



- 1053 Suicide Prevention Among Active Duty Air Force Personnel — United States, 1990–1999
- 1057 Progress Toward Poliomyelitis Eradication — Eastern Mediterranean Region, 1998–October 1999

# Suicide Prevention Among Active Duty Air Force Personnel — United States, 1990–1999

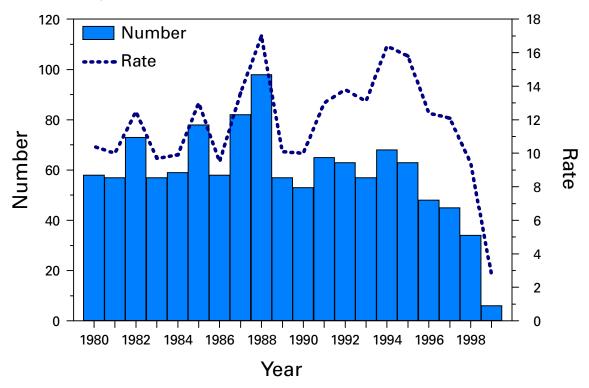
During 1990–1994, suicide accounted for 23% of all deaths among active duty U.S. Air Force (USAF) personnel and was the second leading cause of death (after unintentional injuries) (Table 1). During those years, the annual suicide rate among active duty USAF personnel increased significantly (p<0.01) from 10.0 to 16.4 suicides per 100,000 members (Figure 1). In 1995, senior USAF leaders initiated prevention programs in several commands because of the increasing suicide rate. In May 1996, an in-depth study by a team of medical and nonmedical civilian and military experts was initiated to produce a comprehensive, communitywide prevention strategy that viewed suicide not only as a medical but a USAF problem, thus addressing overall social, behavior, and health issues (1). The plan was implemented across the entire USAF during 1996–1997. This report describes protective and prevention strategies and summarizes the study findings, which indicate that a substantial decline in the suicide rate was associated with the communitywide program.

The team's suicide prevention strategy encompassed nearly all the USAF community (e.g., investigative agencies, military justice, and prevention and treatment services) and focused on reducing suicide by emphasizing early interventions, and strengthening protective factors (e.g., a sense of belonging and caring, effective coping skills, and policies that promote help-seeking behavior). These goals correspond to recommendations made by the United Nations (UN) and World Health Organization (WHO) to governments and local communities in developing suicide prevention strategies (2). The initiatives were divided into three categories corresponding to

TABLE 1. Causes of death among active duty U.S. Air Force personnel — United States, 1990–1994

Cause	No.	% of all deaths
Unintentional injury	636	48%
Suicide	300	23%
Disease	280	21%
Homicide	61	5%
Other	37	3%
Total	1314	100%

FIGURE 1. Annual number and rate\* of suicides among U.S. Air Force personnel — United States,  $1980-1999^{\dagger}$ 



<sup>\*</sup>Per 100,000 U.S. Air Force personnel.

areas identified by other prevention programs: adapting CDC recommendations for youth suicide prevention (3) to the USAF adult population, restructuring prevention services offered on USAF installations (4), and establishing a central surveillance database for fatal and nonfatal self-injuries (5).

#### Adapting CDC Recommendations

The team established USAF requirements for annual suicide prevention and awareness training, which was provided to approximately 80% of USAF members. Supervisors and leaders within each military unit, medical providers, attorneys, and chaplains received concentrated training as "gatekeepers" whose role was to channel persons at risk to appropriate agencies. In 1996, the USAF began to administer a comprehensive health questionnaire, including items about mental health status, when USAF members enrolled in the military health-care plan; an abbreviated version was subsequently administered annually. Questionnaire data were used to determine when referral to a health-care provider was indicated.

The USAF Chiefs of Staff sent servicewide electronic messages, recognizing the courage and sound judgment of persons who confronted difficult issues and sought professional help (e.g., marital, family, legal, financial, mental health, and spiritual counseling). These messages also stated that military leaders must ensure that mem-

<sup>&</sup>lt;sup>†</sup>1999 rate is an estimated projection as of August 31, 1999. Significant negative linear trend in suicide rate from 1994 to 1998 (p<0.002).

bers facing substantial stress receive the care and support of their military unit (i.e., local community), even when the stress stemmed from violating community norms (i.e., Uniform Code of Military Justice [UCMJ]). The team also established policies that required any USAF agency investigating a member to coordinate with unit leaders to ensure that the leaders carried out their gatekeeping role.

### **Restructuring of Prevention Services**

Prevention services on all USAF installations were restructured by establishing a limited psychotherapist-patient privilege to protect members charged under the UCMJ. Mental health providers were mandated to initiate community-based primary prevention, and the USAF integrated the services of the six agencies involved in prevention services (mental health, family support centers, child and youth development, health and wellness centers, chaplains, and family advocacy). The six agencies in each geographic community were required to conduct an assessment of the risk for suicide and to develop a coordinated prevention plan with measurable goals.

#### Surveillance

Gathering suicide data from the USAF population is facilitated by standardized data systems that track each member. Each active duty member's death is investigated by the USAF Office of Special Investigations, a forensic agency autonomous from the local command authority. Since 1997, USAF suicide data (completions, attempts, and gestures) have been collected in a database that includes demographics, details of the events, use of prevention services before the event, and associated psychological, social, behavior, and economic factors.

From 1994 to 1998, the suicide rate among USAF members decreased significantly, from 16.4 suicides per 100,000 members to 9.4 (p<0.002) (Figure 1). On the basis of the first eight months of 1999, the 1999 estimated rate is 2.2 suicides per 100,000 members—approximately 80% lower than the lowest annual rate since 1980 (Figure 1).\*

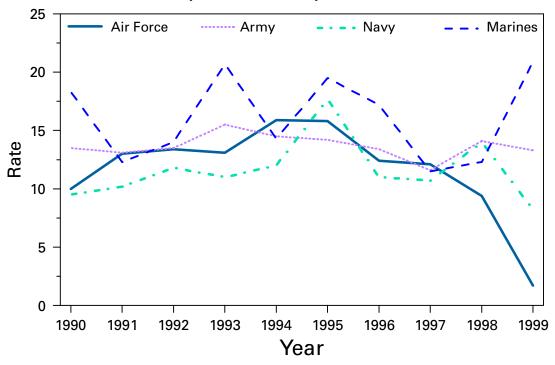
Reported by: DA Litts, K Moe, CH Roadman, R Janke, J Miller, Suicide Integrated Product Team, United States Air Force, Dept of Defense. Div of Violence Prevention, National Center for Injury Prevention and Control, CDC.

**Editorial Note**: During 1994–1995, suicide prevention became a USAF priority. Initially, the focus of prevention activities occurred within several major commands; however, this approach was succeeded in 1996 by a servicewide program, whose goals correspond to recommendations made by the UN and WHO to governments and local communities in developing suicide prevention strategies (2). These efforts were temporally associated with a substantial decrease in the suicide rates among active USAF personnel. Suicide rates in the other military services do not demonstrate the sustained decline over the same period (U.S. Army, U.S. Navy, and U.S. Marines, unpublished data, 1999) (Figure 2).

The USAF's approach to suicide prevention emphasized the role of the entire community, not only health care, in reducing and preventing factors thought to contribute to suicide. It also included components that promoted protective factors such as social networks. Readiness to address the suicide problem was established quickly because

<sup>\*</sup>The 1999 rate was estimated by dividing the number of deaths by the number of months of data to get a monthly average and then multiplied by 12 to get an approximate numerator for the annual rate.

FIGURE 2. Suicide rates,\* by branch of military service — United States, 1990–1999†



<sup>\*</sup>Per 100,000 members of each service.

the leaders involved were easily identified and had substantial influence over the community. A program of education and awareness training for all personnel, combined with integrated prevention services in every community, set out to modify the culture of the USAF community. Initiatives are ongoing, established by official policy requiring annual reporting of performance objectives.

Evaluation of the program's effectiveness and its generalizability to other groups is subject to at least two limitations. First, although the decline in the suicide rate among USAF personnel corresponds temporally with the interventions, a causal relation between the decline and the program has not been established conclusively nor have components that might have been responsible for the decline been identified. Second, differences exist in the characteristics of active USAF personnel and the U.S. civilian population. All members of the USAF community have completed secondary school, are employed and housed, and have comprehensive health-care benefits, including unlimited mental health care. Since 1974, members have been screened for mental illness before entry. Use of illicit drugs, a risk factor for suicide, is approximately 90% less frequent than in the civilian population after adjusting for age and sex (6). All members have a commander or a first sergeant whose job is to be interested in each member's health and well being.

This study highlights that suicide is a preventable health problem and demonstrates the importance of using multiple agencies to address the issue. It also indicates that a communitywide, multiple-strategy program can be planned and implemented and can contribute to reducing self-directed violence. The USAF has

<sup>&</sup>lt;sup>†</sup> 1999 data are annualized rates based on suicides through June 1999.

assigned a team to monitor the ongoing intervention and surveillance activities and to recommend modifications as needed. The USAF suicide prevention strategy should be tested in other occupation-related communities, such as law enforcement or investigative agencies, to determine whether the programs can be effective in other populations.

#### References

- 1. Silverman MM, Felner RD. Suicide prevention programs: issues of design, implementation, feasibility, and developmental appropriateness. Suicide and Life-Threatening Behavior 1995;25:92–104.
- 2. United Nations. Prevention of suicide: guidelines for the formation and implementation of national strategies. New York: United Nations, 1996. United Nations publication ST/ESA/245.
- 3. CDC. Youth suicide prevention programs: a resource guide. Atlanta, Georgia: US Department of Health and Human Services, Public Health Service, CDC, 1992.
- 4. Institute of Medicine. The future of public health. Washington, DC: National Academy Press 1988:35–55.
- 5. Thacker SB, Berkelman RL. Public health surveillance in the United States. Epidemiologic Reviews 1988;10:164–82.
- 6. US Department of Defense. The 1998 Department of Defense survey of health related behaviors among military personnel. Washington, DC: US Department of Defense, March 1999.

# Progress Toward Poliomyelitis Eradication — Eastern Mediterranean Region, 1998–October 1999

In 1988, the Regional Committee for the Eastern Mediterranean Region\* (EMR) of the World Health Organization (WHO) adopted a resolution to eliminate poliomyelitis from the region by 2000. This report summarizes progress toward this goal in EMR countries through October 1999; all EMR countries, including war-torn and other underdeveloped areas of the region, are conducting essential polio eradication strategies, and eradication activities to rapidly stop poliovirus transmission are under way in countries where polio is endemic.

### **Routine Vaccination Coverage**

In 1998, regional routine coverage with at least three doses of oral poliovirus vaccine (OPV3) by age 1 year was 82% (range: 24%–100%). All member countries reported routine coverage data, and OPV3 coverage was ≥90% in 16 countries. However, reported OPV3 coverage was 86% in Iraq, 79% in Pakistan, 72% in Sudan, 68% in Yemen, 62% in Djibouti, 35% in Afghanistan, and 24% in Somalia. Countries reporting <90% coverage represent more than half of the regional population. Compared with the reported coverage rates, most of which are determined by using target population estimates, population-based surveys in Afghanistan, Iraq, and Pakistan have found lower coverage rates.

<sup>\*</sup>Member countries are Djibouti, Egypt, Libya, Morocco, Somalia, Sudan, and Tunisia in northern and eastern Africa; Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates, and Yemen in the Arab Gulf states; Iraq, Jordan, Lebanon, Syria, and the Palestinian National Authority in the Middle East; Afghanistan, Iran, and Pakistan in Asia; and Cyprus.

## **Supplementary Vaccination Activities**

During 1998 and 1999, National Immunization Days (NIDs)<sup>†</sup> were conducted in 19 countries. In 1998, Somalia and Sudan conducted the first countrywide campaigns that covered the war-affected southern parts of each country (1). Kuwait did not conduct NIDs in 1998 but will conduct one round in November 1999. Iran and Tunisia conducted targeted Subnational Immunization Days (SNIDs)§ in provinces at risk for poliovirus importation and/or with suboptimal vaccination coverage. NIDs have not been necessary in Cyprus because routine coverage is high. Poliovirus circulation has persisted or is suspected in seven EMR countries (Afghanistan, Egypt, Iraq, Pakistan, Somalia, Sudan, and Yemen) because of low routine OPV3 coverage and/or pockets of unvaccinated children not reached during NIDs. Accelerated vaccination activities, which include improving the quality of all campaigns, adding rounds of NIDs or SNIDs, and intensifying house-to-house vaccination in high-risk areas, have been initiated in these countries (Figure 1). For example, in early 1999, >11 million children were vaccinated during two rounds of a house-to-house vaccination campaign in three provinces of Pakistan, and Afghanistan and Iraq are conducting two pairs of NIDs in 1999.

Within EMR, campaigns are coordinated among groups of contiguous countries, including Afghanistan, Iran, and Pakistan; Iran, Iraq, and Syria (and Turkey) (2); between member states of the Gulf Cooperation Council<sup>¶</sup>; and between Maghrebian Union countries, including Libya, Morocco, and Tunisia. NIDs in several countries have been coordinated with countries in the European region ("Operation MECACAR") and the African region in the Horn of Africa. NIDs in Pakistan have been synchronized with campaigns in southern Asia (3,4).

# Surveillance

By mid-1998, all member countries (except Djibouti) had established acute flaccid paralysis (AFP) surveillance. Fifteen countries (Bahrain, Cyprus, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Palestine, Qatar, Saudi Arabia, Syria, and Tunisia) had achieved or exceeded the WHO-established minimum AFP reporting rate indicative of a sensitive surveillance system (one or more nonpolio AFP case per 100,000 children aged <15 years) during 1998 (Table 1). Among the eight remaining countries, the annualized nonpolio AFP reporting rates during 1999 have exceeded one case per 100,000 in Afghanistan, Pakistan, United Arab Emirates, and Yemen. The regional average reporting rates for nonpolio AFP in 1998 and 1999 were 0.88 and 1.21, respectively. During 1998 and 1999, two adequate\*\* stool samples were collected from 64% and 68%, respectively, of the persons with reported AFP in EMR. During 1998 and 1999, seven countries (Cyprus, Kuwait, Oman, Palestine, Saudi Arabia,

<sup>&</sup>lt;sup>†</sup>Mass campaigns over a short period (days to weeks) in which two doses of OPV are administered to all children in the target age group (usually aged <5 years) regardless of previous vaccination history, with an interval of 4–6 weeks between doses.

<sup>§</sup>Focal mass campaigns in high-risk areas over a short period (days to weeks) in which two doses of OPV are administered to all children in the target age group, regardless of previous vaccination history, with an interval of 4–6 weeks between doses.

Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates.

<sup>\*\*</sup>Two stool specimens collected at least 24 hours apart within 14 days of onset of paralysis.

FIGURE 1. Schedule of National Immunization Days (NIDs)\* and "mopping-up" vaccination campaigns<sup>†</sup> planned, by country — seven priority countries, Eastern Mediterranean Region, June 1999–May 2002

					1	1999	<b>-20</b> 0	0									2	000-	-200	1									2	001-	2001–2002					
Country	J	J	Α	s	О	N	D	J	F	М	Α	М	J	J	Α	s	0	N	D	J	F	М	Α	М	J	J	Α	s	0	N	D	J	F	М	Α	М
Afghanistan																																				
Egypt																																				
Iraq																																				
Pakistan																																				
Somalia																																				
Sudan																																				
Yemen																																				

\* 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 age group (usually aged <5 years) regardless of previous vaccination history, with an interval of 4–6 weeks between doses.

† Includes house-to-house vaccination in border areas and for other high-risk population groups.

TABLE 1. Number of reported cases of acute flaccid paralysis (AFP) and confirmed poliomyelitis\* and key surveillance indicators, by country — Eastern Mediterranean Region, 1998–October 1999

		19	98			19	99	
Country	No. AFP cases	No. confirmed cases	Nonpolio AFP rate <sup>†</sup>	% persons with AFP with two stool specimens§	No. AFP cases	No. confirmed cases	Nonpolio AFP rate¶	% persons with AFP with two stool specimens
Afghanistan	121	59	0.66	50	169	75	1.29	55
Bahrain	4	0	2.00	50	3	0	2.37	100
Cyprus	5	0	3.10	100	1	0	0.80	100
Djibouti	0	0	0.00		0	0	0.00	
Egypt	295	35	1.21	82	229	7	1.32	76
Iran	348	4	1.43	76	196	3	1.08	72
Iraq	155	37	1.19	72	160	38	1.59	78
Jordan	33	0	1.80	76	21	0	1.45	81
Kuwait	6	0	1.15	83	4	0	1.00	100
Lebanon	11	0	1.26	0	12	0	1.86	8
Libya	18	0	1.00	50	19	0	1.38	63
Morocco	81	0	0.85	33	54	0	0.74	46
Oman	8	0	1.00	88	16	0	2.45	88
Pakistan	751	339	0.64	60	813	270	1.19	72
Palestine	14	0	1.21	100	6	0	0.64	83
Qatar	2	0	2.18	0	2	0	1.80	
Saudi Arabia	84	1	1.08	88	66	0	1.11	79
Somalia	32	12	0.69	28	32	11	0.93	31
Sudan	88	50	0.31	33	80	31	0.47	34
Syria	85	0	1.32	98	63	0	1.16	84
Tunisia	37	0	1.19	81	32	0	1.33	94
United Arab								
Emirates	4	0	0.60	0	5	0	1.01	40
Yemen	27	16	0.13	33	90	11	1.19	58
Total	2209	553	0.88	64	2073	446	1.21	68

<sup>\*</sup>A confirmed case of polio is defined as AFP and at least one of the following: 1) laboratory-confirmed wild poliovirus infection, 2) inadequate stool specimens and residual paralysis at 60 days, 3) death, or 4) no follow-up investigation at 60 days.

Syria, and Tunisia) achieved the WHO-recommended target of two adequate stool specimens collected from at least 80% of persons with AFP. An additional five countries (Bahrain, Egypt, Iran, Iraq, and Jordan) collected stool specimens from 71% to 79% of persons with AFP reported during the same period, and six countries (Lebanon, Morocco, Qatar, Somalia, Sudan, and United Arab Emirates) collected adequate specimens from <50% of persons with AFP. Despite high national AFP surveillance performance indicators during 1997 and 1998 in Egypt and Iraq, circulation of wild poliovirus type 3 in Egypt and type 1 in Iraq continued undetected for >2 years.

<sup>&</sup>lt;sup>†</sup>Number of AFP cases per 100,000 population aged <15 years. Minimum expected rate is one case of nonpolio AFP per 100,000 per year.

<sup>§</sup>Two stool specimens collected at least 24 hours apart within 14 days of paralysis onset from ≥80% of AFP cases.

<sup>¶</sup>Annualized nonpolio AFP rate.

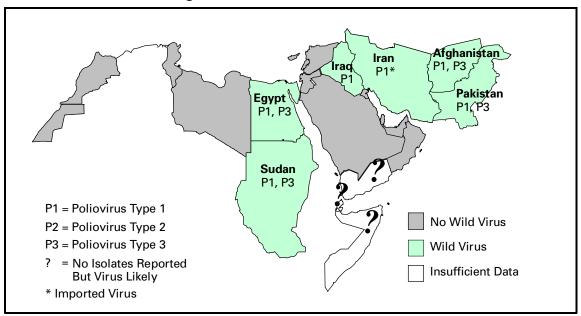
### **EMR Laboratory Network**

The EMR laboratory network comprises 12 laboratories (eight national and four regional reference laboratories). During 1998, all network laboratories except those in Iraq and Sudan were accredited by WHO. On the basis of their improved performance, the laboratories in Iraq and Sudan received provisional accreditation in 1999. As of October 1999, 3445 stool specimens from 1800 (99%) of 1824 persons with AFP reported from 22 EMR countries underwent laboratory investigation in a WHO network laboratory. Laboratory results were reported on time (within 28 days of receipt of specimen) for 80% of stool specimens. The regional average nonpolio enterovirus isolation rate (an indicator of the adequacy of laboratory technique and specimen handling) was 9%; 93% of the specimens were received in the laboratory in good condition. Genetic sequence analyses are performed routinely on all wild poliovirus isolates in the region. The information has provided evidence of progress toward eradication through identifying virus reservoirs, establishing virus transmission links and cross-border importations, and detecting laboratory contamination (5).

#### Incidence of Polio

From 1988 through October 1999, the number of confirmed polio cases reported in the EMR decreased 81%, from 2342 to 446. Of 23 EMR countries, 15 reported zero cases during 1999. Since 1996, five countries (Afghanistan, Egypt, Iraq, Pakistan, and Sudan) have reported cases with indigenous strains of wild poliovirus. The last virologically confirmed case of polio in Egypt had onset in March 1999. Wild poliovirus has not been isolated in Somalia through a functioning surveillance system in the north or from AFP cases reported in Yemen during 1998 and 1999. During 1998 and 1999, Pakistan continued to report the largest number of cases and contributed nearly 60% of the total number of cases in the region. Wild poliovirus type 2 has not been isolated in EMR since 1997 (Figure 2).

FIGURE 2. Isolation of poliovirus serotypes from acute flaccid paralysis cases — Eastern Mediterranean Region, 1999



Countries with high-quality AFP surveillance that have been polio-free for several years have begun to prepare documentation for review by the Regional Commission for Certification of Polio Eradication. In late 1999, the commission will review documentation from five EMR countries and from an additional 10 countries before the end of 2000.

Reported by: Regional Office for the Eastern Mediterranean Region, Alexandria, Egypt. Vaccine and Biologicals Dept, World Health Organization, Geneva, Switzerland. Respiratory and Enteric Viruses Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases; Vaccine Preventable Disease Eradication Div, National Immunization Program, CDC.

**Editorial Note:** Member countries of EMR have made remarkable progress toward polio eradication since 1988. Most EMR countries are now polio-free in the presence of high-quality AFP surveillance, and the intensity of virus transmission is decreasing rapidly in countries where polio is endemic. Supplementary vaccination campaigns and AFP surveillance have been implemented in all EMR countries, including areas in conflict, in Afghanistan, Somalia, and Sudan (1,6). Progress made in those countries faced with armed conflict, political instability or economic sanctions, poor health infrastructure, and population displacement is encouraging.

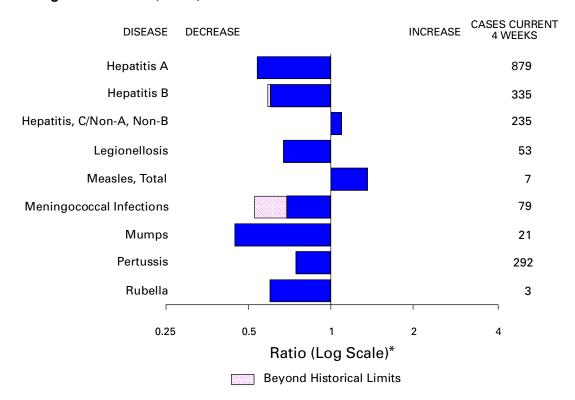
EMR countries have gained sufficient experience in the most challenging circumstances to implement effectively accelerated polio eradication activities. Accelerated activities to stop virus transmission by the end of 2000 have begun in seven countries of EMR where polio is known or suspected to be endemic. Efforts to improve the quality of vaccination campaigns include advanced preparations, better local level planning, extensive supervision, house-to-house vaccination, community mobilization, and heightened political commitment. Additional NIDs, SNIDs, or "mopping-up" will be conducted during the next 18–24 months in these countries. AFP surveillance is being strengthened through regular active surveillance in major health facilities, designation and training of responsible staff, and strong central coordination, supervision, monitoring, and evaluation.

Rapid reduction in virus transmission during summer 1999 in Egypt and parts of Pakistan where additional intensified campaigns were conducted in spring 1999 has provided strong preliminary evidence of the impact of these accelerated vaccination activities. During 1999, training of designated staff followed by implementation of regular active surveillance at lower administrative levels in selected districts and governorates of Pakistan and Yemen, have led to rapid improvements in surveillance performance in these countries. Undetected circulation of wild poliovirus type 3 in Egypt for >2 years highlight the importance of high quality surveillance at subnational levels. Undetected circulation of wild poliovirus type 1 in Iraq indicates the need for ensuring that all components of an AFP surveillance system, particularly stool specimen collection, storage, transport, and testing in a WHO-accredited laboratory, are functioning adequately. A greater emphasis has been placed on improving surveillance performance at subnational levels in these two countries.

Successfully implementing accelerated activities will require strong and more effective political commitment from the highest level within the countries<sup>††</sup>. Further consolidation is needed among WHO, United Nations Children's Fund, other United Nations agencies, and nongovernmental organizations (NGOs), particularly in areas of

<sup>††</sup>EMR polio eradication efforts are supported by its member countries, WHO, United Nations Children's Fund (UNICEF), Rotary International, CDC, the United Kingdom, Japan, Canada, Denmark, Norway, and Italy.

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



<sup>\*</sup>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 November 20, 1999 (46th Week)

		Cum. 1999		Cum. 1999
Cyclosporiasi Diphtheria Encephalitis: Ehrlichiosis Hansen Disea Hantavirus pu	California* eastern equine* St. Louis* western equine* human granulocytic (HGE)* human monocytic (HME)*	- 45 3 6 49 2 54 6 1 133 37 90 18 93	HIV infection, pediatric*§ Plague Poliomyelitis, paralytic Psittacosis* Rabies, human Rocky Mountain spotted fever (RMSF) Streptococcal disease, invasive Group A Streptococcal toxic-shock syndrome* Syphilis, congenital Tetanus Toxic-shock syndrome Trichinosis Typhoid fever Yellow fever	121 8 - 15 476 1,838 30 204 30 101 8 276 1

<sup>-:</sup> no reported cases

<sup>\*</sup>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 October 24, 1999.

¶ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending November 20, 1999, and November 21, 1998 (46th Week)

									erichia 157:H7*	
	Al	IDS	Chla	mydia	Cryptosp	oridiosis	NE <sup>-</sup>	TSS		ILIS
Reporting Area	Cum. 1999†	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	37,420	40,205	517,388	524,226	2,138	3,434	3,052	2,687	2,098	2,046
NEW ENGLAND	1,904	1,602	17,713	17,832	134	143	293	306	323	260
Maine N.H.	68 38	26 25	904 845	950 864	27 17	29 15	36 31	35 43	31	44
Vt.	15	18	417	375	35	26	32	19	20	17
Mass. R.I.	1,231 90	843 118	8,166 2,075	7,417 2,021	49 6	66 7	166 28	139 12	175 26	148 1
Conn.	462	572	5,306	6,205	-	-	Ü	58	71	50
MID. ATLANTIC	9,663	10,597	53,094	54,848	396	529	286	277	78	84
Upstate N.Y. N.Y. City	1,146 5,100	1,311 5,853	N 21,963	N 23,302	157 116	314 191	226 10	199 12	- 17	12
N.J. Pa.	1,741	1,930	9,152	10,499	36	24	50	66	32	51 21
E.N. CENTRAL	1,676 2,519	1,503 2,806	21,979 71,473	21,047 88,033	87 536	N 689	N 654	N 415	29 454	344
Ohio	403	568	21,000	24,027	60	70	228	111	181	69
Ind. III.	285 1,201	447 1,038	9,913 22,015	9,864 23,799	38 67	52 81	99 216	93 108	59 81	49 76
Mich.	504	577	18,545	17,936	45	37	111	103	73	64
Wis.	126	176	U	12,407	326	449	N	N	60	86
W.N. CENTRAL Minn.	846 161	769 147	31,605 6,045	31,228 6,282	200 77	313 130	573 223	450 188	386 168	384 201
lowa	72	62	4,214	4,058	54	63	112	91	73	58
Mo. N. Dak.	408 6	365 5	12,030 707	11,048 935	29 18	25 30	60 16	47 11	58 14	61 15
S. Dak.	13	15	1,338	1,381	7	24	44	32	59	36
Nebr. Kans.	61 125	60 115	3,045 4,226	2,596 4,928	14 1	35 6	97 21	48 33	14	13
S. ATLANTIC	10,275	10,643	112,358	101,355	345	323	312	234	155	165
Del.	147	122	2,400	2,291	-	3	6	-	3	2
Md. D.C.	1,242 496	1,479 750	10,333 N	6,560 N	18 8	18 25	41 1	40 1	4 U	14 U
Va. W. Va.	689	882	12,624	12,023	26 3	20 2	69	N 12	55 8	51 10
N.C.	61 688	70 753	1,204 19,221	2,160 19,847	23	N N	11 66	54	51	47
S.C. Ga.	847 1,466	684 1,063	10,513 29,738	14,761 21,598	- 123	- 115	20 32	15 73	14	12
Fla.	4,639	4,840	26,325	22,115	144	140	66	73 39	20	29
E.S. CENTRAL	1,666	1,680	39,822	36,270	27	24	117	114	58	64
Ky. Tenn.	236 643	262 620	6,633 12,221	5,705 12,097	6 6	10 8	46 43	34 51	38	40
Ala.	423	455	11,157	9,060	11	N	23	23	16	20
Miss.	364	343	9,811	9,408	4	6	5	6	4	4
W.S. CENTRAL Ark.	3,822 158	5,088 189	72,032 5,307	79,738 3,536	82 2	899 6	125 15	97 11	118 8	99 10
La.	742	835	11,220	13,470	22	15	9	5	14 24	7
Okla. Tex.	113 2,809	274 3,790	7,269 48,236	8,518 54,214	10 48	N 878	28 73	23 58	72	8 74
MOUNTAIN	1,469	1,411	27,329	29,196	90	120	306	351	195	243
Mont. Idaho	11 21	28 28	1,393 1,517	1,204 1,809	10 8	10 17	24 63	15 38	20	5 25
Wyo.	10	3	670	625	1	2	15	53	14	55
Colo. N. Mex.	271 78	286 188	5,180 3,308	7,026 3,280	12 39	18 46	108 12	85 19	87 5	67 20
Ariz.	745	550	10,769	10,325	12	18	30	43	20	26
Utah Nev.	129 204	114 214	1,910 2,582	1,927 3,000	N 8	N 9	38 16	74 24	47 2	21 24
PACIFIC	5,256	5,609	91,962	85,726	328	394	386	443	331	403
Wash. Oreg.	305 185	369 146	10,702 5,204	9,740 5,034	N 88	N 65	147 73	102 102	158 68	127 98
Calif.	4,673	4,918	71,906	67,000	240	326	155	232	94	162
Alaska Hawaii	13 80	17 159	1,611 2,539	1,670 2,282	-	3	1 10	7	1 10	- 16
Guam	5	155	302	377	-	-	N	N	U	U
P.R.	1,094	1,585	U	U	-	N	5	5	U	U
V.I. Amer. Samoa	36	31 -	U U	U U	U U	U U	U U	U U	U U	U U
C.N.M.I.	-	-	Ü	Ü	Ü	Ū	Ū	Ū	Ŭ	Ü

N: Not notifiable U: Unavailable

Public Health Laboratory Information System (PHLIS).

†Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update October 24, 1999.

<sup>-:</sup> no reported cases

C.N.M.I.: Commonwealth of Northern Mariana Islands

<sup>\*</sup>Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending November 20, 1999, and November 21, 1998 (46th Week)

	Gond	orrhea	Hepa C/N/	atitis A,NB	Legion	ellosis	Lyı Dise	
Reporting Area	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	284,215	312,812	2,911	2,981	810	1,168	11,395	14,560
NEW ENGLAND	5,397	5,333	12	57	73	79	3,124	4,427
Maine N.H.	71 94	61 82	2	-	3 8	1 7	41 21	76 42
Vt. Mass.	42 2,259	34 2,005	6 1	5 49	14 28	7 32	23 890	11 678
R.I. Conn.	522 2,409	359 2,792	3	3	9 11	19 13	464 1,685	598 3,022
MID. ATLANTIC	34,035	34,089	118	- 197	175	296	6,578	8,085
Upstate N.Y. N.Y. City	6,031 11,762	6,480 10,511	83	100	57 9	104 34	3,512 32	3,767 225
N.J.	5,508	7,107	-	U	18	15	922	1,761
Pa. E.N. CENTRAL	10,734	9,991	35	97	91	143 385	2,112	2,332
Ohio	47,774 12,752	60,874 15,731	1,379 3	619 8	220 65	121	118 70	739 44
Ind. III.	5,386 16,618	5,820 19,732	1 41	5 38	38 22	70 50	19 12	36 14
Mich. Wis.	13,018 U	13,945	743 591	430 138	59 36	79 65	1 16	12 633
W.N. CENTRAL	13,657	5,646 15,585	286	39	43	60	246	203
Minn. Iowa	2,332 1,053	2,415 1,362	10	10 8	9 11	6 9	179 19	152 26
Mo.	6,930	8,115	264	13	14	16	25	11
N. Dak. S. Dak.	71 160	75 203	1 -	-	2 3	3	1 -	-
Nebr. Kans.	1,285 1,826	1,099 2,316	5 6	5 3	4	18 8	10 12	3 11
S. ATLANTIC	84,640	84,121	188	104	127	133	1,047	826
Del. Md.	1,476 8,853	1,350 8,561	1 39	18	13 29	12 34	51 743	65 583
D.C. Va.	3,166 8,527	3,829 8,335	1 10	11	3 30	7 19	4 112	4 65
W. Va.	363	784	17	6	N	N	16	12
N.C. S.C.	17,041 6,181	17,088 9,335	34 22	21 9	14 11	14 10	67 7	54 7
Ga. Fla.	20,377 18,656	17,806 17,033	1 63	9 30	1 26	8 29	- 47	5 31
E.S. CENTRAL	31,788	35,050	226	260	37	60	71	101
Ky. Tenn.	3,005 9,901	3,315 10,583	21 79	20 153	19 14	26 21	9 30	25 41
Ala. Miss.	9,925 8,957	11,591 9,561	1 125	4 83	4	6 7	19 13	21 14
W.S. CENTRAL	40,315	49,144	313	506	23	30	43	21
Ark. La.	2,824 8,880	3,525 11,564	18 102	21 101	2	1 4	4	6 4
Okla. Tex.	3,585 25,026	4,718	14 179	14 370	3 18	12 13	4 35	2
MOUNTAIN	25,026 8,141	29,337 8,117	179	355	42	67	35 18	9 17
Mont. Idaho	48 77	43 152	5 7	7 86	2	2 2	5	- 5
Wyo.	28	29	37	89	-	1	3	1
Colo. N. Mex.	2,159 664	1,854 795	21 8	31 91	11 1	16 2	1	4
Ariz. Utah	3,888 200	3,749 204	40 6	11 21	6 16	17 21	2 5	1 -
Nev.	1,077	1,291	8	19	6	6	2	6
PACIFIC Wash.	18,468 1,874	20,499 1,742	257 18	844 22	70 13	58 12	150 10	141 7
Oreg. Calif.	759 15,210	732	17 222	18 750	N 56	N 44	12 128	20 113
Alaska	260	17,288 280	-	-	1	1	-	1
Hawaii Guam	365 39	457 63	- 1	54 1	-	1 2	N -	N 1
P.R.	297	340	-	-	-	-	N	N
V.I. Amer. Samoa	U U	U U	U U	U U	U U	U U	U U	U U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable

U: Unavailable

-: no reported cases

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending November 20, 1999, and November 21, 1998 (46th Week)

				-		Salmon	ellosis*	
	Ma	laria	Rabies,	Animal	NE	TSS	PH	LIS
Reporting Area	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	1,170	1,322	5,364	6,621	33,317	37,950	25,669	30,850
NEW ENGLAND	59 3	64	803	1,324 215	1,504	2,298 153	1,867 95	2,112
Maine N.H.	2	5 5	160 50	74	124 124	174	131	61 208
Vt. Mass.	4 22	1 25	86 194	61 468	87 1,047	129 1,211	76 1,025	103 1,245
R.I.	4	10	89	88	122	132	147	34
Conn. MID. ATLANTIC	24	18	224	418	U 4.000	499	393	461
Upstate N.Y.	280 <b>6</b> 8	386 85	1,033 743	1,449 1,007	4,080 1,224	6,035 1,476	3,545 1,127	5,367 1,271
N.Y. City N.J.	126 48	217 53	U 160	U 202	1,219 665	1,743 1,338	927 535	1,369 1,260
Pa.	38	31	130	240	972	1,478	956	1,467
E.N. CENTRAL Ohio	135 18	139 15	143 34	120 55	4,808 1,189	5,708 1,395	3,102 953	4,383 1,042
Ind.	18	10	13	11	479	597	376	481
III. Mich.	54 37	56 46	10 83	N 35	1,485 858	1,745 1,054	399 856	1,416 975
Wis.	8	12	3	19	797	917	518	469
W.N. CENTRAL Minn.	72 41	86 52	645 101	652 107	2,026 574	2,102 522	2,080 625	2,144 611
lowa	13	7	147	139	242	344	197	269
Mo. N. Dak.	14 -	14 2	14 130	38 129	678 43	566 59	817 49	775 67
S. Dak. Nebr.	-	- 1	163 3	149 7	89 181	108 170	108 78	118 44
Kans.	4	10	87	83	219	333	206	260
S. ATLANTIC	313	283	1,912	2,168	7,950	7,786	4,791	5,615
Del. Md.	1 86	3 83	37 367	47 417	129 807	72 845	144 891	110 823
D.C. Va.	17 67	18 52	- 523	- 515	67 1,161	73 1,012	U 905	U 802
W. Va.	2	2	99	70	147	143	142	147
N.C. S.C.	26 17	27 6	376 132	523 136	1,186 639	1,154 586	1,211 454	1,310 500
Ga. Fla.	22 75	35 57	204 174	274 186	1,376 2,438	1,528 2,373	651 393	1,398 525
E.S. CENTRAL	21	32	238	253	1,719	2,119	938	1,450
Ky. Tenn.	7 6	7 16	35 82	30 129	374 317	333 544	- 487	124 643
Ala.	7	6	120	92	544	635	374	533
Miss. W.S. CENTRAL	1 16	3 34	1 89	2 28	484 3,549	607 4,341	77 2,880	150 2,939
Ark.	3	1	14	28	597	567	120	340
La. Okla.	10 2	14 3	- 75	- N	334 386	653 445	472 291	741 211
Tex.	1	16	-	-	2,232	2,676	1,997	1,647
MOUNTAIN Mont.	41 4	60 1	178 55	242 51	2,767 70	2,297 74	2,254 1	1,839 43
ldaho	3	8	-	N	112	113	81	90
Wyo. Colo.	1 16	18	42 1	63 42	65 649	59 492	49 657	55 463
N. Mex. Ariz.	2 8	12 8	9 58	6 48	354 858	272 742	217 709	240 623
Utah	4	1	8	26	486	326	487	122
Nev. PACIFIC	3 233	12 238	5 323	6 385	173 4,914	219 5,264	53 4,212	203 5,001
Wash.	25	17	-	-	593	462	777	614
Oreg. Calif.	19 177	15 199	2 314	7 355	389 3,572	278 4,211	455 2,707	301 3,778
Alaska Hawaii	1 11	2 5	7	23	51 309	53 260	15 258	32 276
Guam	-	2	-	-	309 24	36	256 U	276 U
P.R.	-	-	64	47	255	725	U	U
V.I. Amer. Samoa	U U	U U	U U	U U	U U	U U	U U	U U
C.N.M.I.	Ū	Ü	Ü	Ũ	Ü	Ü	Ŭ	Ŭ

N: Not notifiable U: Unavailable -: no reported cases
\*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending November 20, 1999, and November 21, 1998 (46th Week)

		Shige	llosis*		Syph	nilis		
	NE.	TSS	PH	LIS	(Primary &	Secondary)	Tubero	ulosis
Reporting Area	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.
	1999	1998	1999	1998	1999	1998	1999 <sup>†</sup>	1998 <sup>†</sup>
UNITED STATES	14,049	19,564	6,500	11,104	5,782	6,358	12,183	14,937
NEW ENGLAND Maine	714 5	388 12	710	340	51	69 1	367 16	390 11
N.H.	16	16	14	19	1	2	10	-
Vt.	6	6	4	2	3	4	2	4
Mass.	664	253	621	244	32	40	209	223
R.I.	23	34	18	13	2	1	39	49
Conn.	U	67	53	62	13	21	91	103
MID. ATLANTIC	839	2,188	415	1,611	222	287	2,262	2,706
Upstate N.Y.	254	570	62	201	25	35	280	338
N.Y. City	258	663	82	568	79	72	1,220	1,280
N.J.	195	619	121	593	48	91	451	546
Pa.	132	336	150	249	70	89	311	542
E.N. CENTRAL	2,533	2,653	1,159	1.426	1,240	916	1,136	1,463
Ohio	379	459	124	129	84	128	214	214
Ind.	293	150	94	39	613	184	83	141
III.	993	1,456	592	1,187	335	370	508	685
Mich.	388	242	280	4	208	176	246	328
Wis.	480	346	69	67	U	58	85	95
W.N. CENTRAL	1,030	965	668	576	108	122	427	427
Minn.	222	287	212	321	9	9	178	131
Iowa	57	63	48	44	9	2	40	43
Mo. N. Dak.	633 3	151 9	327 2	113 3	72	91	151 6	155 8
S. Dak.	13	31	6	22	-	1	17	17
Nebr.	65	358	35	19	8	6	16	26
Kans.	37	66	38	54	10	13	19	47
S. ATLANTIC	2,201	3,878	406	1,185	1,803	2,356	2,487	2,772
Del.	12	35	8	33	8	20	12	33
Md.	147	193	50	64	307	617	241	270
D.C.	50	30	U	U	59	84	45	97
Va.	122	183	51	81	142	137	247	250
W. Va.	8	11	5	7	2	3	35	38
N.C.	189	299	80	169	400	664	348	398
S.C.	120	167	60	88	235	305	218	250
Ga.	212	1,005	37	233	368	263	532	459
Fla.	1,341	1,955	115	510	282	263	809	977
E.S. CENTRAL	954	1,239	456	979	1,011	1,091	768	1,041
Ky.	225	126	399	45	94	94	166	148
Tenn.	508	627		716	561	513	272	364
Ala.	108	433	47	211	196	257	274	330
Miss.	113	53	10	7	160	227	56	199
W.S. CENTRAL	2,429	3,985	1,849	1,279	837	960	1,265	2,208
Ark.	73	198	23	60	76	104	147	136
La.	118	315	111	272	208	384	U	256
Okla.	448	491	149	152	164	81	120	149
Tex.	1,790	2,981	1,566	795	389	391	998	1,667
MOUNTAIN	1,038	1,176	636	677	205	217	384	493
Mont.	. 9	. 8	-	3	1	-	13	18
Idaho	25	19	9	14	1	2	14	10
Wyo.	3	3	1	1	-	1	3	4
Colo.	180	207	137	152	2	10	U	60
N. Mex.	128	276	62	159	11	22	54	62
Ariz.	551	563	360	301	182	163	184	189
Utah	61	39	61	28	2	4	38	47
Nev.	81	61	6	19	6	15	78	103
PACIFIC	2,311	3,092	201	3,031	305	340	3,087	3,437
Wash.	102	201	98	171	64	27	156	231
Oreg.	80	176	76	146	9	5	90	123
Calif.	2,097	2,660	2	2,660	228	304	2,630	2,881
Alaska	3	9		5	1	1	51	47
Hawaii	29	46	2 25	49	3	3	160	155
Guam	8	34	U	U	1	1	11	82
P.R.	62	57	U	U	143	162	41	140
V.I. Amer. Samoa	U	U	Ü	Ü	Ŭ U	U	U U	Ü
C.N.M.I.	Ü	U U	Ü	Ü	Ü	Ü	Ü	Ü

N: Not notifiable U: Unavailable -: no reported cases
\*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

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

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending November 20, 1999, and November 21, 1998 (46th Week)

	H. infl	ienzae,	A . Cum. Cu		ral), by typ	е			Measl	es (Rubec	ola)	
		sive			-		Indi	genous	Imp	orted*		tal
Reporting Area	Cum. 1999 <sup>†</sup>	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	1999	Cum. 1999	1999	Cum. 1999	Cum. 1999	Cum. 1998
UNITED STATES	1,000	956	15,088	19,930	5,592	8,530	-	58	-	24	82	88
NEW ENGLAND	88	64	263	261	93	196	-	6	-	5	11	3
Maine N.H.	7 20	3 10	12 18	19 14	1 15	4 18	-	-	-	1	1	-
Vt. Mass.	5 34	8 37	19 90	15 114	3 38	8 71	-	- 5	-	3	- 8	1 2
R.I.	5	5	21	16	34	66	-	-	-	-	-	-
Conn.	17	1	103	83	2	29	-	1	-	1	2	-
MID. ATLANTIC Upstate N.Y.	159 76	156 55	871 244	1,534 321	538 166	1,104 221	-	-	-	2 2	2 2	14 2
N.Y. City N.J.	37 45	40 51	270 112	538 319	175 41	386 186	- U	-	Ū	-	-	- 8
Pa.	1	10	245	356	156	311	Ŭ	-	Ŭ	-	-	4
E.N. CENTRAL	152	164	2,523	3,207	571 84	1,280	-	1	-	2	3	15
Ohio Ind.	51 22	46 40	599 100	278 144	36	72 103	-	1	-	1	2	1 3
III. Mich.	65 13	59 12	643 1,123	720 1,888	1 431	214 413	- U	-	- U	- 1	- 1	- 10
Wis.	1	7	58	177	19	478	ŭ	-	Ŭ	-	-	1
W.N. CENTRAL	83	84	843	1,244	332	368	-	1	-	-	1	-
Minn. Iowa	43 9	65 2	93 127	118 392	50 35	45 52	-	1 -	-	-	1 -	-
Mo. N. Dak.	22 1	10	521 3	579 3	203 2	220 4	Ū	-	Ū	-	-	-
S. Dak.	1	-	9	31	1	2	U	-	U	-	-	-
Nebr. Kans.	3 4	1 6	50 40	25 96	14 27	20 25	Ū	-	Ū	-	-	-
S. ATLANTIC	216	169	1,816	1,808	1,094	927	-	14	-	6	20	8
Del. Md.	- 55	- 50	2 319	3 371	1 151	3 124	U	-	U	-	-	1 1
D.C.	4	-	54	56	23	11	U	-	U	-	-	-
Va. W. Va.	18 6	16 6	164 34	190 7	86 22	90 8	Ū	14 -	Ū	4	18 -	2
N.C. S.C.	31 5	23 3	145 44	115 37	208 65	212 41	U	-	U	-	-	-
Ga.	55	43	439	580	159	127	-	-	-	-	-	2
Fla.	42	28	615	449	379	311	U	-	U	2	2	2
E.S. CENTRAL Ky.	51 6	56 7	353 61	374 30	366 42	460 46	-	2 2	-	-	2 2	2
Tenn. Ala.	27 15	32 14	142 54	205 72	165 77	252 68	-	-	-	-	-	1 1
Miss.	3	3	96	67	82	94	-	-	-	-	-	-
W.S. CENTRAL	45	51	3,579	3,663	779	1,878	-	9	-	4	13	-
Ark. La.	2 7	21	58 73	78 98	64 77	99 152	Ū	4	Ū	-	4 -	-
Okla. Tex.	32 4	27 3	412 3,036	539 2,948	110 528	92 1,535	-	- 5	-	- 4	9	-
MOUNTAIN	101	106	1,160	2,864	512	733	_	3	_	-	3	4
Mont.	3	-	17	91	17	5	U	-	U	-	-	-
ldaho Wyo.	1 1	1 1	40 7	226 36	27 13	40 9	-	-	-	-	-	-
Colo. N. Mex.	11 18	21 6	201 47	301 137	87 156	98 284	-	-	-	-	-	-
Ariz.	54	54	670	1,692	132	160	U	1	U	-	1	4
Utah Nev.	10 3	4 19	56 122	176 205	34 46	65 72	Ū	2	- U	-	2	-
PACIFIC	105	106	3,680	4,975	1,307	1,584	-	22	-	5	27	42
Wash. Oreg.	6 39	9 38	299 221	906 405	63 81	100 177	Ū	9	Ū	-	- 9	1 -
Calif.	46	47	3,135	3,595	1,136	1,279	-	13	-	4	17	8
Alaska Hawaii	6 8	4 8	10 15	17 52	14 13	13 15	U -	-	U -	- 1	- 1	33
Guam	_	-	2	1	2	2	U	1	U	-	1	-
P.R. V.I.	1 U	2 U	112 U	67 U	102 U	225 U	U U	- U	U	- U	Ū	- U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U	U	U	U	U

N: Not notifiable

U: Unavailable

-: no reported cases

<sup>\*</sup>For imported measles, cases include only those resulting from importation from other countries.

<sup>&</sup>lt;sup>†</sup>Of 192 cases among children aged <5 years, serotype was reported for 98 and of those, 27 were type b.

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending November 20, 1999, and November 21, 1998 (46th Week)

	_	ococcal ease		Mumps	21, 100	0 ( 101	Pertussis	,		Rubella	
Panarting Area	Cum.	Cum.	1000	Cum.	Cum.	1000	Cum.	Cum.	4000	Cum.	Cum.
Reporting Area UNITED STATES	<b>1999</b> 2,073	<b>1998</b> 2,348	<b>1999</b> 3	<b>1999</b> 308	<b>1998</b> 590	<b>1999</b> 89	<b>1999</b> 5,031	<b>1998</b> 5,996	<b>1999</b> 2	<b>1999</b> 230	<b>1998</b> 348
NEW ENGLAND	102	2,346 107	-	8	590 8	7	606	935	-	230 7	38
Maine N.H.	5 13	6 11	-	1	-	-	78	5 109	-	-	-
Vt.	5	5	-	1	-	4	67	71	-	-	-
Mass. R.I.	58 6	52 8	-	4 2	5 1	3	400 33	698 9	-	7	8 1
Conn.	15	25	-	-	2	-	28	43	-	-	29
MID. ATLANTIC Upstate N.Y.	195 62	255 72	2 2	32 12	185 7	24 24	840 669	574 300	2 2	24 20	147 114
N.Y. City N.J.	49 45	31 55	- U	3	155 6	U	10 12	41 25	Ū	1	19 13
Pa.	39	97	Ü	17	17	Ü	149	208	Ü	3	1
E.N. CENTRAL	355 124	358 127	-	39 17	76 27	3	429	771 261	-	2	-
Ohio Ind.	61	66	-	4	7	3	188 71	159	-	1	-
III. Mich.	96 42	92 42	Ū	11 7	10 29	Ū	68 54	115 66	Ū	1	-
Wis.	32	31	U	-	3	U	48	170	U	-	-
W.N. CENTRAL Minn.	226 49	202 31	-	13 1	32 13	1 -	366 188	538 306	-	124 5	39
lowa Mo.	41 91	39 71	-	7	11	- 1	54 61	68 35	-	29 3	2
N. Dak.	4	5	U	1	2	U	18	4	U	-	-
S. Dak. Nebr.	11 12	7 16	U -	-	-	U -	6 4	8 16	U -	- 87	-
Kans.	18	33	U	3	3	U	35	101	U	-	37
S. ATLANTIC Del.	373 8	403 2	Ū	49 -	47 -	25 U	392 5	307 5	Ū	36 -	19 -
Md. D.C.	51 1	30 1	Ū	7 2	-	3 U	106	61 1	U	1	1
Va.	50	40	-	10	8	20	50	36	-	-	1
W. Va. N.C.	7 41	17 55	U U	8	- 11	U U	3 86	2 98	U U	35	13
S.C. Ga.	43 59	53 91	-	4 4	7 1	2	17 40	27 27	-	-	-
Fla.	113	114	U	14	20	ū	85	50	U	-	4
E.S. CENTRAL Ky.	127 30	181 34	-	13	15	-	72 21	131 64	-	1	2
Tenn.	43	63	-	-	1	-	27	35	-	-	2
Ala. Miss.	32 22	49 35	-	10 3	8 <b>6</b>	-	21 3	26 6	-	1 -	-
W.S. CENTRAL	167	274	-	33	56	-	157	348	-	15	88
Ark. La.	32 34	28 53	Ū	3	12 7	Ū	18 3	81 9	Ū	6	-
Okla. Tex.	27 74	39 154	-	1 29	- 37	-	12 124	32 226	-	9	- 88
MOUNTAIN	128	133	1	28	37	23	673	1,065	-	16	5
Mont. Idaho	4 10	4 11	U 1	3	- 5	U 2	2 139	12 216	U -	-	-
Wyo. Colo.	4 32	6 26	-	5	1 6	- 5	139 2 190	8 274	-	- 1	-
N. Mex.	14	25	N	N	N	16	175	94	-	-	1
Ariz. Utah	42 15	39 13	U -	8 7	6 5	U -	102 56	191 229	U -	13 1	1 2
Nev.	7	9	U	5	14	U	7	41	U	1	1
PACIFIC Wash.	400 61	435 59	-	93 2	134 10	6 4	1,496 598	1,327 305	-	5 -	10 5
Oreg. Calif.	71 255	76 292	N	N 77	N 98	U 2	55 805	85 903	U	- 5	3
Alaska	6	3	Ū	2	2	Ű	5	14	Ū	-	-
Hawaii Guam	7 2	5 2	- U	12 1	24 5	- U	33 1	20 1	- U	-	2
P.R.	5	10	Ū	-	3	U	16	9	U		14
V.I. Amer. Samoa	U U	U U	U U	U U	U U	U U	U U	U U	U U	U U	U U
C.N.M.I.	Ü	Ü	Ü	Ū	Ü	Ü	Ū	Ü	Ü	Ü	Ü

N: Not notifiable

U: Unavailable

-: no reported cases

TABLE IV. Deaths in 122 U.S. cities,\* week ending November 20, 1999 (46th Week)

		All Cau	ıses, By	/ Age (Y	ears)		P&l <sup>†</sup>		/	All Cau	ıses, By	/ Age (Y	ears)		P&l <sup>†</sup>
Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	Total	Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND Boston, Mass. Bridgeport, Conn. Cambridge, Mass. Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Mass. New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass.	54 61 5 43	287 U 36 13 11 41 15 11 22 36 45 2 36 19	7 4 4 11 3 4 2 11 12 2 6	20 U - 2 4 2 - 1 5 2 1	4 U 1 - - 1 - - 1	4 U - - 2 - - 1 1	37 U 4 3 2 2 6 2 4 5 2 5 3	S. ATLANTIC Atlanta, Ga. Baltimore, Md. Charlotte, N.C. Jacksonville, Fla. Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla. Tampa, Fla. Washington, D.C. Wilmington, Del.	979 U 147 110 139 U 47 63 43 U 225 194 11	652 U 81 74 99 U 35 39 33 U 161 121	185 U 36 24 22 U 4 14 7 U 39 37 2	97 U 23 7 13 U 5 7 3 U 17 22	27 U 6 3 2 U - 2 - U 4 10 -	18 U 1 2 3 U 3 1 - U 4 4	49 U 13 8 8 U 2 4 1 U 7 6
Waterbury, Conn. Worcester, Mass. MID. ATLANTIC Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa. Jersey City, N.J. New York City, N.Y. Newark, N.J. Paterson, N.J. Philadelphia, Pa. Flitsburgh, Pa.§ Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa. Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	26 U 2,633 61 U 81 32 24 49 31 1,420 48 21 397 83 28 153 22 24 40 99 44 U U	1,855 47 U 566 17,77 20 344 23 9955 21 111 272 51 24 122 19 34 77 32 U U U	512 9 U 14 11 3 10 5 289 15 5 84 16 17 5 U	2 U 173 3 U 7 1 1 3 3 95 111 2 24 7 3 6 2 1 1 4 U U U	50 U 44 1 - 2 2 3 1 1 3 - 1 1 1 U U	17 - 3 4 9 3 2 U U	2 U 112 3 U 1 2 · 5 · 36 6 · 4 4 2 20 · 4 12 3 U U	E.S. CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn. Lexington, Ky. Memphis, Tenn. Mobile, Ala. Montgomery, Ala. Nashville, Tenn. W.S. CENTRAL Austin, Tex. Baton Rouge, La. Corpus Christi, Tex. Dallas, Tex. El Paso, Tex. Ft. Worth, Tex. Houston, Tex. Little Rock, Ark. New Orleans, La. San Antonio, Tex. Shreveport, La. Tulsa, Okla.	63 65 222 65 59 149 1,168 83 67	604 133 52 41 46 144 50 40 98 794 58 51 34 127 49 82 U 52 U 188 46 107	190 444 13 15 13 46 13 14 32 221 15 10 9 43 16 25 U 51 22 20	61 15 6 5 4 13 2 4 12 84 4 3 2 2 3 2 14 U 9 U 19 6	17 3 2 1 1 7 - 3 36 2 3 1 10 6 4 U 2 U 4 2 2	26 4 3 1 1 1 2 1 1 4 33 4 U 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	80 26 65 4 18 5 8 8 6 2 5 3 4 1 1 5 U 3 U 1 6 6 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
E.N. CENTRAL Akron, Ohio Canton, Ohio Canton, Ohio Chicago, III. Cincinnati, Ohio Cleveland, Ohio Columbus, Ohio Dayton, Ohio Detroit, Mich. Evansville, Ind. Fort Wayne, Ind. Gary, Ind. Gary, Ind. Grand Rapids, Mich Indianapolis, Ind. Lansing, Mich. Milwaukee, Wis. Peoria, III. South Bend, Ind. Toledo, Ohio Youngstown, Ohio W.N. CENTRAL Des Moines, Iowa Duluth, Minn. Kansas City, Kans. Kansas City, Kans. Kansas City, Mo. Lincoln, Nebr. Minneapolis, Minn. Omaha, Nebr. St. Louis, Mo. St. Paul, Minn. Wichita, Kans.	146 39 156 49 46 49 108 72 680 58 40 39 85 37	1,345 44 232 90 162 93 87 43 62 U 31 93 32 114 35 32 36 81 61 495 59 25 59 32 167 71 U U U 68	13 12 80 35 32 20 39 13 12 0 11 33 8 27 7 7 22 7 107 11 5 33 14 0 0 0 0	136 3 130 8 139 233 4 4 4 7 1 1 2 3 3 4 4 1 1 2 3 7 1 1 2 3 7 1 1 2 3 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1	50 	52 2 4 4 29 5 2 5 2 1 1 1 - 2 1 3 3 4 - 7 7 3 0 U 2 3 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	133 6 4 0 U1 9 5 14 5 8 U 3 8 3 9 3 4 2 6 3 5 12 1 4 4 5 2 3 U U 3	MOUNTAIN Albuquerque, N.M. Boise, Idaho Colo. Springs, Colo Denver, Colo. Las Vegas, Nev. Ogden, Utah Phoenix, Ariz. Pueblo, Colo. Salt Lake City, Utah Tucson, Ariz.  PACIFIC Berkeley, Calif. Fresno, Calif. Glendale, Calif. Honolulu, Hawaii Long Beach, Calif. Los Angeles, Calif. Portland, Oreg. Sacramento, Calif. San Diego, Calif. San Francisco, Calif. San Jose, Calif. Santa Cruz, Calif. Seattle, Wash. Spokane, Wash. Tacoma, Wash. TOTAL	52 74 95 202 U 167 26 109 171 1,525 13 134 26 89 63 333 29 222 222 U U 169	713 80 38 51 73 145 U 106 19 73 128 1,067 8 99 42 235 59 42 235 156 U 114 U 80 23 81 34 95 7,812	176 16 10 11 11 39 U 34 3 23 23 7 16 11 59 6 45 U 22 5 41 4 15	76 10 3 7 7 16 10 16 2 8 7 102 14 16 2 18 2 7 790	20 2 1 2 1 1 6 1 4 3 3 5 2 3 10 1 1 7 7 1 1 3 3 2 5 2 3 2 3 2 5 2 3 2 5 2 5 2 5 3 2 5 5 2 5 5 5 5	19 1 3 4 1 1 U 5 5 1 3 1 7 - 6 U 5 U 5 4 2 1 1 252	58 11 56 51 12 10 5 13 12 4 6 13 20 4 21 10 5 10 8 13 7 18 7 18 7 18 7 18 7 18 7 18 7 18

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.

the region without any recognized governments. The intensified campaigns, additional NIDs, and rapid development of surveillance require substantial additional human and financial resources that must be provided jointly by the concerned governments and partner agencies and by the global coalition of partners and local NGOs in areas without a government.

#### References

- 1. CDC. Progress toward poliomyelitis eradication during armed conflict—Somalia and southern Sudan, January 1998–June 1999. MMWR 1999;48:633–7.
- 2. CDC. Wild poliovirus transmission in bordering areas of Iran, Iraq, Syria, and Turkey, 1997–June 1998. MMWR 1998;47:588–92.
- 3. CDC. Update: mass vaccination with oral poliovirus vaccine—Asia and Europe, 1996. MMWR 1996;45:911–4.
- 4. CDC. Update: progress toward poliomyelitis eradication—South East Asia Region, 1995–1997. MMWR 1997;46:468–73.
- 5. CDC. Virologic surveillance and progress toward poliomyelitis eradication—Eastern Mediterranean Region, 1995–September 1998. MMWR 1998;47:1001–5.
- 6. CDC. Progress toward poliomyelitis eradication—Afghanistan, 1994–1999. MMWR 1999;48:825–8.

# Contributors to the Production of the MMWR (Weekly) Weekly Notifiable Disease Morbidity Data and 122 Cities Mortality Data

Samuel L. Groseclose, D.V.M., M.P.H.

State Support Team
Robert Fagan
Jose Aponte
Paul Gangarosa, M.P.H.
Gerald Jones
David Nitschke
Carol A. Worsham

CDC Operations Team
Carol M. Knowles
Deborah A. Adams
Willie J. Anderson
Fredrick Browder
Patsy A. Hall
Kathryn Snavely

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 listserv@listserv.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) 512-1800.

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 (888) 232-3228.

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 Jeffrey P. Koplan, M.D., M.P.H. Acting Deputy Director for Science and Public Health, Centers for Disease Control and Prevention Stephen M. Ostroff, M.D.

Acting Director,
Epidemiology Program Office
Barbara R. Holloway, M.P.H.
Editor, MMWR Series
John W. Ward, M.D.
Managing Editor,
MMWR (weekly)
Karen L. Foster, M.A.

Writers-Editors,
MMWR (weekly)
Jill Crane
David C. Johnson
Teresa F. Rutledge
Caran R. Wilbanks
Desktop Publishing
Morie M. Higgins
Peter M. Jenkins

☆U.S. Government Printing Office: 2000-533-206/08036 Region IV