



- 861 Cluster of HIV-Infected Adolescents and Young Adults Mississippi, 1999
- 864 Nutritional Assessment of Adolescent Refugees — Nepal, 1999
- 867 Progress Toward Poliomyelitis Eradication — Ethiopia, 1997–August 2000
- 870 Notice to Readers

Cluster of HIV-Infected Adolescents and Young Adults — Mississippi, 1999

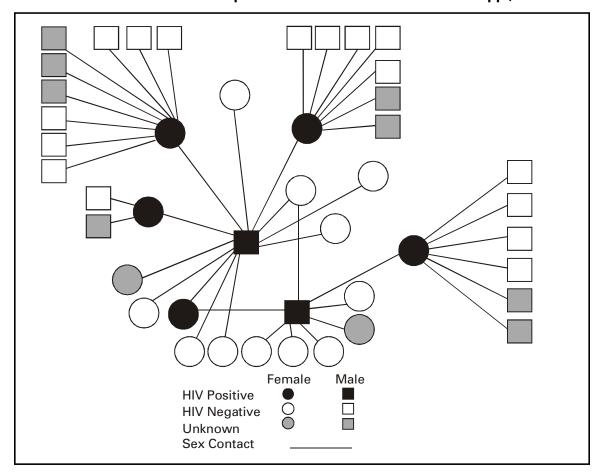
From February through June 1999, seven human immunodeficiency virus (HIV)-infected young persons were identified in a small town in rural Mississippi. Two persons were identified through routine voluntary HIV testing during sexually transmitted disease (STD) evaluations, and five were identified subsequently through contact investigation by the local health department. Contact investigation identified sex partners and social contacts (i.e., persons who shared social surroundings) and defined a social network of 122 sex and social contacts. Seven (9%) of 78 persons tested from the social network were HIV-infected. Within the social network, a sexual contact network of 44 persons (the seven HIV-infected persons and their sex partners) was identified. The Mississippi State Department of Health asked CDC to join the investigation to describe further the cluster and help direct prevention efforts. This report summarizes the investigation of this cluster and underscores the need for HIV prevention and treatment in rural areas.

HIV-infected persons and uninfected sex partners were interviewed, and a case-control analysis was performed to assess risk factors for infection. Uninfected female social contacts who had not had sex with the infected men also were interviewed and compared with the HIV-infected women to assess risk factors for exposure. Kruskal-Wallis (KW) and Fischer exact (FE) statistical tests were used. For HIV-infected persons, sensitive-less sensitive detuned assays (1) were performed to identify persons probably infected within 180 days of diagnosis, and CD4+ cell counts and plasma HIV-1 RNA levels were measured to identify need for treatment. Questionnaires were mailed to local internists and family practitioners to establish HIV care patterns and practices in the area.

Persons in the sex network (Figure 1) had a median age of 21 years (range: 13–45 years), and all were black. The network was located in an economically depressed neighborhood with few organized social activities. Interviews with the seven HIV-infected persons (five women) and 22 uninfected sex partners (10 women) indicated that HIV was acquired locally through heterosexual contact. Of the 29 persons, 15 (52%, [four infected and 11 uninfected]) had a history of other STDs, and 28 (97%) reported multiple lifetime sex partners. Three of five infected women had STD co-infection when HIV was diagnosed. Factors associated with HIV infection in the five women were young age (median: 16 years, compared with 25 years for the infected men [KW p=0.05] and 20.5 years for the uninfected women [KW p=0.04]); a stated preference for "much older" sex partners (three of five infected women compared with one of 10 uninfected women

Sex Network — Continued

FIGURE 1. Sex network of seven persons with HIV infection — Mississippi, 1999



[FE p=0.08]); and having had a sex partner who was at least 10 years older (three of four responding infected women compared with two of 10 uninfected women [FE p=0.09]). Infected persons also began engaging in sex at a younger age (median: 13 years; range: 11–14 years compared with uninfected persons, median: 14.5 years, range: 12–17 years; [KW p=0.08]). Alcohol use, drug use, and exchange of sex for alcohol, drugs, or money were not associated with HIV infection in this cluster.

Interviews with seven uninfected female social contacts indicated they were similar to the infected women in age (median: 18 years for the social contacts). Common characteristics of infected women and social contacts included low socioeconomic status (seven of 12 women received federal aid), absentee fathers (nine of 12 persons), truancy (six of nine persons in school), and school failure (six of 12 persons having repeated at least 1 year in school). No social contacts reported having had sex partners that were ≥10 years older than themselves compared with three of the four infected women who responded.

Laboratory results and medical histories indicated that antiretroviral therapy was recommended in all infected persons (2). Two persons had seen a doctor since HIV infection was diagnosed. Five of seven persons did not know treatment for HIV infection existed. Of five persons who remembered being referred to care on diagnosis, all were referred to a facility >2 hours away, and one had been seen at that facility. The six remaining persons were willing to be linked to care once they knew HIV care was available locally.

Sex Network — Continued

Survey responses were received from five of six internists and two of six family practitioners. Of the seven responding physicians, one cared for approximately 60 HIV-infected persons and was the only one who reported practices consistent with guidelines for monitoring and treating asymptomatic persons. The others had provided ongoing care to <10 HIV-infected persons; most reported referring persons for care because they lacked experience in HIV treatment.

Reported by: State health officers, state epidemiologist, district health officers, and disease intervention specialists, Mississippi State Dept of Health. Div of Applied Public Health Training, Epidemiology Program Office; Div of HIV/AIDS Prevention–Intervention Research and Support, and Div of HIV/AIDS–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention; and EIS officers, CDC.

Editorial Note: The findings in this report suggest that STDs and multiple sex partners in small town sex networks provide a setting for the transmission of HIV among adolescents in the rural South. HIV infection can spread rapidly through sex networks in low-prevalence rural areas (3). Among adolescents, disadvantaged black women in the South have some of the highest HIV infection rates in the United States and must be a high priority for prevention activities (4).

The method by which persons in this cluster were identified underscores the importance of providing routine voluntary HIV counseling and testing services during STD evaluations. In addition, partner counseling and referral services can be especially useful for identifying partners in need of prevention services and for identifying the extent of the HIV-infection network. This cluster also highlights the challenges of service delivery in a rural area with limited HIV prevention and treatment resources.

The age-discrepant relations in this cluster have implications for both HIV transmission and primary prevention programs. Adult partners contribute substantially to STDs and pregnancies among teenagers (5). Young women are at risk for HIV infection at an earlier age than are heterosexual men, probably because the women are infected by older sex partners (6). Age difference also may affect adolescents' abilities to negotiate safer sex and condom use. Prevention efforts should address age-discrepant relationships.

Secondary prevention measures, such as links to ongoing HIV care and antiretroviral therapy, can improve health and survival and potentially decrease, although not eliminate, infectivity. Following this investigation, efforts to link HIV-infected persons to care have been extended in this health district. Challenges to secondary prevention in rural areas include awareness of treatment options and identification and training of appropriate local HIV care providers.

In this cluster, identification of a qualified local care provider facilitated linkage to care and provided a potential point of coordination for social work, mental health care, and case-management services by the local health department. Where no experienced HIV care provider exists, identifying a practitioner willing to accept this role and to develop an ongoing relationship with a remote consultant would be an alternative.

References

- Janssen RS, Satten GA, Stramer SL, et al. New testing strategy to detect early HIV-1 infection for use in incidence estimates and for clinical and prevention purposes. JAMA 1998;280:42–8.
- CDC. Report of the NIH panel to define principles of therapy of HIV infection and guidelines for the use of antiretroviral agents in HIV-infected adults and adolescents. MMWR 1998;47(no. RR-5). Available at http://www.hivatis.org. Accessed January 28, 2000.

Sex Network — Continued

- 3. CDC. Cluster of HIV-positive young women—New York, 1997-1998. MMWR 1999;48:413-6.
- Valleroy LA, MacKellar DA, Karon JM, Janssen RS, Hayman CR. HIV infection in disadvantaged out-of-school youth: prevalence for U.S. Job Corps entrants, 1990–1996. J Acquir Immune Defic Syndr Hum Retrovirol 1998;19:67–73.
- 5. Males MA. Adult involvement in teenage childbearing and STD. Lancet 1995;346:64-5.
- 6. Wortley PM, Fleming PL. AIDS in women in the United States: recent trends. JAMA 1997;278:911–6.

Nutritional Assessment of Adolescent Refugees — Nepal, 1999

During 1990–1993, 83,000 ethnic Nepalese fled from Bhutan to refugee camps in southeast Nepal after new citizenship policies were enacted by the Bhutanese government. Although annual nutrition surveys of children aged <5 years had been conducted by international agencies, no anthropometric assessment of adolescents had been performed since the refugees arrived in 1990. After withdrawal of a fortified cereal from their rations, the number of reported cases of angular stomatitis (AS) (i.e., thinning and/or fissuring at the angles of the mouth, a sign of possible vitamin deficiency) increased six-fold during December 1998–March 1999 (from 5.5 to 35.6 cases per 1000 refugees) (Santa Tamang, MD, Save the Children Fund, United Kingdom, personal communication, 1999). The highest rates of AS were found among children and adolescents. In October 1999, CDC was invited by the World Food Programme and the United Nations High Commissioner for Refugees to assess the health status of adolescent refugees. This report summarizes the investigation, which indicated a high prevalence of low body mass index (BMI), anemia, low vitamin A status, and signs of micronutrient deficiencies among adolescent refugees.

The nutritional status of a sample of refugees aged 10–19 years was assessed using anthropometry, hemoglobin measurement, laboratory testing, and a limited physical examination. Height was measured to 0.04 inches (1 mm) using 6.9 foot (2 m) height boards, and weight was measured to the nearest 3.5 ounces (100 g) using digital bathroom scales. BMI was defined as weight (in kilograms)/(height² [in meters]). Low BMI was determined by comparing a person's BMI to that of persons of similar age and same sex in the World Health Organization (WHO) adolescent reference population (1). A fingerstick blood sample was collected to determine hemoglobin concentration using a hemoglobinometer. Anemia was defined according to WHO criteria (2). From half the participants, serum was collected by venipuncture for retinol (vitamin A) testing by high performance liquid chromatography (3,4). A retinol level <20 μ g/dL was considered low (3).

Participants aged 10–19 years were chosen by systematic random sampling from camp registration data of 26,235 adolescents; 400 were needed to generate prevalence estimates for low BMI and anemia. An additional 20% were chosen to ensure an adequate sample after accounting for persons who could not be located or who refused to participate. Data were analyzed using EpiInfo version 6.04b. Chi-square or Fisher's exact tests were used to compare data. For point estimates of prevalence rates, 95% confidence intervals (CIs) were calculated by the quadratic method.

Of the 495 selected adolescents, 463 (94%) were enrolled; 236 (51%) were female, 253 (55%) were aged 15–19 years, and 167 (36%) (95% Cl=32%–41%) had low BMI. Boys were twice as likely as girls to have low BMI (48% versus 24%; p<0.01), and participants

Nutrition Assessment — Continued

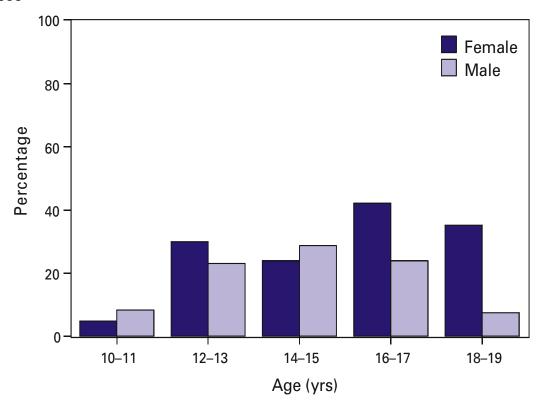
aged 10–14 years were 1.7 times as likely to have low BMI as those aged 15–19 years (64% versus 37%; p<0.001). The prevalence of low BMI declined with age among both sexes; however, this decline was substantially more rapid among girls.

Among the 458 participants who reported no recent iron tablet supplementation, 111 (24%) (95% Cl=20%–28%) were anemic. The mean and median hemoglobin values were both 13.0 g/dL (standard deviation [SD]=1.7). The prevalence of anemia among girls who received no iron supplementation increased sharply after age 11 years; 33% of girls aged \geq 12 had anemia, peaking at age 16–17 years (Figure 1) (trend test, p=0.05); 49 (37%) of 134 girls who reported having experienced menarche had anemia compared with 17 (17%) of 99 who had not (p=0.001). The prevalence of anemia among boys peaked at age 14–15 years and then decreased with age (Figure 1).

Among the 190 participants assessed, 49 (26%) (95% CI=23%–30%) had retinol levels that suggested low vitamin A status. The mean retinol level was 24 μ g/dL (SD=6.8) and the median was 23 μ g/dL. Two participants (1%) had serum retinol values <10 μ g/dL. Low serum retinol status was unrelated to age or sex.

On physical examination, participants showed signs of possible micronutrient deficiencies; 133 (29%) of 463 participants had AS. One participant had spontaneous gum bleeding and 27 (6%) had gums that bled upon touch. Tingling or burning in the hands or feet during the 30 days preceding the investigation was reported by 41% of the participants. Although severe goiter from iodine deficiency was not found on physical examination, three participants had a grade I goiter and one had a grade II goiter (5).

FIGURE 1. Prevalence of anemia among adolescent refugees, by age and sex — Nepal, 1999



Nutrition Assessment — Continued

Reported by: World Food Programme, United Nations High Commissioner for Refugees, Save the Children Fund, United Kingdom. Div of Nutrition and Physical Activity, National Center for Chronic Disease Prevention and Health Promotion; Div of Emergency Environmental Health Svcs, and Div of Laboratory Sciences, National Center for Environmental Health; and an EIS Officer, CDC.

Editorial Note: In 1992, a surveillance system was established in refugee camps in Nepal (6). This system allowed health-care providers to identify and report the increase in AS cases that led to this investigation.

Although low BMI was common among refugee adolescents, the prevalence of low BMI did not exceed that of adolescents from the general population of Nepal (7). Iron deficiency may affect up to two-thirds of pregnant women in developing countries and those who enter pregnancy with adequate iron stores are more likely to complete pregnancy without developing iron deficiency (8). The findings in this report indicate that adolescent female refugees in Nepal are at risk for iron deficiency.

The prevalence of low vitamin A status among participating adolescents was high. Persons aged 12–17 years may exhibit night vision problems when serum retinol levels are <20 μ g/dL (9). Few participants had detectable goiter probably because iodine deficiency was avoided as a result of the distribution of iodized salt.

The findings in this report are subject to at least three limitations. First, because the WHO reference population for evaluating BMI is based on data from the National Health and Nutrition Examination Survey of U.S. adolescents, the prevalence of low BMI among adolescent refugees in Nepal may be overestimated (10). Second, clinical evaluation for some micronutrient deficiencies has not been standardized. Third, the sensitivity and specificity of signs or symptoms of specific micronutrient deficiencies among adolescents has not been established.

On the basis of findings from this investigation, recommended nutritional improvements for adolescents in Nepal included distributing iron and folate supplements to girls, ensuring adequate vegetable oil fortification with vitamin A, continuing surveillance for signs of micronutrient deficiencies, and adding a fortified source of micronutrients to the food ration to increase daily nutrient consumption to international standards. Long-term recommendations included the support and expansion of vegetable production in camp gardens and the raising of poultry. Since this investigation, continued surveillance for signs of micronutrient deficiencies and expansion of vegetable production in camp gardens has occurred; the addition of whole lentils to the ration is planned.

References

- 1. World Health Organization Expert Committee on Physical Status. The use and interpretation of anthropometry. Geneva, Switzerland: World Health Organization Expert Committee on Physical Status, 1995; World Health Organization technical report series #854.
- 2. World Health Organization/United Nations Children's Fund. Consultation on iron deficiency: indicators and strategies for iron deficiency control programmes. Geneva, Switzerland: World Health Organization (in press).
- 3. World Health Organization. Indicators for assessing vitamin A deficiency and their application in monitoring and evaluating intervention programs. Geneva, Switzerland: World Health Organization, 1996.
- 4. Sowell AL, Huff DL, Yeager PR, Caudill SP, Gunter EW. Retinol, alpha-tocopherol, lutein/zeaxanthin, beta-cryptoxanthin, lycopene, alpha-carotene, trans-beta-carotene, and four retinyl esters in serum determined simultaneously by reversed-phase HPLC with multi-wavelength detection. Clin Chem 1994;40:411–6.

Nutrition Assessment — Continued

- 5. United Nations Children's Fund. Indicators for assessing iodine deficiency disorders and their control through salt iodization. New York, New York: United Nations Children's Fund, 1994.
- 6. CDC. Surveillance of the health status of Bhutanese refugees—Nepal, 1992. MMWR 1993;42:14–7.
- 7. Huijbers PM, Hendriks JL, Gerver WJ, De Jong PJ, De Meer K. Nutritional status and mortality of Highland children in Nepal: impact of sociocultural factors. Am J Phys Anthropol 1996;101:137–44.
- 8. Viteri FE. Prevention of iron deficiency. In: Howson CP, Kennedy ET, Horwitz A, eds. Prevention of micronutrient deficiencies: tools for policy makers and public health workers. Washington, DC: Institute of Medicine, National Academy Press, 1998.
- Pilch SM. Assessment of the vitamin A nutritional status of the U.S. population based on data collected in the Health and Nutrition Examination Surveys. Bethesda, Maryland: Life Sciences Research Office, Federation of American Biological Societies, 1990.
- Woodruff BA, Duffield A. Assessment of nutritional status in emergency-affected populations: adolescents. Report on the nutrition situation of refugees and displaced populations. Geneva, Switzerland: United Nations Agency Coordinating Committee Sub-Committee on Nutrition, 2000 (suppl 31).

Progress Toward Poliomyelitis Eradication — Ethiopia, 1997–August 2000

In 1988, the World Health Assembly resolved to eradicate poliomyelitis globally by 2000 (1). Following the signing of the Yaounde Declaration on Polio Eradication in Africa in 1996, Ethiopia joined global efforts toward polio eradication (2). Since then, Ethiopia has accelerated implementation of polio eradication strategies. This report summarizes progress toward polio eradication in Ethiopia during 1997–August 2000 and highlights the remaining challenges toward achieving the goal.

Routine Vaccination Coverage

During 1990–1999, reported coverage of children aged 0–11 months with 3 doses of oral poliovirus vaccine (OPV3) ranged from 20%–90%. The last comprehensive coverage survey conducted in 1995 estimated OPV3 coverage at 36%. Preliminary data from the 2000 Ethiopia Demographic and Health Survey estimates average OPV3 coverage at 35%.

Supplemental Vaccination Activities

In 1996, Ethiopia conducted Subnational Immunization Days* (SNIDS) for the first time, targeting 2.5 million children aged <5 years in nine major cities. Since then, the country has conducted two rounds of National Immunization Days† (NIDs) annually. Implementation of NIDs during 1997–1999 and SNIDs in 2000 has reached >90% of the target population (Table 1), including areas with limited access to routine health services. In 1999, intensified campaigns with delivery of vaccine house-to-house were conducted in three regions (Afar, Benshangul, and Somali) that had performed poorly in previous

^{*}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, usually aged <5 years, regardless of vaccination history, with an interval of 4–6 weeks between doses.

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

Poliomyelitis Eradication — Continued

years. As a result, 541,996 more children were reached in these regions compared with 1998 NIDs, which used only fixed-site vaccinations.

Despite improvements in vaccine delivery, pockets of unvaccinated children remain. During the 2000 house-to-house SNIDs, efforts were made to detect the proportion of children never vaccinated by routine services or during NIDs. Of children vaccinated during the 2000 SNIDs, an average of 25% (range: 1%–100%) had never received vaccine.

Acute Flaccid Paralysis Surveillance

Surveillance for acute flaccid paralysis (AFP) was initiated in 1997. During 1997–August 2000, the nonpolio AFP rate increased from 0.10 to 0.44 per 100,000 children aged <15 years (a sensitive system is defined as ≥1 per 100,000 children aged <15 years) (Table 2).

Surveillance performance among the 11 regions of Ethiopia varies substantially. Wild poliovirus isolates have been isolated in zones (subregional administrative units) where AFP surveillance is improving and reached nonpolio AFP levels >0.5. However, only 26 of Ethiopia's 71 zones have achieved this level; the more densely populated zones in central Ethiopia have nonpolio AFP rates <0.5, and 25 zones have not reported any AFP cases during 2000. These 25 zones also have very low (<20%) routine OPV3 coverage.

The proportion of adequate stool specimens from AFP case-patients (i.e., two stool specimens collected at an interval of at least 24 hours within 14 days of onset of paralysis and adequately shipped to the laboratory) has improved from 12% in 1998 to 44% in 2000 (Figure 1). All stool specimens routinely are split and tested in both the Ethiopia Health and Nutrition Research Institute (EHNRI) polio laboratory and the World Health Organization (WHO) accredited national laboratory in Uganda. The EHNRI polio laboratory is expected to attain WHO accreditation status by the end of 2000.

TABLE 1. Number of children reached by National Immunization Days (NIDs)* and Subnational Immunization Days (SNIDs)†, by year — Ethiopia, 1997–August 2000

Round	1997 NIDs	1998 NIDs	1999 NIDs	2000 SNIDs [§]	
1st	7,298,158	8,898,733	11,031,878	391,419	Τ
2nd	8,278,216	9,682,220	11,263,862	402,808	

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

TABLE 2. Key indicators for quality of acute flaccid paralysis (AFP) surveillance — Ethiopia, 1998–2000*

Year	No. AFP cases detected	% persons with stool samples within 14 days of paralysis onset	Nonpolio AFP rate [†]	Confirmed polio cases (virus confirmed)
1998	66	12%	0.30	55
1999	189	23%	0.28	131 (1)
2000	121	44%	0.44	55 (1)

^{* 2000} data as of August 28.

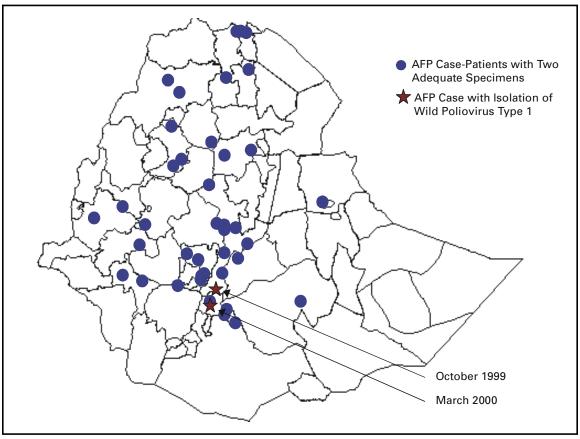
[†] Focal mass campaigns in high-risk areas over a short period (days to weeks) in which two doses of OPV are administered to all children, usually aged <5 years, regardless of vaccination history, with an interval of 4–6 weeks between doses.

March-April SNIDs; NIDs are scheduled for November-December 2000.

[†] Annual rate per 100,000 children aged <15 years.

Poliomyelitis Eradication — Continued

FIGURE 1. Distribution of wild poliovirus isolates and acute flaccid paralysis (AFP) case-patients with adequate stool specimens — Ethiopia, January–August 2000*



^{*} One person with a wild poliovirus isolate had onset of symptoms in October 1999.

Incidence of Polio

Until March 2000, AFP surveillance had not detected wild poliovirus in Ethiopia. In March 2000, the Johannesburg polio reference laboratory confirmed isolation of the first wild poliovirus type 1 (P1) in an AFP case from Oromia region with onset of paralysis in October 1999. A second isolate was reported in August 2000, with paralysis onset in March 2000. Neither of these virologically confirmed polio case-patients had received any doses of OPV. Genetic sequencing of polioviruses isolated from these cases revealed that they were indigenous to Ethiopia and unlike those polioviruses isolated in bordering countries.

Reported by: Ministry of Health, Addis Ababa, Ethiopia. Vaccine Preventable Diseases Unit, Regional Office for Africa, World Health Organization, Hrare, Zimbabwe. Dept of Vaccines and Biologicals, 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: Rapid progress has been achieved in implementing polio eradication strategies in Ethiopia, one of the major polio reservoirs in the Africa Region (3). Recent improvements in AFP surveillance led to the detection of indigenous wild poliovirus transmission. In addition, the number of children reached by NIDs and SNIDs has increased annually. The house-to-house approach in parts of the country during 1999

Poliomyelitis Eradication — Continued

and 2000 resulted in increased coverage of children aged <5 years, especially in hard-to-reach areas.

Routine vaccination activities have been constrained by challenges related to program management, training, health sector reform, cold chain maintenance, a largely rural population, and difficult terrain. Low routine OPV3 coverage, suboptimal AFP surveillance, and indigenous wild poliovirus transmission underscore the need for continued high quality NIDs and extra SNIDs. House-to-house vaccination activities should continue to reach children residing in hard-to-reach areas who have never been vaccinated. A WHO-United Nations Children's Fund (UNICEF) technical review identified the need for an increased number of mid-level surveillance officers to assist in training, clinician sensitization, and supervision of active AFP surveillance in remote areas. The placement of mid-level surveillance officers in other countries has led to rapid improvement in AFP surveillance indicators.

Polio eradication priorities in Ethiopia include 1) implementing high-quality NIDs (planned for November and December 2000 and tentatively planned for 2001), 2) ensuring high-quality house-to-house vaccination campaigns in hard-to-reach areas, 3) strengthening routine vaccination, 4) strengthening facility-based active AFP surveillance to reach certification standards (nonpolio AFP rate of ≥1.0) in all zones, 5) supporting the national laboratory to attain WHO accreditation, and 6) coordinating cross-border vaccination and surveillance activities to detect possible importation of wild poliovirus from neighboring countries. Meeting these challenges will require the continued support of polio eradication partners.[§]

References

- 1. World Health Assembly. Global eradication of poliomyelitis by the year 2000: resolution of the 41st World Health Assembly. Geneva, Switzerland: World Health Organization, 1988 (resolution WHA 41.28).
- Organization of African Unity. Yaounde declaration on polio eradication in Africa. In: Proceedings of the 32nd Ordinary Session of the Organization of African Unity meeting. Yaounde, Cameroon: Organization of African Unity, 1996; AHG/Declaration 1 (XXXII).
- 3. CDC. Progress toward poliomyelitis eradication—African Region, 1999–March 2000. MMWR 2000;49:445–9.

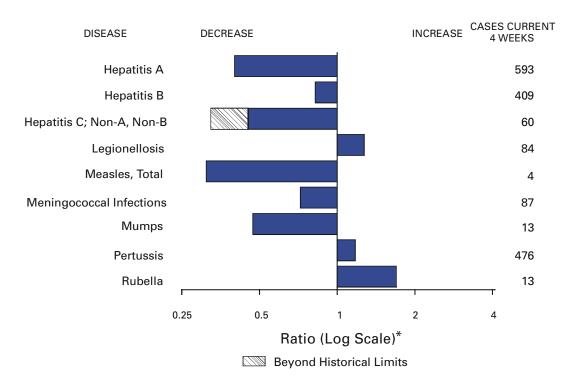
Notice to Readers

2001 Symposium on Statistical Methods: Issues Associated With Complicated Designs and Data Structures

The Eighth Biennial Symposium on Statistical Methods, co-sponsored by CDC, the Agency for Toxic Substances and Disease Registry, and the Atlanta Chapter of American Statistical Association, will be held January 23–24, 2001, in Atlanta, Georgia. A short course, "Introduction to Mixed Models for Longitudinal Studies," will be offered January 22, along with the symposium. Presentations will include modeling and analysis of complicated data structures, issues related to sparse and massive data sets, data collection and storage, and use of software for exploratory and automated techniques. Registration and additional information about content of the symposium is available from the World-Wide Web, http://www.cdc.gov/od/ads/sag.

Polio eradication efforts in Ethiopia are supported by WHO, UNICEF, Rotary International, U.S. Agency for International Development, the Japanese International Cooperation Agency, the United Kingdom Department of Foreign and International Development, and CDC.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending September 23, 2000, with historical data



^{*} 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 of provisional cases of selected notifiable diseases, United States, cumulative, week ending September 23, 2000 (38th Week)

	Cum. 2000		Cum. 2000
Anthrax Brucellosis* Cholera Congenital rubella syndrome Cyclosporiasis* Diphtheria Encephalitis: California serogroule eastern equine* St. Louis* western equine* Ehrlichiosis human granulocytichuman monocytic Hansen disease (leprosy)* Hantavirus pulmonary syndrome* Hemolytic uremic syndrome, postd	C (HGE)* 128 (HME)* 78 42 27	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	149 5 - 8 - 331 2,154 62 96 17 117 6 248

^{-:} 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 weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).

⁵ 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 August 27 2000.

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

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending September 23, 2000, and September 25, 1999 (38th Week)

								Escherichia	<i>coli</i> O157:H7	*
	All		Chlan	· <u> </u>	'''	poridiosis		rss 		LIS
Reporting Area	Cum. 2000⁵	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	26,662	32,187	456,722	477,627	1,571	1,864	3,262	2,608	2,143	2,054
NEW ENGLAND Maine N.H. Vt. Mass. R.I. Conn.	1,428 25 26 20 895 63 399	1,673 55 38 13 1,093 75 399	15,505 1,040 735 384 6,718 1,810 4,818	15,403 779 712 349 6,557 1,670 5,336	66 17 15 20 12 2	134 19 10 30 56 2 17	297 24 30 28 129 11 75	323 31 25 24 142 24 77	287 25 28 30 126 12 66	301 - 26 14 155 24 82
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	5,921 637 3,150 1,202 932	8,283 950 4,356 1,554 1,423	41,087 N 18,779 5,806 16,502	48,628 N 20,316 8,954 19,358	107 73 8 6 20	336 104 179 26 27	317 218 10 89 N	196 139 15 42 N	138 38 9 31 60	93 - 15 51 27
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	2,480 400 254 1,368 331 127	2,294 374 257 1,100 454 109	74,124 20,057 9,287 17,846 18,565 8,369	79,979 21,792 8,798 23,964 15,566 9,859	511 173 41 7 77 213	509 41 32 74 40 322	730 198 107 145 104 176	774 150 65 469 90 N	422 150 69 - 76 127	399 157 46 81 71 44
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr. Kans.	615 116 65 287 2 6 43 96	751 138 63 370 6 13 51	25,829 5,048 3,540 8,609 352 1,318 2,703 4,259	27,137 5,478 3,208 9,565 671 1,140 2,560 4,515	190 22 59 21 9 13 58 8	160 60 48 17 14 6 13	526 134 151 107 15 45 53 21	414 131 87 33 15 38 85 25	403 139 76 81 17 46 32 12	455 149 66 53 16 54 105
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fla.	7,336 131 845 500 483 43 454 553 873 3,454	8,754 112 973 318 600 46 631 758 1,235 4,081	91,902 2,101 9,654 2,321 10,792 1,379 16,512 7,866 18,510 22,767	100,718 1,968 9,481 N 10,618 1,313 16,378 13,423 24,480 23,057	299 5 10 9 14 3 19 - 114 125	267 - 11 7 19 2 11 - 111 106	272 1 24 1 53 13 61 17 38 64	236 6 19 57 10 51 18 26 49	170 1 1 U 44 7 53 13 26 25	149 3 2 U 49 5 47 14 1 28
E.S. CENTRAL Ky. Tenn. Ala. Miss.	1,325 147 555 340 283	1,508 220 563 398 327	34,493 5,770 10,572 11,250 6,901	34,048 5,533 10,434 9,396 8,685	38 5 10 12 11	24 5 9 8 2	104 32 47 8 17	104 30 46 20 8	78 25 38 7 8	81 22 35 20 4
W.S. CENTRAL Ark. La. Okla. Tex.	2,716 127 461 219 1,909	3,452 131 616 94 2,611	70,169 3,981 13,353 5,997 46,838	66,790 4,360 12,016 5,905 44,509	62 9 8 10 35	70 1 22 7 40	146 55 5 13 73	82 11 11 18 42	186 30 40 11 105	107 10 12 18 67
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	1,034 11 16 7 238 107 339 101 215	1,242 8 19 10 235 67 605 116 182	27,143 960 1,334 546 7,948 3,286 8,771 1,558 2,740	24,822 1,099 1,267 555 5,128 3,739 9,129 1,580 2,325	116 10 8 5 55 13 11 11	76 10 7 1 11 31 10 N 6	317 27 48 12 122 18 37 43 10	210 14 26 12 83 9 24 28 14	177 - - 2 80 14 27 54	171 21 13 62 5 16 39
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	3,807 347 112 3,247 15 86	4,230 245 137 3,774 13 61	76,470 9,074 3,583 60,010 1,749 2,054	80,102 8,509 4,467 63,376 1,407 2,343	182 N 15 167 -	288 N 85 203	553 174 126 215 24 14	269 111 53 93 1	282 97 99 75 1	298 137 61 90 1
Guam P.R. V.I. Amer. Samoa C.N.M.I.	14 762 2 5 - -	11 937 25 - -	2,805 U U U	355 U U U U	- U U U	- U U	N 6 U U U	N 5 U U	U U U U	U U U

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

*Individual cases can be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

† Chlamydia refers to genital infections caused by *C. trachomatis*. Totals reported to the Division of STD Prevention, NCHSTP.

† Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update August 27, 2000.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending September 23, 2000, and September 25, 1999 (38th Week)

	-	rrhea	Нер	atitis C; A, Non-B		nellosis	ı	_yme isease
Reporting Area	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	238,560	260,041	2,235	2,013	655	691	8,488	11,162
NEW ENGLAND Maine N.H. Vt. Mass. R.I. Conn.	4,383 61 73 48 1,855 450 1,896	4,769 53 86 36 1,825 419 2,350	13 2 - 3 3 5	13 2 - 5 3 3	27 2 2 4 9 4 6	58 3 5 11 23 6 10	2,165 - 50 18 767 310 1,020	3,433 22 8 15 654 350 2,384
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	25,132 5,103 8,022 4,318 7,689	29,018 4,781 9,340 5,654 9,243	431 52 - 354 25	94 46 - - 48	134 56 - 9 69	157 41 24 12 80	4,829 2,661 10 1,189 969	5,778 2,821 128 1,393 1,436
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	44,322 11,906 4,369 11,505 13,096 3,446	50,248 13,140 4,704 16,840 11,245 4,319	171 9 1 10 151	712 2 1 40 653 16	180 83 32 9 34 22	200 56 29 27 52 36	292 71 29 11 - 181	534 37 17 17 11 452
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak.	11,405 2,024 781 5,428 15 220	11,816 2,061 769 5,729 66 130	461 5 1 440 -	161 6 - 153 -	48 3 12 25 - 2	38 6 11 14 - 2	227 150 21 39 1	219 119 21 55 1
Nebr. Kans.	1,056 1,881	1,122 1,939	6 9	2	3 3	5 -	4 12	10 13
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fla.	68,288 1,226 6,704 1,926 6,676 451 13,502 10,051 11,900 15,852	75,525 1,229 7,045 2,745 6,885 427 14,445 9,927 16,406 16,416	104 - 18 3 3 13 13 1 1 50	136 19 1 10 16 31 21 1	142 8 48 3 25 N 12 4 6 36	96 11 20 3 24 N 13 7	789 135 435 4 114 24 39 4	959 83 687 3 94 14 61 4
E.S. CENTRAL Ky. Tenn. Ala. Miss.	25,204 2,536 8,430 8,718 5,520	27,115 2,489 8,362 8,377 7,887	343 30 74 7 232	215 15 78 1 121	26 14 10 2	39 14 20 3 2	39 8 25 6	79 15 44 17 3
W.S. CENTRAL Ark. La. Okla. Tex.	36,696 2,226 9,838 2,636 21,996	38,253 2,240 9,591 2,917 23,505	299 9 185 7 98	379 21 243 15 100	18 - 9 2 7	9 1 4 3 1	14 4 2 - 8	40 4 7 7 22
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	7,278 28 64 38 2,284 727 2,913 165 1,059	7,038 33 61 22 1,777 744 3,292 156 953	273 4 3 207 20 12 14 1	144 5 6 37 28 26 28 6 8	30 1 4 2 11 1 7 4	35 - 1 - 9 1 5 13 6	24 - 2 9 9 - - 1 3	12 - 2 3 2 1 - 2 2
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	15,852 1,613 491 13,234 240 274	16,259 1,460 643 13,597 227 332	140 24 24 90 - 2	159 13 12 134 -	50 15 N 35 -	59 11 N 47 1	109 7 8 92 2 N	108 6 11 91 - N
Guam P.R. V.I. Amer. Samoa C.N.M.I.	496 U U U	41 256 U U U	2 U U U	1 U U U	1 U U U	- U U U	N U U U	N 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 September 23, 2000, and September 25, 1999 (38th Week)

- 1100K	o onanig	Сортонів	10. 20, 20	Jou, and 3		Salmon		OK,
		laria		es, Animal		TSS		HLIS
Reporting Area	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	828	1,049	4,276	4,900	24,982	27,290	21,085	24,863
NEW ENGLAND Maine N.H. Vt. Mass. R.I. Conn.	37 5 1 2 10 6 13	47 3 2 4 14 4 20	571 101 9 47 207 49 158	655 121 40 81 153 73 187	1,645 99 104 95 936 107 304	1,660 107 104 73 913 80 383	1,618 77 97 102 891 114 337	1,724 87 109 64 934 130 400
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	148 53 50 26 19	299 52 173 43 31	798 548 U 142 108	940 665 U 142 133	2,762 884 665 568 645	3,630 932 1,099 742 857	3,143 883 723 393 1,144	3,893 1,012 1,109 858 914
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	96 16 4 42 24 10	125 18 16 53 31 7	131 45 - 20 58 8	140 31 12 9 69 19	3,678 1,030 473 1,028 666 481	3,981 922 382 1,261 744 672	2,261 803 427 1 720 310	3,533 830 361 1,197 736 409
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr. Kans.	37 13 3 7 2 - 6 6	48 21 12 11 - - 4	426 70 64 38 100 75 1 78	588 81 124 24 119 151 3 86	1,766 401 273 534 48 75 167 268	1,702 439 188 548 38 73 152 264	1,748 498 185 655 61 84 44 221	1,910 579 174 687 48 100 132 190
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fla.	233 4 74 14 44 2 23 2 16 54	262 1 75 15 55 1 23 11 21 60	1,706 39 312 - 404 90 409 113 222 117	1,560 34 298 406 89 331 117 145	5,598 79 629 42 749 130 766 510 1,050 1,643	5,925 110 628 61 985 127 903 428 929 1,754	3,681 97 555 U 615 114 741 411 1,052 96	4,835 123 667 U 835 114 1,034 363 1,229 470
E.S. CENTRAL Ky. Tenn. Ala. Miss.	36 13 9 13 1	20 7 7 5 1	150 17 78 55	206 31 75 100	1,601 286 424 474 417	1,492 307 418 422 345	1,144 191 482 401 70	1,078 206 443 354 75
W.S. CENTRAL Ark. La. Okla. Tex.	12 3 2 7	14 2 10 2	68 20 - 48 -	362 14 - 79 269	2,026 498 120 298 1,110	2,630 428 569 324 1,309	2,757 329 436 193 1,799	2,024 128 455 275 1,166
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	39 1 3 - 21 - 6 4 4	36 4 3 1 15 2 4 4 3	195 55 9 43 - 18 58 10 2	165 50 - 36 1 8 59 6 5	2,130 70 92 50 574 179 577 382 206	2,268 47 71 46 599 306 671 381 147	1,611 - - 14 534 167 538 358	2,001 1 73 45 578 242 604 409 49
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	190 23 33 129	198 18 16 152 1	231 - 7 203 21	284 - 3 274 - 7	3,776 407 237 2,911 45 176	4,002 462 344 2,885 36 275	3,122 376 285 2,271 23 167	3,865 659 381 2,579 21 225
Guam P.R. V.I. Amer. Samoa C.N.M.I.	4 U U U	- U U U	ຣ ບ ບ ບ	56 U U U	423 U U U	31 403 U U U	U U U U	U U U U

N: Not notifiable. U: Unavailable. -: No reported cases.

* Individual cases can 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 September 23, 2000, and September 25, 1999 (38th Week)

<u>week</u>	s ending S			<u>00, and So</u>	<u>eptembe</u>	<u>r 25, 1999</u>	(38th Week)			
	NET:	Shigel SS		PHLIS		philis k Secondary)	Tube	erculosis		
	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.		
Reporting Area UNITED STATES	2000 13,925	1999 11,542	2000 7,307	1999 6,961	2000 4,216	1999 4,919	2000 8,814	1999 11,380		
NEW ENGLAND Maine N.H. Vt. Mass. R.I. Conn.	289 10 4 4 205 22	600 4 13 5 509 18 51	268 12 7 - 176 28 45	568 - 14 3 482 17 52	58 1 1 39 4	45 - 1 3 24 2 15	296 9 14 4 176 27 66	309 13 10 2 175 30 79		
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	1,508 597 583 204 124	759 211 253 174 121	929 177 426 135 191	546 54 180 170 142	201 10 96 35 60	220 17 92 52 59	1,657 213 901 390 153	1,895 233 979 393 290		
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	3,013 277 1,267 756 531 182	2,133 333 202 859 313 426	874 201 126 2 500 45	1,163 111 70 679 244 59	796 59 288 195 218 36	872 65 301 320 152 34	903 205 68 440 127 63	1,137 188 96 550 229 74		
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr. Kans.	1,681 508 393 513 14 5 96	914 182 27 586 2 11 64 42	1,328 614 217 373 30 3 9	614 195 29 296 2 6 52	44 7 10 22 - - 2 3	106 9 9 72 - 6 10	331 111 27 132 2 14 17 28	364 140 33 132 6 12 15		
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fla.	2,072 15 157 57 338 4 152 96 188 1,065	1,773 12 120 44 94 7 161 95 172 1,068	678 16 82 U 241 3 129 74 71 62	411 7 39 U 48 3 71 50 68 125	1,418 8 211 38 95 2 382 143 273 266	1,597 6 295 37 117 3 376 196 313 254	1,837 188 21 191 22 228 104 416 667	2,330 21 197 37 221 34 333 201 450 836		
E.S. CENTRAL Ky. Tenn. Ala. Miss.	741 283 266 48 144	952 200 576 93 83	359 53 269 34 3	574 133 380 52 9	636 62 385 92 97	865 78 484 174 129	563 83 250 230	771 131 268 231 141		
W.S. CENTRAL Ark. La. Okla. Tex.	1,474 161 80 87 1,146	1,903 63 153 446 1,241	1,993 44 131 31 1,787	814 23 84 138 569	600 72 169 96 263	782 47 228 150 357	845 139 73 99 534	1,556 129 119 131 1,177		
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	870 7 42 5 187 104 355 64 106	735 7 16 3 129 91 372 47 70	472 - - 2 124 66 212 68	500 - 9 1 101 70 263 50 6	167 1 1 7 19 133 1 5	175 1 1 2 8 157 2 4	360 10 9 2 52 29 155 32 71	386 10 12 3 52 47 165 29 68		
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	2,277 357 133 1,747 8 32	1,773 76 63 1,609	406 300 79 - 3 24	1,771 80 62 1,604 - 25	296 50 5 240 - 1	257 48 5 201 1 2	2,022 171 25 1,660 70 96	2,632 175 81 2,208 40 128		
Guam P.R. V.I. Amer. Samoa C.N.M.I.	23 U U U	11 117 U U U	U U U U	UUUUU	118 U U U	124 U U U	- U U U	52 151 U U U		

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

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending September 23, 2000, and September 25, 1999 (38th Week)

		lepatitis (V				/VCCK/	Meas	les (Rubec	ola)			
		sive	Α		В		Indige		Impo	rted*	Tota	
Reporting Area	Cum. 2000†	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	2000	Cum. 2000	2000	Cum. 2000	Cum. 2000	Cum. 1999
UNITED STATES	847	886	8,210	12,011	4,888	5,127	-	48	-	18	66	70
NEW ENGLAND	68	67	245	226	76	116	-	2	-	4	6	11
Maine N.H.	1 12	5 13	14 18	7 12	5 14	1 12	-	2	-	1	3	- 1
Vt. Mass.	6 33	5 28	8 98	10 80	6 9	2 39	-	-	-	3	3	- 8
R.I. Conn.	4 12	1 15	19 88	14 103	14 28	26 36	-	-	-	-	-	2
MID. ATLANTIC	139	153	779	854	666	645		14		5	19	5
Upstate N.Y.	74	62	157	187	100	141	-	9	-	-	9	2
N.Y. City N.J.	28 28	47 39	238 118	275 102	314 83	195 100	-	5 -	-	4	9	3
Pa.	9	5	266	290	169	209	U	-	U	1	1	-
E.N. CENTRAL Ohio	117 44	147 50	992 211	2,264 504	520 86	534 74	-	8 2	-	-	8 2	2
Ind.	26 40	20 60	74 348	84 570	39 91	34 44	-	- 4	-	-	- 4	1
Mich.	7	13	346	1,048	303	355	-	2	-	-	2	1
Wis. W.N. CENTRAL	- 51	4 57	13 672	58 581	1 549	27 202	-	2	-	- 1	3	-
Minn.	29	36	170	58	30	3 8	-	-	-	1	1	-
lowa Mo.	13	2 6	59 325	108 350	26 436	31 110	-	2	-	-	2	-
N. Dak. S. Dak.	1	1 2	3	2 8	2	1	-	-	-	-	-	-
Nebr.	3	4	28	40	33	15	-	-	-	-	-	-
Kans. S. ATLANTIC	4 220	6 195	86 1,059	15 1,391	21 908	7 855	-	3	-	-	3	- 5
Del.	-	-	· -	2	-	1	-	-	-	-	-	-
Md. D.C.	59 -	51 4	176 20	233 54	89 27	118 20	-	-	-	-	-	-
Va. W. Va.	33 7	15 6	115 51	119 31	119 10	69 22	-	2	-	-	2	3
N.C.	19	28 5	114	118	182	185	-	-	-	-	-	-
S.C. Ga.	11 54	53	45 190	30 360	13 155	57 113	-	-	-	-	-	-
Fla.	37	33	348	444	313	270	U	1	U	-	1	2
E.S. CENTRAL Ky.	39 12	52 6	305 36	301 56	349 57	360 33	-	-	-	-	-	2 2
Tenn. Ala.	18 8	28 15	111 46	123 43	167 44	178 72	-	-	-	-	-	-
Miss.	1	3	112	79	81	77	-	-	-	-	-	-
W.S. CENTRAL Ark.	50 2	52 2	1,301 104	2,407 36	548 70	897 57	-	-	-	-	-	9 2
La.	8	12	31	179	52	143	-	-	-	-	-	-
Okla. Tex.	38 2	34 4	212 954	398 1,794	116 310	115 582	-	-	-	-	-	7
MOUNTAIN	78	74	735	961	384	446	-	11	-	1	12	1
Mont. Idaho	1 3	2 1	5 19	17 33	7 7	17 23	-	-	-	-	-	-
Wyo. Colo.	1 11	1 12	39 156	7 178	24 68	12 76	U	- 1	U	- 1	2	-
N. Mex.	17	18	60	40	76	142	-	-	-	-	-	-
Ariz. Utah	37 7	32 5	366 41	538 38	150 17	110 26	-	3	-	-	3	1 -
Nev.	1	3	49	110	35	40	-	7	-	-	7	-
PACIFIC Wash.	85 5	89 3	2,122 216	3,026 240	888 80	1,072 53	-	8 2	-	7 1	15 3	35 5
Oreg. Calif.	23 28	30 43	144 1,740	195 2,564	80 710	83 910	-	- 5	-	3	8	12 17
Alaska	6	5	. 9	9	8	14	-	1	-	-	1	-
Hawaii	23	8	13	18	10	12 2	- U	-	- U	3	3	1 1
Guam P.R.	.3	.2	188	1 233	185	170	-	-	-	- , <u>-</u>	.5	-
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	U U
C.N.M.I.	Ü	U Ingveileble	U	U No ron	Ü	Ü	Ū	Ü	Ū	Ü	Ū	Ü

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

†Of 172 cases among children aged <5 years, serotype was reported for 74 and of those, 20 were type b.

TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending September 23, 2000, and September 25, 1999 (38th Week)

and September 25, 1999 (38th Week)												
		jococcal ease		Mumps			Pertussis		Rubella			
Reporting Area	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	
UNITED STATES	1,548	1,825	5	265	271	140	4,292	4,529	-	123	233	
NEW ENGLAND	96	84	-	4	6	4	959	539	-	12	7	
Maine N.H.	9 11	5 11	-	-	- 1	1 -	33 83	- 78	-	2	-	
Vt. Mass.	2 55	4 48	-	- 1	1 4	1 2	179 611	50 372	-	- 8	- 7	
R.I.	8	4 12	-	1	-	-	14	24	-	1	-	
Conn. MID. ATLANTIC	11 149	169	-	2 19	35	- 10	39 390	15 739	-	1 9	30	
Upstate N.Y.	50	47	-	8	7	10	186	580	-	2	18	
N.Y. City N.J.	30 33	49 39	-	4 3	10 1	-	44 34	42 20	-	7 -	5 4	
Pa.	36	34	U	4	17	U	126	97	U	-	3	
E.N. CENTRAL Ohio	264 69	330 114	-	27 7	36 11	16 10	504 265	396 156	-	1	2	
Ind.	37 64	47 86	-	1 6	4 9	5 1	75 54	54 67	-	- 1	1 1	
III. Mich.	74	50	-	13	8	-	55	41	-	-	-	
Wis.	20	33	-	-	4	-	55	78	-	-	-	
W.N. CENTRAL Minn.	136 17	178 39	1 -	18 -	10 1	27 17	367 217	298 133	-	1 -	126 5	
lowa Mo.	25 73	32 64	1 -	7 5	5 1	2	40 49	46 57	-	-	30 2	
N. Dak.	2	3	-	-	-	-	3	4	-	-	-	
S. Dak. Nebr.	5 7	11 9	-	3	-	8	3 24	5 4	-	1	89	
Kans.	7	20	-	3	3	-	31	49	-	-	-	
S. ATLANTIC Del.	251 -	306 8	1 -	40	40 -	5 -	349 8	324 4	-	73 -	35	
Md. D.C.	24	44 3	1	10	3 2	1	81 3	102	-	-	1	
Va.	35	40	-	8	8	4	66	17	-	-	-	
W. Va. N.C.	11 32	5 35	-	- 5	8	-	1 77	2 86	-	64	34	
S.C. Ga.	19 38	38 51	-	10 2	4 4	-	23 34	15 33	-	7 -	-	
Fla.	92	82	U	5	11	U	56	65	U	2	-	
E.S. CENTRAL Ky.	107 24	128 26	-	7 1	11	1	86 41	78 22	-	5 1	2	
Tenn.	44	53	-	2	-	1	26	34	-	1	-	
Ala. Miss.	29 10	30 19	-	2 2	8 3	-	18 1	19 3	-	3 -	2 -	
W.S. CENTRAL	105	183	-	23	36	29	256	166	-	4	11	
Ark. La.	12 29	31 55	-	2	10	1 -	31 3	19 9	-	-	3	
Okla. Tex.	23 41	27 70	-	- 18	1 25	28	14 208	32 106	-	- 4	1 7	
MOUNTAIN	109	110	1	19	14	33	584	544	-	2	16	
Mont. Idaho	4 6	2 8	-	1	- 1	1	33 52	2 131	-	-	-	
Wyo.	-	4	Ū	2	-	U	6	2	Ū	-	-	
Colo. N. Mex.	30 7	30 13	-	1 1	5 N	18 1	321 <i>7</i> 7	204 77	-	1 -	1 -	
Ariz. Utah	52 7	33 13	-	4 4	3	11 1	69 16	69 54	-	1	13 1	
Nev.	3	7	1	6	5	i	10	5	-	-	i	
PACIFIC Wash.	331 43	337 56	2	108 10	83 2	15 14	797 286	1,445 570	-	16 7	4	
Oreg.	55	58	N	N	N	1	101	40	-	-	-	
Calif. Alaska	218 7	211 6	-	77 7	68 1	-	362 19	799 4	-	9	4	
Hawaii	8	6	-	14	12	-	29	32	-	-	-	
Guam P.R.	- 8	1 10	U -	-	1 -	U 1	6	2 21	U -	-	-	
V.I. Amer. Samoa	Ŭ U	Ŭ U	U U	U U	U U	Ú U	Ŭ	Ü	U U	U U	U U	
C.N.M.I.	Ü	Ü	Ü	Ü	Ü	Ŭ	Ü	Ü	Ü	Ü	Ü	

N: Not notifiable.

U: Unavailable.

-: No reported cases.

TABLE IV. Deaths in 122 U.S. cities,* week ending September 23, 2000 (38th Week)

	,	All Cau	ıses, By	Age (Y			P&I [†]	2000 (30(11 4)		All Cau	ıses, By	Age (Y	ears)		 P&I [†]
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, Ma New Haven, Conn Providence, R.I. Somerville, Mass. Springfield, Mass Waterbury, Conn. Worcester, Mass. MID. ATLANTIC Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J.	. 10 25 55 14 17 sss. 23 33 . 33 . 33 8 2,068 53 33 111 31	379 94 27 6 20 33 9 15 19 24 31 5 26 44 1,439 37 20 80 80 17	4 16 3 2 2 7 7 7 2 4 6 11 400 14 1 27 6 3	38 18 3 2 1 6 2 - 2 - 1 1 1 1 1 1 2 2 2 6 1 1 1 1 1 1 1 1 1 1	5 1 1 1 - - - 1 1 1 - - 38 - 2 1 1	11 5 - - - 2 2 2 50 1 - 1	55 10 3 7 2 2 1 3 6 5 2 12 10 8 2 11 1 1 1 1	S. ATLANTIC Atlanta, Ga. Baltimore, Md. Charlotte, N.C. Jacksonville, Fla Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, F Tampa, Fla. Washington, D.G Wilmington, D.G E.S. CENTRAL Birmingham, Al. Chattanooga, Te Knoxville, Tenn. Lexington, Ky. Memphis, Tenn. Mobile, Ala. Montgomery, A	104 66 66 54 Fla. 55 C. 100 I. 6 911 a. 167 enn. 62 67 226 67 226	681 U 105 689 711 45 342 411 1276 621 116 397 41 151 639 43	205 U 35 199 27 17 11 15 11 8 324 2 187 41 15 18 10 51 6	95 U 20 8 16 13 6 8 2 11 11 - 56 5 5 4 8 12 6 3	26 U 99 2 4 2 - 2 2 2 3 3 - 29 4 2 2 4 9 9 2 -	31 32 4 1 3 6 1 2 3 6 - 1 8 1 1 1 1 4 3 3 2 2	60 U 12 6 18 8 2 4 - 1 8 1 - 65 16 2 3 6 21 5 3
Erie, Pa.§ Jersey City, N.J. New York City, N.Y. Newark, N.J. Paterson, N.J. Philadelphia, Pa. Pittsburgh, Pa.§ Reading, Pa. Rochester, N.Y. Schenectady, N.Y. Scranton, Pa.§ Syracuse, N.Y. Trenton, N.J. Utica, N.Y. Yonkers, N.Y.	45 26 243 64 28 123	21 28 729 18 16 178 42 22 96 14 24 51 13	7 5 214 12 6 45 13 4 19 3 6 10 4 1	2 5 79 11 13 5 2 3 1 2 3 2	1 19 2 3 5 2 - 2 - -	2 30 2 2 2 2 3 - 6	1 35 1 5 14 1 2 10 3 10 1 5 U	Nashville, Tenn. W.S. CENTRAL Austin, Tex. Baton Rouge, La Corpus Christi, Dallas, Tex. El Paso, Tex. Ft. Worth, Tex. Houston, Tex. Little Rock, Ark. New Orleans, La San Antonio, Te Shreveport, La. Tulsa, Okla.	Tex. 53 216 71 94 444 63 . 46	99 976 55 37 34 135 54 66 255 46 29 154 34 77	30 301 10 13 15 41 14 19 89 10 7 51 9 23	13 135 10 8 1 20 1 5 56 6 4 14 3 7	6 71 5 3 16 1 1 33 1 4 2 3 2	3 31 2 - 4 1 3 11 - 7	9 97 5 3 2 20 - 8 29 4 - 14 3 9
E.N. CENTRAL Akron, Ohio Canton, Ohio Chicago, III. Cincinnati, Ohio Cleveland, Ohio Columbus, Ohio Dayton, Ohio Detroit, Mich. Evansville, Ind. Fort Wayne, Ind. Grand Rapids, Mil Indianapolis, Ind. Alill. Milwaukee, Wis. Peoria, III. South Bend, Ind. Toledo, Ohio Youngstown, Ohi W.N. CENTRAL Des Moines, Iowa Duluth, Minn. Kansas City, Kans Kansas City, Kans Kansas City, Mo. Lincoln, Nebr. Minneapolis, Min Omaha, Nebr. St. Louis, Mo. St. Paul, Minn. Wichita, Kans.	189 51 121 57 52 76 88 0 46 737 1 31 27 . 30 111 29	1,360 33 223 223 89 135 62 105 27 46 9 61 125 38 86 48 38 19 19 19 77 74 62 85 74 62 85 74 62 85 74 62 85 86 86 86 86 86 86 86 86 86 86 86 86 86	9 38 8 22 5 11 13 18 5 118 7 5 5 16 2 14 18 27 14	149 1 32 7 14 4 7 72 1 2 4 66 14 1 9 1 1 5 3 2 47 3 2 3 8 2 10 3 8 5 3	59 2 1 11 2 4 3 10 3 1 2 2 7 3 3 2 1 1 1 1 2 7 7 3 3 2 1 1 1 1 1 2 7 1 1 1 1 1 1 1 1 1 1 2 1 1 1 1	51 4 2 6 6 4 3 5 2 7 - 3 1 3 5 1 1 1 1 1 1 1 1 1 1 1 2 1 2 1 2 1 2 1	142 2 3 3 3 9 9 3 14 4 22 - 2 2 7 7 15 1 1 1 4 - 2 2 - 43 2 - 2 8 1 9 9 13 - 6 2	MOUNTAIN Albuquerque, N Boise, Idaho Colo. Springs, C Denver, Colo. Las Vegas, Nev. Ogden, Utah Phoenix, Ariz. Pueblo, Colo. Salt Lake City, U Tucson, Ariz. PACIFIC Berkeley, Calif. Fresno, Calif. Glendale, Calif. Honolulu, Hawa Long Beach, Cal Los Angeles, Cal Pasadena, Calif. Portland, Oreg. Sacramento, Cal San Diego, Calif. Santa Cruz, Calif. Santa Cruz, Calif. Seattle, Wash. Spokane, Wash. Tacoma, Wash. TOTAL	38 olo. 39 110 243 36 162 29 tah 108 1,819 12 89 25 ii 84 if. 61 lif. 527 30 132 lif. 202 alif. 199 f. 34 135	733 105 34 29 60 165 31 103 20 61 119 1,282 5 61 160 37 376 21 146 100 154 29 90 17 77 7,999	217 31 3 6 31 54 4 32 5 25 25 341 4 17 6 13 18 95 7 29 38 26 4 31 10 17 2,270	83 12 - 3 11 16 - 16 3 8 14 109 2 27 1 10 7 10 U 13 1 1 8 5 3 3 853	30 11 1 4 2 1 6 1 4 - 2 3 19 - 3 6 7 7 0 2 - 6 1 5 5 3 3 6 3 6 6 1 5 5 3 6 6 1 5 5 3 6 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7	24 3 1 4 6 5 5 2 25 - 1 1 10 1 3 3 4 4 2 2 0 4 - - - - - - - - - - - - - - - - - -	76 6 4 3 9 19 4 13 2 9 7 149 6 4 5 37 4 6 19 19 20 3 11 8 7 7 7 9 7

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. 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. ¹Pneumonia and influenza. ³Because 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. ¹Total includes unknown ages.

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 Gerald Jones David Nitschke Scott Noldy Carol A. Worsham

CDC Operations Team

Carol M. Knowles Deborah A. Adams Willie J. Anderson Patsy A. Hall Suzette A. Park Felicia J. Perry Pearl Sharp

Informatics

T. Demetri Vacalis, Ph.D.

Erica R. Shaver Michele D. Renshaw

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/mmwr or from CDC's file transfer protocol server at http://ftp.cdc.gov/pub/Publications/mmwr. 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.

Deputy Director for Science and Public Health, Centers for Disease Control and Prevention David W. Fleming, M.D. Acting Director, Epidemiology Program Office Barbara R. Holloway, M.P.H.

Editor, MMWR Series John W. Ward, M.D.

Acting Managing Editor, MMWR (Weekly) Teresa F. Rutledge Writers-Editors, MMWR (Weekly)

Jill Crane David C. Johnson

Desktop Publishing Lynda G. Cupell Morie M. Higgins

☆U.S. Government Printing Office: 2000-533-206/28041 Region IV