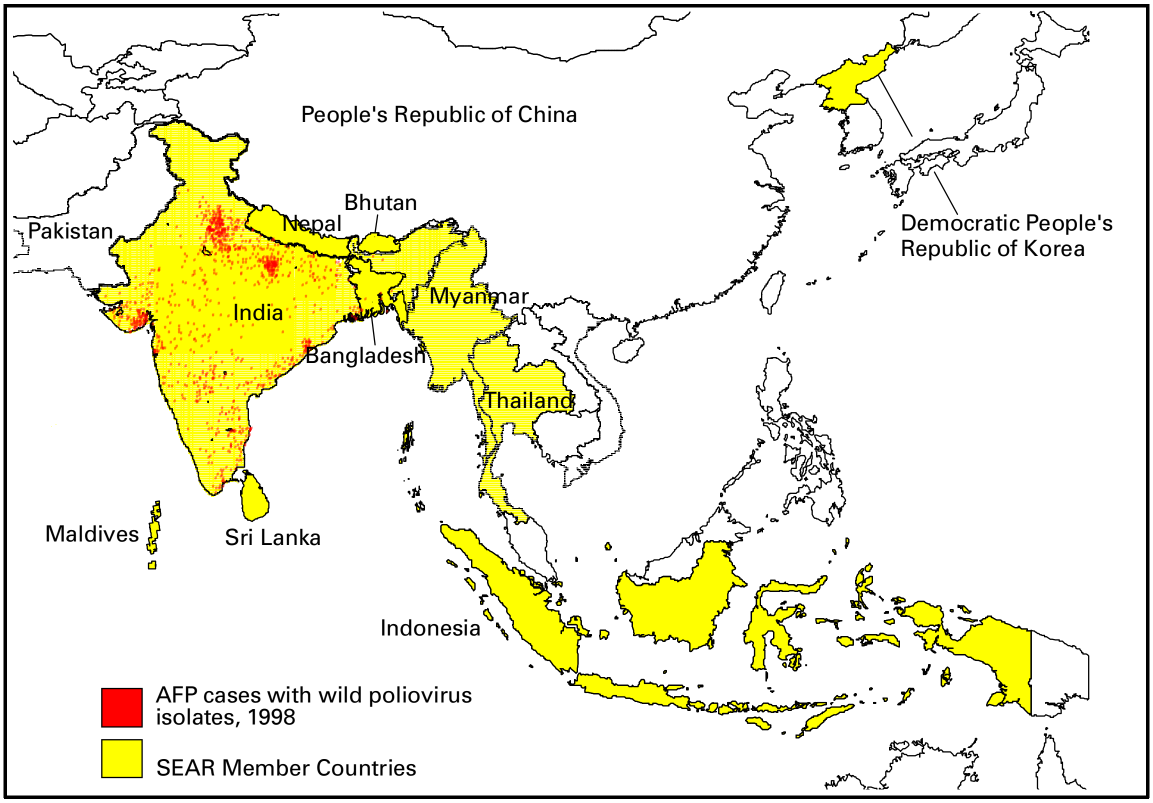
TABLE 1. Number of reported acute flaccid paralysis (AFP) cases, nonpolio AFP rate,* confirmed polio cases, and poliovirus strain detected, by country — South East Asia Region, 1997–1998

Country	No. reported AFP cases		Nonpolio AFP rate		% AFP cases with adequate specimens†		Confirmed cases§ (Wild virus)		Wild virus detected¶
	1997	1998	1997	1998	1997	1998	1997	1998	
Bangladesh	244	470	0.14	0.27	34	49	171 (5)	266 (5)	P1/P3
Bhutan	0	2	0.00	0.00	0	0	0 (0)	2 (0)	—
DPR Korea	3	0	0.01	0.00	0	0	0 (0)	0 (0)	—
India	3,045	9,406	0.22	1.34	34	60	2,278 (706)	3,323 (1,122)	P1/P2/P3
Indonesia	802	779	0.78	1.04	53	78	293 (0)	91 (0)	—
Maldives	1	0	0.84	0.00	100	0	0 (0)	0 (0)	—
Myanmar	172	181	0.75	0.84	58	69	55 (0)	31 (0)	—
Nepal	36	69	0.26	0.36	39	35	12 (1)	29 (0)	—
Sri Lanka	115	95	2.12	1.75	45	82	0 (0)	0 (0)	—
Thailand	131	271	0.50	1.21	65	79	19 (1)	25 (0)	—
Total	**4,549**	**11,273**	**0.32**	**1.15**	**39**	**61**	**2,828 (713)**	**3,767 (1,127)**	

* Per 100,000 children aged <15 years. Does not include AFP cases pending classification, which would inflate the estimate.
† Two specimens collected within 14 days of paralysis onset.
§ Reported confirmed polio cases based on clinical and virologic findings.
¶ Reported wild poliovirus types isolated in 1998.

Poliomyelitis — Continued

FIGURE 1. Acute flaccid paralysis (AFP) cases with wild poliovirus isolates — South East Asia Region (SEAR), 1998

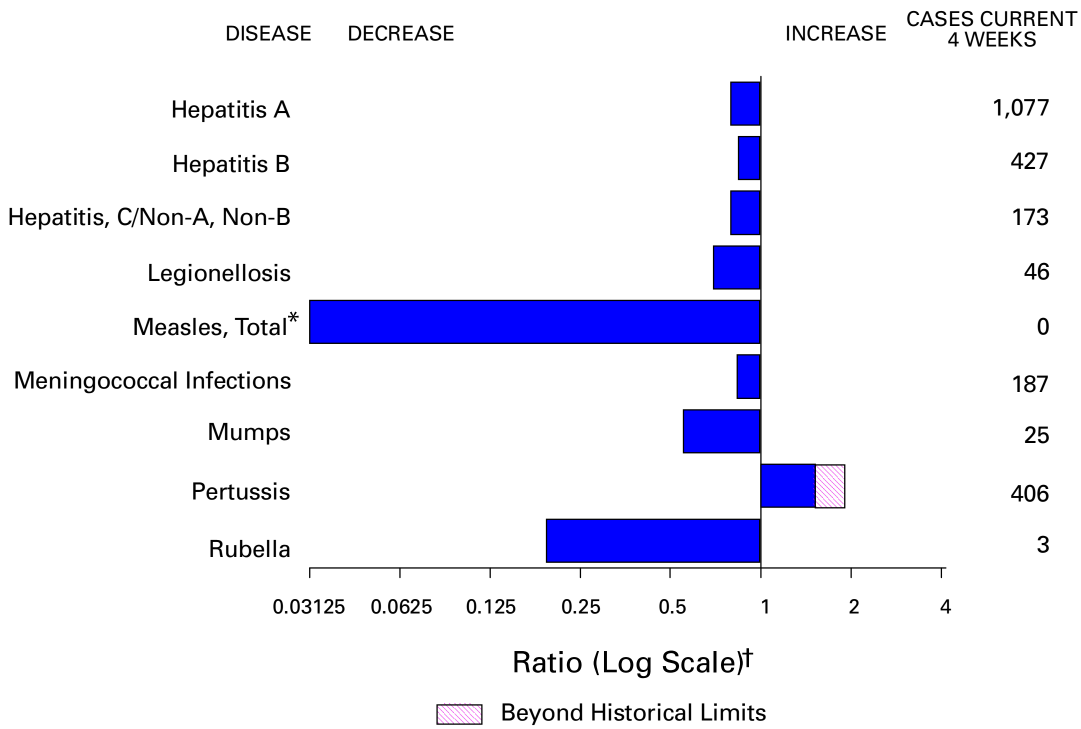


Editorial Note: SEAR contains approximately 25% of the world's population, including the largest country where polio is endemic, India. Progress in this region is critical for the success of global polio eradication. Indonesia, Myanmar, and Thailand appear to have interrupted transmission and joined other regional polio-free countries—Bhutan, Maldives, and Sri Lanka. Although India has made substantial progress in surveillance, poliovirus types 1 and 3 continue to circulate widely, with focal transmission of type 2. Bangladesh and Nepal are progressing less rapidly, and data from DPR Korea are lacking.

The global decline in polio underscores that existing technology and strategies can eradicate the disease in most countries; however, efforts must be tailored to countries where polio is endemic with large annual birth cohorts and low vaccination coverage in crowded urban areas. These conditions prevail in Bangladesh and India and facilitate the persistence of polio between NIDs. Similar obstacles were encountered in China and Brazil (*7,8*); however, polio elimination was achieved in these high-risk areas through extra rounds of NIDs and house-to-house, door-to-door, and boat-to-boat vaccination. High-risk areas were identified by the presence of recent polio cases, poor surveillance, low routine vaccination coverage, heavy migration, and crowded living conditions.

(Continued on page 239)

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending March 20, 1999, with historical data — United States



*No measles cases were reported for the current 4-week period, yielding a ratio for week 11 of zero (0).

†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 — provisional cases of selected notifiable diseases, United States, cumulative, week ending March 20, 1999 (11th Week)

	Cum. 1999		Cum. 1999
Anthrax	-	Plague	-
Brucellosis	10	Poliomyelitis, paralytic	-
Cholera	-	Psittacosis	6
Congenital rubella syndrome	-	Rabies, human	-
Cryptosporidiosis*	207	Rocky Mountain spotted fever (RMSF)	28
Diphtheria	-	Streptococcal disease, invasive Group A	369
Encephalitis: California*	1	Streptococcal toxic-shock syndrome*	9
eastern equine*	-	Syphilis, congenital¶	-
St. Louis*	-	Tetanus	3
western equine*	-	Toxic-shock syndrome	20
Hansen Disease	9	Trichinosis	3
Hantavirus pulmonary syndrome*†	2	Typhoid fever	50
Hemolytic uremic syndrome, post-diarrheal*	5	Yellow fever	-
HIV infection, pediatric*§	18		

-:no reported cases
*Not notifiable in all states.
†Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
§Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update February 21, 1999.
¶Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 20, 1999, and March 21, 1998 (11th Week)

Reporting Area	AIDS		Chlamydia		*Escherichia coli* O157:H7		Gonorrhea		Hepatitis C/NA,NB	
					NETSS†	PHLIS§				
	Cum. 1999*	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1999	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	7,049	9,121	105,731	119,578	226	102	58,984	70,410	468	844
NEW ENGLAND	359	288	3,791	4,475	39	25	1,227	1,272	44	20
Maine	5	4	141	192	2	-	10	8	-	-
N.H.	13	12	200	210	2	1	17	24	-	-
Vt.	4	8	91	66	3	-	12	1	1	2
Mass.	245	71	1,887	1,803	19	14	610	465	43	18
R.I.	20	34	459	526	1	1	115	71	-	-
Conn.	72	159	1,013	1,678	12	9	463	703	-	-
MID. ATLANTIC	1,497	2,491	15,649	14,363	12	1	8,406	8,153	32	71
Upstate N.Y.	74	418	N	N	10	-	727	1,171	28	64
N.Y. City	837	1,171	7,966	7,594	-	1	3,825	3,534	-	-
N.J.	375	420	2,072	2,544	2	-	1,109	1,513	-	-
Pa.	211	482	5,611	4,225	N	-	2,745	1,935	4	7
E.N. CENTRAL	487	668	15,961	18,493	37	21	10,890	14,128	104	102
Ohio	95	154	5,183	5,989	21	7	3,159	3,571	-	5
Ind.	52	79	-	-	5	6	726	1,362	-	2
Ill.	231	249	5,930	4,510	3	3	3,840	4,051	1	15
Mich.	80	144	4,077	5,044	8	2	2,851	3,997	103	80
Wis.	29	42	771	2,950	N	3	314	1,147	-	-
W.N. CENTRAL	161	184	3,610	7,513	46	13	1,272	3,164	6	138
Minn.	26	22	1,157	1,494	16	10	453	507	-	-
Iowa	12	9	396	763	5	2	160	206	-	3
Mo.	84	100	-	2,702	2	1	-	1,527	5	135
N. Dak.	3	3	102	208	2	-	7	18	-	-
S. Dak.	4	5	392	367	-	-	34	60	-	-
Nebr.	11	14	668	653	14	-	291	249	-	-
Kans.	21	31	895	1,326	7	-	327	597	1	-
S. ATLANTIC	1,888	2,362	24,452	23,511	25	10	18,374	18,811	47	26
Del.	31	36	653	512	1	-	376	309	-	-
Md.	254	334	1,677	1,600	1	-	2,063	1,812	17	3
D.C.	67	192	N	N	-	-	588	746	-	-
Va.	103	174	3,047	2,565	6	2	2,061	1,525	6	1
W. Va.	14	19	507	1,086	-	1	92	325	4	2
N.C.	126	107	4,751	4,597	5	3	4,200	4,058	-	7
S.C.	132	161	4,434	3,711	1	1	2,230	2,508	6	-
Ga.	209	233	3,366	5,409	1	-	2,422	4,277	1	8
Fla.	952	1,106	6,017	4,031	10	3	4,342	3,251	13	5
E.S. CENTRAL	303	366	7,518	8,347	15	1	6,560	8,067	24	28
Ky.	37	63	-	1,293	5	-	-	788	1	4
Tenn.	132	124	2,865	2,807	7	-	2,318	2,427	22	21
Ala.	71	118	3,052	2,229	3	-	2,790	2,803	1	3
Miss.	63	61	1,601	2,018	-	1	1,452	2,049	-	-
W.S. CENTRAL	989	1,297	12,157	17,047	5	4	7,348	10,288	24	15
Ark.	34	52	1,148	814	2	2	514	1,088	2	2
La.	69	148	3,527	2,611	1	2	3,053	2,257	12	-
Okla.	20	71	1,743	2,023	1	-	908	1,052	1	-
Tex.	866	1,026	5,739	11,599	1	-	2,873	5,891	9	13
MOUNTAIN	213	310	5,684	6,030	15	5	1,538	1,602	45	112
Mont.	3	10	225	175	-	-	4	8	4	4
Idaho	5	5	371	403	-	1	24	37	4	37
Wyo.	1	1	154	167	1	1	7	10	13	29
Colo.	57	65	1,600	1,573	4	1	408	540	7	8
N. Mex.	9	52	831	869	1	-	153	164	4	17
Ariz.	89	91	1,596	2,052	4	1	638	672	10	-
Utah	27	35	314	425	5	1	34	48	1	8
Nev.	22	51	593	366	-	-	270	123	2	9
PACIFIC	1,152	1,155	16,909	19,799	32	22	3,369	4,925	142	332
Wash.	59	74	2,563	2,309	3	8	455	410	2	2
Oreg.	32	31	1,040	1,219	11	8	156	184	-	2
Calif.	1,040	1,027	12,628	15,393	18	6	2,630	4,179	140	293
Alaska	5	-	404	413	-	-	77	65	-	1
Hawaii	16	23	274	465	-	-	51	87	-	34
Guam	1	-	-	63	N	-	-	5	-	-
P.R.	214	271	U	U	1	U	67	102	-	-
V.I.	3	8	N	N	N	U	U	U	U	U
Amer. Samoa	-	-	U	U	N	U	U	U	U	U
C.N.M.I.	-	-	N	N	N	U	-	8	-	-

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

*Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update February 21, 1999.

†National Electronic Telecommunications System for Surveillance.

§Public Health Laboratory Information System.

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending March 20, 1999, and March 21, 1998 (11th Week)

Reporting Area	Legionellosis		Lyme Disease		Malaria		Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999*	Cum. 1998*	Cum. 1999
UNITED STATES	158	253	665	828	200	233	1,138	1,524	882	1,449	894
NEW ENGLAND	11	17	126	149	3	8	15	17	68	71	151
Maine	2	1	-	1	-	-	-	-	3	1	23
N.H.	1	2	-	4	-	-	-	1	-	2	13
Vt.	3	-	-	1	-	-	1	-	-	1	29
Mass.	2	5	88	32	3	8	10	14	35	38	35
R.I.	1	4	2	14	-	-	1	-	15	8	15
Conn.	2	5	36	97	-	-	3	2	15	21	36
MID. ATLANTIC	39	51	377	530	52	84	47	57	336	331	207
Upstate N.Y.	12	11	116	232	18	20	4	4	32	40	130
N.Y. City	-	12	2	15	12	46	22	9	201	203	U
N.J.	5	2	97	57	14	10	1	19	103	88	47
Pa.	22	26	162	226	8	8	20	25	U	U	30
E.N. CENTRAL	37	99	18	19	13	18	222	224	43	52	1
Ohio	15	27	12	14	2	1	19	43	U	U	-
Ind.	5	22	5	4	4	1	32	31	U	U	-
Ill.	2	15	-	-	-	9	145	95	U	U	-
Mich.	14	15	1	1	5	6	26	38	36	31	1
Wis.	1	20	U	U	2	1	-	17	7	21	-
W.N. CENTRAL	6	14	7	7	6	7	6	41	76	52	85
Minn.	-	-	2	-	-	1	1	1	34	25	19
Iowa	4	1	1	6	2	1	1	-	-	-	20
Mo.	1	7	-	1	3	4	-	30	35	12	-
N. Dak.	-	-	1	-	-	-	-	-	1	1	28
S. Dak.	1	-	-	-	-	-	-	-	3	4	-
Nebr.	-	6	-	-	-	-	1	4	1	-	1
Kans.	-	-	3	-	1	1	3	6	2	10	17
S. ATLANTIC	28	31	85	89	62	50	432	581	140	297	334
Del.	2	4	-	1	-	1	1	6	-	5	-
Md.	4	8	65	80	19	22	99	160	U	U	73
D.C.	-	2	1	3	6	3	10	19	10	23	-
Va.	4	3	-	-	9	5	30	44	17	30	83
W. Va.	N	N	1	-	1	-	1	-	7	16	15
N.C.	4	4	13	-	4	6	120	170	60	153	75
S.C.	4	3	1	-	-	-	49	73	46	70	24
Ga.	-	-	-	2	5	10	56	43	U	U	33
Fla.	10	7	4	3	18	3	66	66	U	U	31
E.S. CENTRAL	8	9	10	11	3	6	188	278	56	124	49
Ky.	2	5	-	1	-	-	-	32	U	U	13
Tenn.	5	2	4	5	2	3	107	141	U	U	19
Ala.	1	1	5	5	1	1	58	59	50	84	17
Miss.	-	1	1	-	-	2	23	46	6	40	-
W.S. CENTRAL	1	2	-	-	5	4	179	190	34	403	16
Ark.	-	-	-	-	-	-	20	23	14	16	-
La.	1	-	-	-	3	3	52	77	U	U	-
Okla.	-	-	-	-	1	-	51	11	20	25	16
Tex.	-	2	-	-	1	1	56	79	-	362	-
MOUNTAIN	11	14	2	1	9	13	16	53	35	52	26
Mont.	-	1	-	-	1	-	-	-	-	2	12
Idaho	-	-	-	-	1	1	-	-	-	1	-
Wyo.	-	-	1	-	-	-	-	-	-	1	7
Colo.	1	4	-	-	3	4	-	3	U	U	1
N. Mex.	1	1	1	-	1	4	-	4	10	9	-
Ariz.	1	1	-	-	3	2	15	41	U	U	6
Utah	4	6	-	-	-	1	-	2	11	11	-
Nev.	4	1	-	1	-	1	1	3	14	28	-
PACIFIC	17	16	40	22	47	43	33	83	94	67	25
Wash.	2	-	-	-	3	-	5	4	54	37	-
Oreg.	-	-	1	-	7	6	-	1	U	U	-
Calif.	15	16	39	22	35	37	26	78	U	U	22
Alaska	-	-	-	-	-	-	1	-	6	8	3
Hawaii	-	-	-	-	2	-	1	-	34	22	-
Guam	-	1	-	-	-	1	-	-	-	28	-
P.R.	-	-	-	-	-	-	52	49	-	6	14
V.I.	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	-	-	-	-	-	36	-	21	-

N: Not notifiable U: Unavailable -: no reported cases

*Cumulative reports of provisional tuberculosis cases for 1998 and 1999 are unavailable ("U") for some areas using the Tuberculosis Information Management System (TIMS).

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 20, 1999, and March 21, 1998 (11th Week)

	H. influenzae, invasive		Hepatitis (Viral), by type				Measles (Rubeola)					
			A		B		Indigenous		Imported[†]		Total	
Reporting Area	Cum. 1999*	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	1999	Cum. 1999	1999	Cum. 1999	Cum. 1999	Cum. 1998
UNITED STATES	241	264	3,030	4,048	1,126	1,727	-	8	-	3	11	9
NEW ENGLAND	18	19	31	83	18	30	-	-	-	1	1	1
Maine	2	2	2	9	-	-	-	-	-	-	-	-
N.H.	2	1	5	5	2	3	-	-	-	1	1	-
Vt.	3	1	1	4	1	-	-	-	-	-	-	-
Mass.	11	15	9	22	13	15	-	-	-	-	-	1
R.I.	-	-	-	5	2	1	-	-	-	-	-	-
Conn.	-	-	14	38	-	11	-	-	-	-	-	-
MID. ATLANTIC	35	38	184	323	141	268	-	-	-	-	-	1
Upstate N.Y.	21	13	57	73	33	65	-	-	-	-	-	-
N.Y. City	2	12	25	128	27	69	-	-	-	-	-	-
N.J.	12	12	33	56	24	47	-	-	-	-	-	1
Pa.	-	1	69	66	57	87	-	-	-	-	-	-
E.N. CENTRAL	23	40	760	697	101	405	-	-	-	-	-	1
Ohio	15	18	172	85	21	19	-	-	-	-	-	-
Ind.	1	5	29	84	4	196	-	-	-	-	-	-
Ill.	6	16	85	187	-	54	-	-	-	-	-	-
Mich.	1	-	472	292	76	114	-	-	-	-	-	1
Wis.	-	1	2	49	-	22	-	-	-	-	-	-
W.N. CENTRAL	17	6	96	366	36	91	-	-	-	-	-	-
Minn.	4	-	6	9	5	5	-	-	-	-	-	-
Iowa	5	1	28	143	12	11	-	-	-	-	-	-
Mo.	4	1	39	171	11	64	-	-	-	-	-	-
N. Dak.	-	-	-	1	-	1	-	-	-	-	-	-
S. Dak.	1	-	2	1	-	1	-	-	-	-	-	-
Nebr.	1	-	13	10	6	3	-	-	-	-	-	-
Kans.	2	4	8	31	2	6	-	-	-	-	-	-
S. ATLANTIC	61	54	358	316	207	171	-	-	-	-	-	5
Del.	-	-	-	-	-	-	-	-	-	-	-	-
Md.	20	14	84	86	38	35	-	-	-	-	-	1
D.C.	2	-	15	12	6	3	-	-	-	-	-	-
Va.	6	6	26	50	14	17	-	-	-	-	-	2
W. Va.	1	2	2	-	-	1	-	-	-	-	-	-
N.C.	9	8	36	20	44	48	-	-	-	-	-	-
S.C.	2	1	4	8	24	-	-	-	-	-	-	-
Ga.	12	17	74	94	27	45	-	-	-	-	-	1
Fla.	9	6	117	46	54	22	-	-	-	-	-	1
E.S. CENTRAL	23	19	92	110	73	109	-	-	-	-	-	-
Ky.	2	5	6	3	7	6	U	-	U	-	-	-
Tenn.	14	9	60	60	46	82	-	-	-	-	-	-
Ala.	6	5	24	28	20	21	-	-	-	-	-	-
Miss.	1	-	2	19	-	-	-	-	-	-	-	-
W.S. CENTRAL	11	14	226	271	76	116	-	-	-	2	2	-
Ark.	-	-	9	9	9	22	-	-	-	-	-	-
La.	3	6	9	4	8	6	-	-	-	-	-	-
Okla.	6	6	90	91	22	7	-	-	-	-	-	-
Tex.	2	2	118	167	37	81	-	-	-	2	2	-
MOUNTAIN	33	46	315	709	108	169	-	1	-	-	1	-
Mont.	1	-	4	7	1	2	-	-	-	-	-	-
Idaho	1	-	9	43	4	5	-	-	-	-	-	-
Wyo.	1	-	1	10	-	2	-	-	-	-	-	-
Colo.	1	8	68	56	26	21	-	1	-	-	1	-
N. Mex.	9	-	7	41	40	66	-	-	-	-	-	-
Ariz.	16	25	175	457	16	39	-	-	-	-	-	-
Utah	4	3	14	41	8	16	-	-	-	-	-	-
Nev.	-	10	37	54	13	18	-	-	-	-	-	-
PACIFIC	20	28	968	1,173	366	368	-	7	-	-	7	1
Wash.	-	1	62	122	5	28	-	-	-	-	-	-
Oreg.	8	14	56	78	13	29	-	6	-	-	6	-
Calif.	10	10	847	952	340	304	-	1	-	-	1	1
Alaska	2	1	2	1	5	2	-	-	-	-	-	-
Hawaii	-	2	1	20	3	5	-	-	-	-	-	-
Guam	-	-	-	-	-	-	U	-	U	-	-	-
P.R.	-	1	15	10	21	118	-	-	-	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	-	-	-	20	U	-	U	-	-	-

N: Not notifiable U: Unavailable -: no reported cases

*Of 49 cases among children aged <5 years, serotype was reported for 19 and of those, 3 were type b.

[†]For imported measles, cases include only those resulting from importation from other countries.

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 20, 1999, and March 21, 1998 (11th Week)

	Meningococcal Disease		Mumps			Pertussis			Rubella		
Reporting Area	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998
UNITED STATES	539	751	7	75	96	143	820	892	1	7	87
NEW ENGLAND	28	43	-	1	-	1	94	182	-	-	13
Maine	3	3	-	-	-	-	-	4	-	-	-
N.H.	-	1	-	1	-	1	18	16	-	-	-
Vt.	2	1	-	-	-	-	10	24	-	-	-
Mass.	20	18	-	-	-	-	64	134	-	-	1
R.I.	2	3	-	-	-	-	2	-	-	-	-
Conn.	1	17	-	-	-	-	-	4	-	-	12
MID. ATLANTIC	55	77	1	10	8	40	126	101	-	-	57
Upstate N.Y.	9	20	-	2	2	38	97	61	-	-	52
N.Y. City	17	10	-	-	4	-	-	6	-	-	1
N.J.	14	19	-	-	-	-	-	6	-	-	4
Pa.	15	28	1	8	2	2	29	28	-	-	-
E.N. CENTRAL	80	124	1	8	13	13	93	99	-	-	-
Ohio	38	45	-	3	7	13	79	34	-	-	-
Ind.	7	23	-	-	-	-	2	14	-	-	-
Ill.	26	28	-	-	-	-	-	5	-	-	-
Mich.	9	13	1	5	6	-	12	12	-	-	-
Wis.	-	15	-	-	-	-	-	34	-	-	-
W.N. CENTRAL	58	57	-	2	8	2	12	73	-	-	-
Minn.	17	-	-	-	4	-	-	39	-	-	-
Iowa	15	10	-	2	2	1	5	15	-	-	-
Mo.	15	28	-	-	1	1	6	10	-	-	-
N. Dak.	-	-	-	-	1	-	-	-	-	-	-
S. Dak.	5	4	-	-	-	-	1	-	-	-	-
Nebr.	2	1	-	-	-	-	-	3	-	-	-
Kans.	4	14	-	-	-	-	-	6	-	-	-
S. ATLANTIC	97	110	3	13	12	6	64	62	1	4	1
Del.	1	1	-	-	-	-	-	-	-	-	-
Md.	15	14	-	2	-	-	20	15	1	1	-
D.C.	1	-	-	1	-	-	-	-	-	-	-
Va.	10	11	-	2	2	-	7	-	-	-	-
W. Va.	1	3	-	-	-	-	-	-	-	-	-
N.C.	13	19	-	1	5	2	21	30	-	3	1
S.C.	14	14	-	2	3	1	6	5	-	-	-
Ga.	14	33	-	-	-	2	4	-	-	-	-
Fla.	28	15	3	5	2	1	6	12	-	-	-
E.S. CENTRAL	42	60	-	1	1	-	14	14	-	-	-
Ky.	10	11	U	-	-	U	1	1	U	-	-
Tenn.	15	21	-	-	-	-	9	4	-	-	-
Ala.	12	23	-	1	1	-	4	9	-	-	-
Miss.	5	5	-	-	-	-	-	-	-	-	-
W.S. CENTRAL	27	44	-	9	18	4	26	36	-	3	10
Ark.	10	8	-	-	-	-	3	4	-	-	-
La.	6	12	-	-	-	-	-	-	-	-	-
Okla.	10	17	-	1	-	-	2	6	-	-	-
Tex.	1	7	-	8	18	4	21	26	-	3	10
MOUNTAIN	50	52	2	7	5	8	142	170	-	-	5
Mont.	-	2	-	-	-	-	1	1	-	-	-
Idaho	5	3	-	-	-	3	75	66	-	-	-
Wyo.	2	3	-	-	1	-	1	-	-	-	-
Colo.	15	13	-	2	1	3	19	36	-	-	-
N. Mex.	7	7	N	N	N	1	8	46	-	-	1
Ariz.	16	18	-	-	1	1	19	14	-	-	1
Utah	3	5	2	4	-	-	17	3	-	-	2
Nev.	2	1	-	1	2	-	2	4	-	-	1
PACIFIC	102	184	-	24	31	69	249	155	-	-	1
Wash.	14	21	-	-	4	67	130	59	-	-	-
Oreg.	18	34	N	N	N	-	3	9	-	-	-
Calif.	63	125	-	21	18	2	115	85	-	-	1
Alaska	3	1	-	1	2	-	1	-	-	-	-
Hawaii	4	3	-	2	7	-	-	2	-	-	-
Guam	-	-	U	-	1	U	-	-	U	-	-
P.R.	2	1	-	-	1	-	-	2	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	U	-	2	U	-	1	U	-	-

N: Not notifiable U: Unavailable -: no reported cases

TABLE IV. Deaths in 122 U.S. cities,* week ending March 20, 1999 (11th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	>65	45-64	25-44	1-24	<1	
NEW ENGLAND	678	504	115	38	10	11	80
Boston, Mass.	193	137	41	9	3	3	29
Bridgeport, Conn.	30	23	4	2	1	-	4
Cambridge, Mass.	17	16	-	1	-	-	2
Fall River, Mass.	33	29	3	1	-	-	3
Hartford, Conn.	62	43	10	3	2	4	6
Lowell, Mass.	33	24	5	4	-	-	4
Lynn, Mass.	12	10	2	-	-	-	1
New Bedford, Mass.	29	26	3	-	-	-	1
New Haven, Conn.	46	34	5	6	1	-	6
Providence, R.I.	72	54	13	3	-	2	-
Somerville, Mass.	6	4	2	-	-	-	-
Springfield, Mass.	44	29	11	2	2	-	6
Waterbury, Conn.	33	24	5	4	-	-	3
Worcester, Mass.	68	51	11	3	1	2	15
MID. ATLANTIC	2,496	1,853	444	127	28	43	145
Albany, N.Y.	64	43	10	6	1	4	4
Allentown, Pa.	23	19	3	1	-	-	-
Buffalo, N.Y.	U	U	U	U	U	U	U
Camden, N.J.	34	23	7	3	-	1	3
Elizabeth, N.J.	17	12	5	-	-	-	-
Erie, Pa.	49	39	7	1	1	1	6
Jersey City, N.J.	55	40	9	4	-	2	-
New York City, N.Y.	1,225	910	224	63	12	16	30
Newark, N.J.	64	30	17	10	5	2	3
Paterson, N.J.	22	14	6	1	-	1	-
Philadelphia, Pa.	408	302	78	23	3	2	32
Pittsburgh, Pa.§	90	59	16	6	3	5	8
Reading, Pa.	39	32	6	-	-	1	5
Rochester, N.Y.	180	148	22	7	2	1	30
Schenectady, N.Y.	32	27	5	-	-	-	2
Scranton, Pa.	36	31	4	1	-	-	2
Syracuse, N.Y.	97	76	14	1	1	5	12
Trenton, N.J.	40	30	8	-	-	2	6
Utica, N.Y.	21	18	3	-	-	-	2
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,500	1,733	469	176	69	52	257
Akron, Ohio	62	39	13	3	3	4	1
Canton, Ohio	58	53	4	1	-	-	9
Chicago, Ill.	451	291	97	38	17	7	41
Cincinnati, Ohio	146	108	33	2	2	1	29
Cleveland, Ohio	163	106	38	7	7	5	6
Columbus, Ohio	292	200	53	26	7	6	26
Dayton, Ohio	173	133	29	7	3	1	21
Detroit, Mich.	226	130	55	28	5	8	6
Evansville, Ind.	49	41	6	-	2	-	4
Fort Wayne, Ind.	86	63	18	2	1	2	14
Gary, Ind.	34	19	11	3	1	-	2
Grand Rapids, Mich.	73	59	9	1	2	2	10
Indianapolis, Ind.	186	130	23	15	11	7	20
Lansing, Mich.	53	32	13	6	-	2	5
Milwaukee, Wis.	145	81	28	27	6	3	18
Peoria, Ill.	73	59	13	1	-	-	9
Rockford, Ill.	63	48	10	1	2	2	11
South Bend, Ind.	61	48	8	4	-	1	8
Toledo, Ohio	106	93	8	4	-	1	17
Youngstown, Ohio	U	U	U	U	U	U	U
W.N. CENTRAL	760	554	125	54	16	11	65
Des Moines, Iowa	U	U	U	U	U	U	U
Duluth, Minn.	36	18	6	8	4	-	2
Kansas City, Kans.	U	U	U	U	U	U	U
Kansas City, Mo.	140	94	30	12	3	1	13
Lincoln, Nebr.	43	37	3	1	1	1	6
Minneapolis, Minn.	213	177	17	10	4	5	27
Omaha, Nebr.	102	73	25	3	1	-	12
St. Louis, Mo.	128	80	29	16	1	2	-
St. Paul, Minn.	98	75	15	4	2	2	5
Wichita, Kans.	U	U	U	U	U	U	U
S. ATLANTIC	1,268	815	237	138	46	30	85
Atlanta, Ga.	U	U	U	U	U	U	U
Baltimore, Md.	169	106	28	27	3	5	20
Charlotte, N.C.	128	91	24	8	3	2	19
Jacksonville, Fla.	194	133	43	9	1	7	2
Miami, Fla.	134	42	19	44	26	3	-
Norfolk, Va.	54	36	7	6	3	2	3
Richmond, Va.	68	40	14	9	4	1	7
Savannah, Ga.	55	41	7	4	1	2	4
St. Petersburg, Fla.	101	77	14	6	2	2	11
Tampa, Fla.	246	171	52	15	1	6	19
Washington, D.C.	100	61	28	9	2	-	-
Wilmington, Del.	19	17	1	1	-	-	-
E.S. CENTRAL	838	558	177	55	21	26	67
Birmingham, Ala.	183	123	37	10	6	6	14
Chattanooga, Tenn.	90	66	20	3	1	-	9
Knoxville, Tenn.	97	60	23	10	3	1	1
Lexington, Ky.	67	46	16	2	1	2	12
Memphis, Tenn.	138	92	28	6	5	7	14
Mobile, Ala.	52	35	10	5	-	2	1
Montgomery, Ala.	45	30	11	3	-	1	9
Nashville, Tenn.	166	106	32	16	5	7	7
W.S. CENTRAL	1,331	912	259	90	43	27	116
Austin, Tex.	123	82	23	14	4	-	17
Baton Rouge, La.	50	37	9	2	2	-	3
Corpus Christi, Tex.	61	43	10	2	4	2	3
Dallas, Tex.	208	130	49	18	6	5	4
El Paso, Tex.	U	U	U	U	U	U	U
Ft. Worth, Tex.	147	100	29	10	7	1	18
Houston, Tex.	U	U	U	U	U	U	U
Little Rock, Ark.	79	53	14	3	4	5	7
New Orleans, La.	167	101	34	20	6	6	19
San Antonio, Tex.	282	209	46	14	8	5	24
Shreveport, La.	62	42	17	3	-	-	8
Tulsa, Okla.	152	115	28	4	2	3	13
MOUNTAIN	924	663	164	59	20	16	98
Albuquerque, N.M.	107	79	15	10	1	2	3
Boise, Idaho	38	35	2	1	-	-	3
Colo. Springs, Colo.	48	41	5	1	1	-	5
Denver, Colo.	90	52	25	5	5	3	15
Las Vegas, Nev.	208	138	48	17	3	2	19
Ogden, Utah	28	21	5	1	1	-	2
Phoenix, Ariz.	65	45	12	5	1	2	4
Pueblo, Colo.	31	28	2	1	-	-	13
Salt Lake City, Utah	122	90	18	4	5	5	13
Tucson, Ariz.	187	134	32	14	3	2	21
PACIFIC	2,087	1,511	364	133	45	33	197
Berkeley, Calif.	18	12	6	-	-	-	-
Fresno, Calif.	165	121	31	8	4	1	26
Glendale, Calif.	33	23	9	1	-	-	4
Honolulu, Hawaii	80	61	16	-	2	1	4
Long Beach, Calif.	74	52	16	3	3	-	13
Los Angeles, Calif.	606	423	114	49	11	9	35
Pasadena, Calif.	42	28	7	4	3	-	4
Portland, Oreg.	133	102	19	5	3	4	10
Sacramento, Calif.	184	138	30	10	4	2	27
San Diego, Calif.	210	141	37	19	4	8	23
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	211	162	24	15	3	7	18
Santa Cruz, Calif.	25	17	7	1	-	-	5
Seattle, Wash.	153	105	31	13	3	1	4
Spokane, Wash.	52	49	2	-	1	-	14
Tacoma, Wash.	101	77	15	5	4	-	10
TOTAL	12,882¶	9,103	2,354	870	298	249	1,110

U: Unavailable -: no reported cases

*Mortality data in this table are voluntarily reported from 122 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 this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶Total includes unknown ages.

Poliomyelitis — Continued

Although eradication efforts have been extensive, India accounts for half the world's reported polio cases. Four NIDs have reached ≥90% of the population aged <5 years. Within the last year, AFP surveillance has reached the target rate, resulting in a more accurate definition of the pattern and intensity of polio transmission. Evidence suggests that many endemic reservoirs of wild poliovirus have been eliminated.

A missed population in India is approximately 13 million children (up to 10% a year) who reside in low coverage, densely populated areas. Better supervised NIDs and house-to-house mopping-up[§] vaccination campaigns in areas with persistent transmission are needed to eliminate polio in India by the end of 2000. The Indian government tentatively is planning to conduct two rounds of large-scale mopping-up campaigns during October–November 1999, before the next NIDs during December 1999–January 2000. It is critical that Bangladesh and Nepal synchronize their campaigns with India.

Fewer than 650 days remain to reach the target for global polio eradication. Progress in AFP surveillance and NIDs in the SEAR has led to the apparent elimination of poliovirus in several countries and to substantially reduced circulation in others.[¶] To eliminate remaining poliovirus reservoirs and meet the 2000 target, accelerated improvement in AFP surveillance and targeted, intensified supplemental vaccination activities will be needed, especially in Bangladesh, India, Nepal, and DPR Korea.

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§Focal mass campaigns in high-risk areas over a short period (days to weeks) in which two doses of OPV are administered during house-to-house and boat-to-boat visits to all children aged <5 years, regardless of vaccination history, with an interval of 4–6 weeks between doses.

¶SEAR polio eradication efforts are supported by its member countries; WHO, United Nations Children's Fund (UNICEF), Rotary International; and donor governments, such as Canada, Denmark, Germany, Japan, Norway, United Kingdom, and the United States (U.S. Agency for International Development [USAID] and CDC).

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