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Vitamin A Deficiency Among Children — Federated States of Micronesia, 2000

Vitamin A, a fat-soluble, heat-stable nutrient (retinol) derived from animal sources and certain fruits and vegetables, forms the basic component of retinal pigments and plays a vital role in optimal health, growth, and development. Vitamin A deficiency (VAD) (serum retinol $\leq 20 \,\mu \text{g/dL}$ [$\leq 0.7 \,\mu \text{mol/L}$] for subclinical VAD) can substantially increase the risk for childhood mortality from infectious and noninfectious causes (1-3). VAD impairs the mobilization and transport of iron and is usually associated with anemia and reduced growth (4,5). VAD is a major public health problem in parts of Africa, Asia, Latin America, and the Western Pacific (1,6). In Chuuk and Pohnpei, two of the four Federated States of Micronesia (FSM) (2000 population: 107,008), nutrition surveys during the early 1990s documented VAD prevalences among the highest in the world (CDC, unpublished data, 1991; U.S. Public Health Service, unpublished data, 1994). In response to these findings, FSM health authorities, with support of the United Nations Children's Fund (UNICEF), began distributing vitamin A supplements in 1993 and 1998 in Chuuk and Pohnpei, respectively. In November 1999, FSM requested assistance from CDC in VAD assessment surveys of children in Kosrae and Yap, the other two FSM states. This report summarizes levels of serum retinol and prevalence of VAD and other indicators of nutritional status among children aged 24–59 months in Kosrae and Yap. The findings indicated low serum retinol levels and high VAD prevalences but no substantial stunting or wasting. A comprehensive, long-term national strategy is needed in FSM to promote sustained improvement in vitamin A status.

FSM is an island nation in the western Pacific Ocean. Kosrae state is a single island divided into 21 enumeration districts. Yap comprises four large islands and 134 small islands, primarily atolls, and is divided into 93 villages. For logistic reasons, only the three large islands connected by bridges (Yap proper) were included in the survey. These islands represent approximately 62% of the Yap population.

During January–February 2000, FSM health authorities, UNICEF, and CDC surveyed children aged 24–59 months and their mothers or reproductive-aged female caregivers in Kosrae and Yap. A separate cluster survey was performed in each state. The sample size for each state was calculated to yield a prevalence estimate with 5% error assuming 50% VAD prevalence. Because of uneven village sizes (range: 157–537 residents per village in Kosrae and one–580 in Yap), clusters were selected using the proportionate-to-population size sampling method. Investigators selected 13 villages in Kosrae and 29 villages in Yap. In each village, all children aged 24–59 months identified from a comprehensive list of vaccination records were eligible for the survey. Children were

Vitamin A Deficiency — Continued

excluded who had moved into the village during the 6 months preceding the survey or had experienced fever or diarrhea during the preceding 24 hours or cough for \geq 4 weeks. If more than one eligible child lived in a household, investigators randomly selected one for the survey.

Caregivers were asked about demographics, feeding history, availability of home garden, number of vitamin A-rich plants grown, and vitamin/mineral supplement intake for each child. Caregiver information included demographics, reproductive history, dietary and nutritional knowledge of vitamin A and iron, and vitamin/mineral supplement intake.

Child height and weight were measured to calculate degree of stunting (height-forage Z-score, ≤2 standard deviations [SD] below the reference median) and wasting (weight-for-height Z-score, ≤2 SD below the reference median) based on World Health Organization (WHO)/CDC references. Blood was collected by venipuncture to assess serum retinol and hemoglobin. Hemoglobin levels were measured by the cyanmethemoglobin method using a portable HemoCue™* instrument. Children with hemoglobin <11.0 g/dL were considered anemic. Serum samples for retinol were analyzed at CDC using high-performance liquid chromatography under a strict quality-control protocol.

For each state's analysis, the survey sampling design was taken into account and the data were weighted to represent children aged 24–59 months. For Kosrae and Yap combined, the data were analyzed as a stratified cluster survey and weighted to represent the combined population of children aged 24–59 months. Because of the large proportion of children surveyed in each state (47.3% for Kosrae and 39.8% for Yap), the finite population correction was used to reduce the confidence interval.

A total of 270 children in Kosrae and 228 children in Yap was selected for the survey. Blood could not be collected from 13 children, leaving 267 children from Kosrae and 218 children from Yap included in these analyses. Only 485 children with retinol measurements were included in this report. Approximately half of these children were male, and they were distributed equally among ages 2, 3, and 4 years.

The mean serum retinol of all children surveyed was 20.4 μ g/dL (18.0 μ g/dL in Kosrae and 22.9 μ g/dL in Yap) (Table 1). The prevalence of VAD among all children was 48.8% and was higher in Kosrae (63.3%) than Yap (33.8%). The prevalences of stunting (16.6%), wasting (3.8%), and anemia (11.2%) did not differ between the two states.

VAD risk factors among children for both states combined included residence in Kosrae, male sex, household size (>8 persons), maternal income (no income), education (<8 years), maternal VAD, type of first solid food (local food) given to the child, anemia in children, and vitamin A-rich plants (<2) grown in the garden. However, the specific risk factors for VAD varied between the two states. In Kosrae, male sex, family income (no income), and type of first solid food (local food) were associated with VAD. In Yap, the significant risk factors were outer island ethnicity, maternal education (<8 years), and vitamin A-rich plants (<2) grown in the garden. When stratified by each risk factor, all subgroups of children from Kosrae had VAD prevalence >37%, and on Yap all subgroups had VAD prevalence >17%.

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^{*}Use of trade names and commercial sources is for identification only and does not imply endorsement by CDC or the U.S. Department of Health and Human Services.

Vitamin A Deficiency — Continued

TABLE 1. Estimated prevalence* of children aged 24–59 months with vitamin A deficiency (VAD), stunting, wasting, and anemia and mean serum retinol — Kosrae and Yap, Federated States of Micronesia, January–February 2000

	-	(osrae n=267)	(Yap n=218)	Total (n=485)		
Condition	%	(95% CI†)	%	(95% CI)	%	(95% CI)	
VAD§	63.3	(57.3-69.4)	33.8	(27.8-39.8)	48.8	(44.5–53.1)	
Stunting [¶]	17.1	(13.1-21.2)	16.2	(10.9-21.5)	16.6	(13.3-19.9)	
Wasting**	4.8	(1.0- 8.7)	2.8	(0.0- 6.9)	3.8	(1.0- 6.7)	
Anemia ^{††}	12.6	(8.3-16.9)	9.8	(5.8–13.8)	11.2	(8.2-14.2)	
Mean serum							
retinol (µg/dL)	18.0	(17.1–18.9)	22.9	(21.9– 23.9)	20.4	(19.8–21.1)	

^{*} Computed to give each cluster an equal weight in the estimation of prevalence.

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Editorial Note: The findings in this report indicate that VAD prevalence in virtually all subgroups of children examined in this survey was $\geq 20\%$. WHO considers VAD prevalence $\geq 20\%$ among children aged 6–71 months a severe public health problem (7). Compared with a healthy U.S. population (8), the serum retinol distributions among children from Kosrae and Yap are substantially lower (Figure 1), underscoring the potential risk for increased morbidity and mortality.

Children with VAD often are anemic, stunted, and occasionally wasted. However, in the population surveyed for this report, these indicators were not evident. The findings indicate relatively good nutritional status among these preschool-aged children. According to a proposed WHO classification for stunting and wasting among children aged <5 years, children from Kosrae and Yap have a low prevalence (<20%) of stunting and an acceptable prevalence (<5%) of wasting (9). These children also have lower prevalences of anemia than other Asia Pacific regions (10). This may be, in part, because of the absence of malaria.

The findings in this report are subject to at least one limitation. The survey lacked detailed dietary intake and medical data that would have provided a more complete assessment of the health status of each child.

To address severe VAD in children of Kosrae and Yap, vitamin A capsule distribution is the most practical immediate response. However, because of the magnitude and pervasiveness of VAD among preschool-aged children in all four FSM states and the likelihood that this problem extends to older children and adults, a comprehensive, long-term program is indicated. Although the risk factors for VAD identified in the survey do not fully explain the very low serum retinol distributions, they may be helpful in adjusting intervention programs to suit specific conditions in each state (e.g., promotion of vitamin Arich plants in household gardens). A national strategy should be aimed at sustained improvement of vitamin A status of the population. Sustained correction of VAD may be achieved only by combining the supplementation effort among children with food

[†] Confidence interval.

[§] Serum retinol \leq 20 μ g/dL or \leq 0.7 μ mol/L.

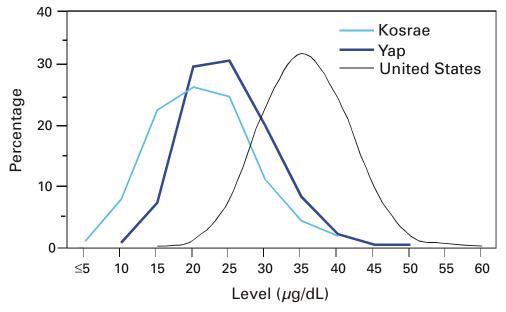
[¶]Height-for-age ≤2 standard deviations (SD) below the World Health Organization (WHO)/ CDC reference median.

^{**} Weight-for-height <2 SD below WHO/CDC reference median.

[#] Hemoglobin <11.0 g/dL.

Vitamin A Deficiency — Continued

FIGURE 1. Percentage distribution of serum retinol levels among children aged 24–59 months in Kosrae and Yap, Federated States of Micronesia, January–February 2000, and among children aged 48–71 months in the United States, 1988–1994*



^{*}Third National Health and Nutrition Examination Survey.

fortification, diversification of dietary supply and consumption patterns, or public health education, as appropriate.

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Measles Incidence Before and After Supplementary Vaccination Activities — Lusaka, Zambia, 1996–2000

Zambia is a sub-Saharan African country (2000 population: nine million) with approximately 10% of the population residing in the capital of Lusaka. In Zambia, measles is one of the five major causes of morbidity and mortality among children aged <5 years. During 1991–1999, the annual number of reported measles cases ranged from 1698 to 23,518. In August 1999, supplementary vaccination activities (SVAs) were conducted in Lusaka among children aged 9 months–4 years. This report summarizes measles incidence, measured by the number of patients presenting to selected medical facilities, before and after SVAs and suggests that substantial measles transmission continued despite this intervention. To improve measles control in Zambia, nationwide supplementary measles vaccination is planned for children aged 9 months–14 years in 2002.

The routine vaccination program in Zambia includes one dose of measles vaccine administered at age 9 months. Reported national measles vaccination coverage ranged from 93% in 1996 to 72% in 1999, with wide fluctuations among districts. In Lusaka, reported vaccination coverage decreased from >95% in 1996 to 54% in 1999 (Ministry of Health, Zambia, unpublished data, 1999).

To accelerate measles control, SVAs were conducted in four urban districts (Kabwe, Kitwe, Lusaka, and Ndola) that comprised approximately one fourth of the Zambian population. During August 20–23, 1999, measles vaccine for children aged 9–59 months, vitamin A for children aged 6–59 months, and oral poliovirus vaccine for children aged 0–59 months were administered during the second round of polio subnational immunization days. Measles vaccine was administered to 197,077 children regardless of prior measles vaccination or disease history. The reported measles vaccination coverage for the four urban districts combined was 81%; Lusaka district reported coverage of 83% (1).

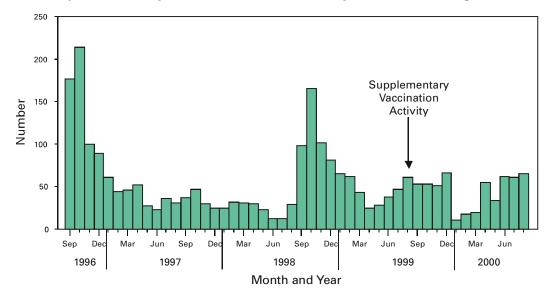
To assess the results of the 1999 campaign, a field investigation was conducted in Lusaka district. Attendance registers were reviewed for patients with measles seen during August 1996–September 2000 at the main city hospital and three health-care centers located in different areas of the city. Data on age, date of disease onset, date of admission, and mortality were abstracted. Because measles in partially immunized populations is a seasonal disease characterized by periodic epidemics, the impact of SVAs was assessed by comparing the annual number of measles cases, deaths, and the age distribution of these before and after SVAs. Three consecutive 12-month periods before SVAs were compared with one 11-month period after SVAs. The post-SVA period started 1 month after the vaccination campaign was conducted (i.e., September 23, 1999–August 22, 2000).

From September 23, 1996, through September 22, 1999, 2048 measles cases were recorded in Lusaka. The highest monthly incidence occurred during October 1996 and October 1998 (Figure 1). Case counts for the pre-SVA periods during 1997, 1998, and 1999 were 900, 333, and 815, respectively; 496 cases were recorded during the post-SVA period.

Of the 2048 patients with measles during the pre-SVA period, 869 (42%) were aged 1–4 years (Table 1). Following SVAs, among the 496 measles patients, 144 (29%) were aged 1–4 years (Chi-square test, p<0.001). The number of measles cases among persons aged \geq 15 years increased in each successive study period (Table 1). The age distribution of measles patients was similar for both inpatients and outpatients. For the four study periods, clinical outcome (e.g., death) was available for 239 (27%) of 900 (1997),

Measles — Continued

FIGURE 1. Number of measles cases among persons presenting to selected health-care facilities, by month and year — Lusaka, Zambia, September 1996–August 2000



249 (75%) of 333 (1998), 539 (66%) of 815 (1999), and 294 (59%) of 496 (2000) patients, respectively. Among patients with known outcome, 15 (6%), 22 (9%), 42 (8%), and 18 (6%) died during the four study periods. From September 23, 1996, through September 22, 1998, no measles deaths were recorded among persons aged \geq 10 years; two deaths and three deaths were recorded in this age group in the two latter study periods, respectively (Table 1).

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Editorial Note: During 1989–1990, the World Health Assembly and the World Summit for Children set goals of reducing measles morbidity by 90% and mortality by 95% compared with prevaccine estimates (2,3). Despite these goals and the existence of safe and effective measles vaccines for approximately 35 years, an estimated 30 million cases and 875,000 deaths are attributed to measles each year (4). In March 2001, the World Health Organization (WHO)/United Nations Children's Fund Global Strategic Plan established a goal of reducing global measles deaths by 50% by 2005 compared with 1999 levels (5). Strategies to decrease measles deaths include 1) achieving and sustaining high population immunity through vaccination; 2) enhancing measles surveillance with integration of epidemiologic and laboratory surveillance; and 3) improving measles case management. The plan recommends that a second opportunity for measles vaccination be offered to all children either through regular SVAs or as a second dose in the routine vaccination schedule if coverage with the first dose of measles vaccine is >90%.

Although SVAs in Lusaka did not have a major impact on measles morbidity and mortality during the 11-month period following the intervention, the expected seasonal peak during September–December 1999 appears to have been blunted and the propor-

		Sep 23	, 1996-	-		Sep 2	3, 1997-	-		Sep 2	3, 1998	_		Sep 23	3, 1999-	-		
Sep 22, 1997		Sep 22, 1998			Sep 22, 1999			Aug 22, 2000				Total						
	Ca	ses	Dea	aths	С	ases	D	eaths	Cas	ses	Deat	ths	Ca	ses	De	eaths	Cases	Deaths
Age group (yrs)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	No.
<1	350	(39)	7	(47)	110	(33)	9	(41)	281	(35)	20	(48)	176	(36)	8	(44)	917	44
1–4	381	(42)	6	(40)	148	(45)	12	(55)	340	(42)	17	(41)	144	(29)	6	(33)	1013	41
5–9	95	(11)	2	(13)	42	(12)	1	(4)	99	(12)	3	(7)	99	(20)	1	(6)	335	7
10–14	65	(7)	0		21	(6)	0		60	(7)	1	(2)	36	(7)	1	(6)	182	2
15–19	6	(1)	0		4	(1)	0		18	(2)	1	(2)	16	(3)	2	(11)	44	3
≥20	3	(0)	0		8	(3)	0		17	(2)	0		25	(5)	0		53	0
Total	900	(100)	15	(100)	333	(100)	22	(100)	815	(100)	42	(100)	496	(100)	18	(100)	2544	97

Measles — Continued

tion of cases among persons aged 1–4 years was reduced. SVAs had limited impact for two major reasons. First, vaccination coverage during SVAs was <85%, and reported coverage may have overestimated actual coverage. In Burkina Faso, cluster surveys in six urban districts after SVAs in 1998 indicated that measles vaccination coverage was 15%–52% lower than reported coverage (6). Second, routine coverage declined during 1997–1999. Conducting SVAs in a setting where routine coverage is declining results in an increase in the number of susceptible infants.

Other possible reasons for the limited impact of SVAs in Lusaka are 1) only children aged 9–59 months were targeted for vaccination, and approximately 20% of reported cases occurred among persons aged ≥5 years; and 2) SVAs were limited to urban areas. Preliminary data suggest that, because of the high contagiousness of measles and migration of susceptible persons from rural areas, targeted urban campaigns have limited impact on transmission, especially during epidemics (World Health Organization Office for Eastern Africa, unpublished data, 1999).

At least four factors contributed to low coverage during SVAs in Lusaka. First, measles vaccine and injection equipment arrived late (1 day before the start of the second round of polio subnational immunization days). Second, donor funds for operational costs were delayed, resulting in insufficient funds for personnel and fewer vaccination posts. Third, health-care workers went on strike on one of the campaign days because of nonpayment of the full government allowances. Finally, supervision and monitoring were inadequate at the central and district levels (1).

During the 11-month period following SVAs, six measles deaths (33% of the annual total) occurred among children who should have received measles vaccination during the campaign. The increase in the number of measles cases among older persons in the latter two study periods may be the result of migration of susceptible persons into Lusaka or changes in use of health-care facilities included in the study.

Improvements in the vaccination infrastructure in Zambia, a reversal of the declining trend in routine vaccination coverage, improvements in monitoring of coverage, high coverage (≥95%) in future SVAs that target a wider age group and geographic area, and strengthening of surveillance are needed to decrease measles-associated morbidity and mortality in Zambia. Advocacy and improved partner coordination are needed to further reduce measles morbidity and mortality.

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Notice to Readers

National HIV Testing Day — June 27, 2001

The National Association of People with AIDS will sponsor the 7th annual National HIV Testing Day on June 27. Testing Day is a nationwide campaign promoting human immunodeficiency virus (HIV) education and voluntary HIV counseling, testing, and referral to encourage persons at risk for HIV infection to know their HIV status and reduce their risks for HIV transmission.

Public health and other partners are encouraged to support community HIV education and counseling, testing, and referral efforts during the week of June 27. Activities can include sponsoring mobile HIV counseling, testing, and referral units; participating in health fairs where HIV education, counseling, testing, and referral are offered; and partnering with local media to promote HIV-prevention and testing messages.

Additional information about HIV counseling, testing, and referral services is available at http://www.hivtest.org.

Notice to Readers

Availability of Health Information for International Travel

CDC's Division of Global Migration and Quarantine (DQ), National Center for Infectious Diseases has released the 2001–2002 edition of *Health Information for International Travel* (The Yellow Book). The new edition contains updated vaccination information; updated information on malaria risk and prophylaxis (by country); updated and revised disease-specific text and tables; new sections on altitude sickness and international adoption; updated country listings; and improved maps and indexing. The Yellow Book can be purchased from the Public Health Foundation, telephone (877) 252-1200 or at http://bookstore.phf.org*. DQ will no longer distribute the book.

^{*}References to sites of non-CDC organizations on the World-Wide Web are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of pages found at these sites.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending June 16, 2001, with historical data

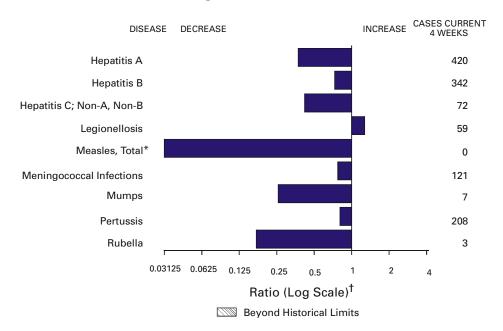


TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending June 16, 2001 (24th Week)

		Cum. 2001		Cum. 2001
Anthrax		-	Poliomyelitis, paralytic	_
Brucellosis*		26	Psittacosis*	4
Cholera		2	Q fever*	7
Cyclosporiasis	5 [*]	70	Rabies, human	-
Diphtheria		1	Rocky Mountain spotted fever (RMSF)	107
Ehrlichiosis:	human granulocytic (HGE)*	28	Rubella, congenital syndrome	-
	human monocytic (HME)*	16	Streptococcal disease, invasive, group A	1,791
Encephalitis:	California serogroup viral*	-	Streptococcal toxic-shock syndrome*	26
•	eastern equine*	-	Syphilis, congenital [¶]	84
	St. Louis*	-	Tetanus	12
	western equine*	-	Toxic-shock syndrome	58
Hansen diseas	se (leprosy)*	28	Trichinosis	5
	Ilmonary syndrome*†	4	Tularemia*	25
Hemolytic ure	emic syndrome, postdiarrheal*	31	Typhoid fever	106
HIV infection,	pediatric*§	84	Yellowfever	-
Plague		-		

^{*} No measles cases were reported for the current 4-week period yielding a ratio for week 24 of

[†] 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.

^{-:} No reported cases. *Not notifiable in all states.

[†] 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 May 29, 2001.

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

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending June 16, 2001, and June 17, 2000 (24th Week)

						coli O157:H7				
	Cum.	DS Cum.	Chlan Cum.	nydia⁺ Cum.	Cryptos Cum.	poridiosis Cum.	NET Cum.	Cum.	PH Cum.	LIS Cum.
Reporting Area UNITED STATES	2001 [§] 15,380	2000 16,292	2001 292,245	2000 314,493	2001 692	2000 701	2001 622	2000 913	2001 447	2000 792
NEW ENGLAND Maine N.H. Vt. Mass. R.I. Conn.	586 18 14 10 332 44 168	987 16 13 1 669 40 248	10,336 572 563 270 4,673 1,267 2,991	10,559 625 476 247 4,496 1,196 3,519	29 3 1 13 7 3 2	44 9 2 13 12 2 6	67 10 12 2 27 4 12	99 6 5 4 51 4 29	48 7 7 1 21 2 10	101 6 8 6 45 6 30
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	3,108 182 1,587 746 593	3,928 181 2,313 832 602	32,184 5,435 13,310 4,079 9,360	29,725 524 12,755 5,580 10,866	77 36 36 2 3	134 34 77 5 18	48 37 4 7 N	123 87 8 28 N	38 25 3 10	91 38 5 25 23
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	1,163 198 119 558 224 64	1,590 196 146 1,002 184 62	41,957 5,226 6,783 11,523 13,968 4,457	53,815 14,153 5,985 15,749 10,331 7,597	222 51 27 1 61 82	155 22 11 22 23 77	148 42 26 30 24 26	176 27 17 53 30 49	99 33 11 19 19	125 28 23 36 23 15
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr. Kans.	355 67 40 168 1 9 27 43	358 78 36 149 - 3 25 67	15,280 2,752 1,490 5,463 445 840 1,546 2,744	17,697 3,645 2,366 5,992 419 815 1,679 2,781	40 - 18 7 3 4 8	49 11 14 7 3 5 6 3	78 30 13 14 1 6 6	112 26 18 32 6 3 19	74 37 7 18 3 5 -	127 45 14 30 6 9 18 5
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fla.	4,910 84 591 360 388 35 212 340 579 2,321	4,276 77 455 315 295 27 255 293 429 2,130	57,213 1,335 5,455 1,515 7,983 1,076 7,787 5,393 11,449 15,220	57,839 1,364 5,924 1,445 7,313 968 9,904 4,539 11,626 14,756	139 1 27 9 8 - 14 - 46 34	104 3 6 4 3 9 - 55 20	69 - 4 - 18 2 24 2 10 9	73 1 10 - 15 3 14 4 9	29 - - U 8 - 11 2 2 6	61 - 1 U 15 3 11 5 12
E.S. CENTRAL Ky. Tenn. Ala. Miss.	836 181 249 182 224	767 98 314 206 149	21,233 3,920 6,769 5,350 5,194	22,770 3,698 6,611 6,992 5,469	16 1 3 5 7	22 1 5 9 7	28 8 13 6	42 14 16 3 9	18 8 9 - 1	31 13 13 3 2
W.S. CENTRAL Ark. La. Okla. Tex.	1,617 89 403 90 1,035	1,475 92 265 112 1,006	46,627 3,364 7,768 4,953 30,542	47,646 2,860 8,662 4,181 31,943	16 2 7 5 2	35 1 8 3 23	31 2 2 10 17	73 30 6 7 30	39 14 10 15	96 26 18 6 46
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	636 12 14 1 126 50 258 53 122	552 7 11 2 130 58 170 57 117	15,646 1,014 778 368 1,441 2,542 6,631 697 2,175	18,587 730 864 345 5,617 2,324 5,803 1,171 1,733	51 5 6 - 16 9 2 11 2	34 5 3 5 8 1 2 8 2	69 5 10 1 29 6 10 5 3	75 11 9 4 28 3 15 4	40 - 1 20 2 9 7 1	53 5 5 17 3 16 5
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	2,169 247 104 1,787 9 22	2,359 243 86 1,962 5 63	51,769 6,370 1,351 42,423 1,166 459	55,855 5,856 3,220 44,017 1,166 1,596	102 N 5 95 - 2	124 U 6 118 -	84 20 19 42 1 2	140 38 21 72 1 8	62 13 13 34 - 2	107 59 24 16 1 7
Guam P.R. V.I. Amer. Samoa C.N.M.I.	9 535 2 - -	13 431 18 - -	2,154 53 U 54	240 U - U U	- - U -	- - U U	N - - U -	N 5 - U U	UUUU	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 May 29, 2001.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending June 16, 2001, and June 17, 2000 (24th Week)

	Weeks ent		Hepati					Lyme Disease	
Dan antin a Ausa	Gonor Cum.	Cum.	Non-A,	Cum.	Legione Cum.	Cum.	Listeriosis Cum.	Cum.	Cum.
Reporting Area UNITED STATES	2001 132,862	2000 155,192	2001 1,015	2000 1,585	2001 307	2000 324	l 2001 173	2001 1,349	2000 3,461
NEW ENGLAND Maine N.H. Vt. Mass. R.I.	2,831 62 61 38 1,431 326	2,909 35 49 29 1,145 293	13 - - 5 8	13 1 - 3 6 3	18 1 4 4 4	23 2 2 1 10 3	20 - - - 12 1	395 - 52 1 51 47	762 - 36 7 297 26
Conn. MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	913 14,622 3,375 5,569 1,346 4,332	1,358 16,529 2,951 5,326 3,120 5,132	35 23 - - 12	340 14 - 303 23	4 31 20 4 4 3	5 82 23 11 8 40	7 28 12 5 6 5	244 581 412 1 83 85	396 2,099 495 75 871 658
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	22,517 3,322 2,787 7,002 8,024 1,382	30,660 8,025 2,714 9,540 7,186 3,195	103 5 1 10 87	120 3 - 12 105 -	79 44 7 - 19 9	87 35 9 8 17 18	22 5 3 - 13 1	46 35 1 - 10	177 15 4 11 7 140
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr.	6,405 871 392 3,284 16 129 540	7,563 1,456 481 3,661 33 122 627	357 1 - 351 - - 1	274 4 1 263 - - 2	28 6 5 10 1 1 4	17 1 3 10 - 1	5 - - 2 - - 1	51 30 8 9 - - 1	45 15 - 16 - - 2
Kans.	1,173	1,183	4	4	1	2	2	3	12
S. ATLANTIC Del. Md. D.C. Va. W. Va. N.C. S.C. Ga. Fla.	34,590 729 3,090 1,282 4,007 278 6,488 3,910 6,214 8,592	40,828 769 4,010 1,023 4,649 309 8,371 4,336 7,148 10,213	51 - 10 - 6 8 3 - 24	39 2 3 1 1 5 13 1 2 11	57 - 14 2 7 N 5 1 4 24	56 4 13 - 7 N 8 2 4	29 - 2 - 5 4 - 2 8 8	210 6 139 7 40 1 6 2	301 59 180 1 38 8 8 2
E.S. CENTRAL Ky. Tenn. Ala. Miss.	13,577 1,527 4,407 4,321 3,322	16,057 1,541 5,078 5,347 4,091	105 3 30 2 70	217 17 49 7 144	28 7 12 7 2	10 5 2 2 1	8 2 3 3	8 2 4 2	15 4 9 1 1
W.S. CENTRAL Ark. La. Okla. Tex.	22,400 2,064 5,330 2,237 12,769	24,594 1,539 6,107 1,808 15,140	161 3 74 3 81	471 3 244 2 222	5 - 2 3	13 - 6 1 6	5 1 - 1 3	7 - 1 - 6	23 - 2 - 21
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	4,638 53 33 29 1,416 410 1,842 62 793	4,741 25 43 30 1,496 491 1,903 119 634	133 - 1 101 11 10 6 1	32 2 3 1 5 6 11	25 - 1 1 7 1 9 4 2	16 - 3 - 6 1 2 4	18 - 1 1 3 3 4 1 5	5 - 2 1 1 - - 1	1 - - 1 - - -
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	11,282 1,368 209 9,432 151 122	11,311 1,008 404 9,540 151 208	57 15 8 34 -	79 10 15 54 -	36 6 N 29 - 1	20 8 N 12 -	38 2 1 34 - 1	46 2 3 41 - N	38 3 34 1 N
Guam P.R. V.I. Amer. Samoa C.N.M.I.	509 6 U 3	25 255 - U U	1 - U -	1 1 - U U	2 U	- - U U	- - - -	N U	N - U U

N: Not notifiable.

U: Unavailable.

-: No reported cases.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending June 16, 2001, and June 17, 2000 (24th Week)

	WCCK3C	namy ou	10, 20	Jo i, aliu J	17,2		nellosis*	
	Ma	laria	Rabio	es, Animal	NE	TSS		HLIS
Reporting Area	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.	Cum.
UNITED STATES	2001 389	2000 526	2001 2,619	2000 3,009	2001 11,326	2000 13,349	2001 9,222	2000 11,912
NEW ENGLAND Maine N.H. Vt.	30 3 2	21 4 1 2	275 34 7 35	336 65 4 32	869 96 71 35	798 55 53 51	806 74 65 34	814 35 51 51
Mass. R.I. Conn.	9 3 13	9 3 2	88 26 85	108 20 107	485 51 131	467 32 140	393 67 173	459 54 164
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	68 19 35 8 6	113 23 59 14 17	382 294 11 70 7	518 314 4 69 131	1,133 414 389 204 126	2,026 449 527 526 524	1,485 376 470 218 421	2,070 536 542 404 588
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	44 9 10 1 16 8	62 6 3 34 13 6	23 8 1 3 11	32 5 - 1 18 8	1,660 587 166 383 302 222	1,913 458 203 603 379 270	1,232 412 141 255 275 149	1,213 434 241 1 401 136
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr.	16 6 1 5 - - 2	24 7 1 5 2 - 3	152 18 31 13 20 21	265 36 38 14 69 55	730 211 122 196 14 49	841 170 107 279 25 34 81	750 279 95 247 22 39	989 271 118 341 37 41 68
Kans. S. ATLANTIC Del. Md. D.C.	2 110 1 43 4	6 117 3 38 6	48 961 18 114	53 1,056 20 211	83 2,725 32 283 32	145 2,246 39 297 26	68 1,642 33 262 U	113 1,914 49 296 U
Va. W. Va. N.C. S.C. Ga. Fla.	24 1 2 4 8 23	26 10 1 4 29	204 60 275 55 135 100	265 56 264 56 123 61	450 41 421 290 393 783	320 54 314 200 373 623	328 48 272 272 351 76	327 54 306 165 534 183
E.S. CENTRAL Ky. Tenn. Ala. Miss.	10 2 5 3	17 3 5 8 1	87 10 61 16	85 12 47 26	672 126 189 215 142	644 142 157 179 166	416 81 187 109 39	534 100 236 167 31
W.S. CENTRAL Ark. La. Okla. Tex.	6 3 1 1	32 1 4 3 24	481 - - 39 442	468 - - 33 435	1,048 162 240 100 546	1,532 156 260 129 987	898 92 214 81 511	902 107 187 104 504
MOUNTAIN Mont. Idaho	22 2 2	20 1 -	105 16 1	113 30 1	826 30 47	1,060 50 58	607 - 4	988 - 49
Wyo. Colo. N. Mex. Ariz. Utah Nev.	10 1 2 3 2	11 - 2 3 3	16 - 4 66 1 1	31 7 41 2 1	28 229 107 237 88 60	27 334 95 237 153 106	22 200 75 206 77 23	25 314 93 258 154 95
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	83 3 5 71 1 3	120 9 22 83 - 6	153 - - 120 33	136 - 113 23	1,663 189 77 1,312 19 66	2,289 181 142 1,863 23 80	1,386 205 125 930 2 124	2,488 269 185 1,931 19 84
Guam P.R. V.I.	3	- 4 -	- 61 -	30	- 274 -	13 205	U U U	U U U
Amer. Samoa C.N.M.I.	U -	U U	U -	U U	U 5	U U	Ü	Ü

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 June 16, 2001, and June 17, 2000 (24th Week)

	<u>weeks er</u>			01, and J	<u>une 17, 2</u>	000 (24th	Week)	
	NET		llosis*	PHLIS		philis	T. L.	
	Cum.	Cum.	Cum.	Cum.	Cum.	& Secondary) Cum.	Cum.	rculosis Cum.
Reporting Area	2001	2000	2001	2000	2001	2000	2001	2000
UNITED STATES	5,587	8,637	2,792	4,869	2,439	2,861	4,857	6,040
NEW ENGLAND Maine	87 4	155 5	86 1	139	21	40 1	193 5	171 3
N.H.	2	1	2	6	1	i	9	4 3
Vt. Mass.	57	112	2 52	93	2 11	27	2 106	101
R.I. Conn.	7 14	10 26	11 18	13 27	2 5	3 8	19 52	17 43
MID. ATLANTIC	511	1,268	343	774	192	134	1,005	987
Upstate N.Y. N.Y. City	277 154	392 582	15 196	147 366	6 115	6 57	134 529	122 533
N.J.	40	185	67	158	43	29	225	232
Pa.	40	109 1,744	65 423	103 540	28 405	42 619	117 521	100 576
E.N. CENTRAL Ohio	869 370	[′] 115	188	96	41	34	79	125
Ind. III.	117 164	605 480	19 105	58 2	81 106	205 214	38 284	56 272
Mich. Wis.	139 <i>7</i> 9	381 163	98 13	353 31	167 10	136 30	88 32	84 39
W.N. CENTRAL	625	715	461	635	28	39	32 187	227
Minn. Iowa	217 133	136 181	240 84	220 149	12 1	4 10	100	76 19
Mo.	123	301	81	209	7	20	52	83
N. Dak. S. Dak.	13 67	2 2	2 37	3 1	-	-	3 6	9
Nebr. Kans.	32 40	28 65	17	16 37	- 8	2 3	17	10 30
S. ATLANTIC	876	988	260	383	924	929	1,001	1,210
Del. Md.	4 52	7 46	4 26	6 22	5 108	4 138	9 77	2 107
D.C.	23	13	U	U	19	20	15	3
Va. W. Va.	71 4	128 3	27 6	133 3	63 -	ස 1	103 14	128 15
N.C. S.C.	170 90	56 57	78 46	28 46	217 123	274 99	149 96	160 135
Ga. Fla.	99 363	115 563	57 16	90 55	129 260	160 170	173 365	250 410
E.S. CENTRAL	573	416	223	283	275	419	307	416
Ky. Tenn.	221 41	108 194	96 38	43 216	22 151	48 258	42 99	47 165
Ala.	122	23	78	21	51	54	129	133
Miss. W.S. CENTRAL	189 903	91 1,478	11 650	3 431	51 317	59 383	37 516	71 922
Ark.	278	94	155	24	19	46	63	90
La. Okla.	104 18	139 51	81 2	75 17	61 34	88 65	66	71 58
Tex.	503	1,194	412	315	203	184	387	703
MOUNTAIN Mont.	346 -	401 3	206	262 -	97 -	100	174 -	220 6
ldaho Wyo.	16	28 2	-	20 2	-	- 1	4 1	4 1
Colo.	67 53	77 42	54 33	35 24	17 9	5 8	53 11	30 24
N. Mex. Ariz.	163	144	89	94	61	82	65	82
Utah Nev.	22 25	34 71	22 8	37 50	6 4	1 3	9 31	22 51
PACIFIC	797	1,472	140	1,422	180	198	953	1,311
Wash. Oreg.	75 24	298 92	76 46	275 57	30 4	31 8	93 45	106 40
Calif. Alaska	684 3	1,056 6	- 1	1,071 3	144	158	777 18	1,054 49
Hawaii	11	20	17	16	2	1	20	62
Guam P.R.	- 6	18 14	U U	U U	- 129	2 82	- 51	27 61
V.I. Amer. Samoa	Ū	Ū	Ŭ	Ŭ U	Ū	Ū	Ū	Ū
C.N.M.I.	4	ŭ	ŭ	Ŭ	-	ŭ	19	ŭ

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 June 16, 2001, and June 17, 2000 (24th Week)

	11 : 4		Hepatitis (Viral), By Type					Measles (Rubeola)							
		<i>ienzae,</i> isive	A	epatitis (v	ігаі), ву і у В	pe	Indige	nous	Impo		Tota	ī			
Reporting Area	Cum. 2001 [†]	Cum. 2000	Cum. 2001	Cum. 2000	Cum. 2001	Cum. 2000	2001	Cum. 2001	2001	Cum. 2001	Cum. 2001	Cum. 2000			
UNITED STATES	660	642	4,170	5,902	2,787	3,159	-	38	-	22	60	44			
NEW ENGLAND Maine N.H. Vt. Mass.	34 1 - 1 24	49 1 8 3 27	193 5 5 5 5	145 7 13 3 59	42 5 10 2 3	49 5 9 5 3	- - - -	3 - - 1 2	- - - -	1 - - 1	4 - - 1 3	3 - - 3 -			
R.I. Conn.	2 6	1 9	8 115	7 56	10 12	9 18	-	-	-	-	-	-			
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	78 33 24 20 1	115 41 33 23 18	366 111 158 70 27	592 105 239 96 152	411 63 244 64 40	552 58 258 92 144	- - - -	2 1 - - 1	- - - -	5 4 - 1	7 5 - 1 1	11 - 10 - 1			
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	85 41 22 10 6 6	96 31 10 35 7 13	467 111 42 133 153 28	770 134 22 331 238 45	346 59 14 51 222	344 58 26 44 200 16	- - - -	- - - - -	- - - -	10 3 4 3 -	10 3 4 3 -	6 2 - 3 1			
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak.	30 15 - 10 3	29 16 - 8 1	189 14 17 54 1	418 113 42 185 -	102 12 12 55 -	132 16 15 66 2	- - - -	4 2 - 2 -	- - - -	- - - -	4 2 - 2 -	1 1 - - -			
Nebr. Kans.	1 1	3 1	22 80	19 59	11 11	22 11	-	-	-	-	-	-			
S. ATLANTIC Del.	213	150	880	575 9	600	524 7	-	3	-	1	4	-			
DMd. D.C. Va. W. Va. N.C. S.C. Ga.	46 - 16 5 28 5 57 56	42 28 4 13 4 42	122 21 62 6 55 26 344 244	70 11 67 39 87 23 80 189	68 7 62 14 99 6 160 184	66 16 72 6 123 4 90 140	- - - - U -	2 - - - - 1	- - - - U	1	3 - - - - 1	- - - - - -			
E.S. CENTRAL Ky. Tenn. Ala. Miss.	51 2 25 23 1	30 11 12 5 2	154 26 70 50 8	229 26 83 29 91	187 17 91 41 38	217 45 94 25 53	- - - -	2 2 - -	- - - -	- - - -	2 2 - -	- - - -			
W.S. CENTRAL Ark. La. Okla. Tex.	24 - 3 21 -	36 12 22 2	591 31 46 81 433	1,080 85 44 136 815	332 47 26 47 212	489 48 72 64 305	- - - -	1 - - 1	- - - -	- - - -	1 - - 1	- - - -			
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	95 1 4 23 12 42 6 7	68 - 2 1 13 15 31 4 2	389 5 35 16 34 13 213 35	404 2 15 3 90 39 191 30 34	256 2 6 16 53 69 78 13	229 3 4 - 44 71 74 12 21	- - - - - - - U	-	- - - - - - U	1 - 1 - - - - -	1 - 1 - - - - -	11 - - 2 - 3 6			
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	50 1 14 31 3 1	69 3 21 25 2 18	941 46 39 844 12	1,689 141 111 1,416 10 11	511 49 28 428 4	623 31 48 533 4 7	- - U -	23 13 1 8 - 1	- - - U -	4 2 - 1 - 1	27 15 1 9 - 2	12 3 7 1 1			
Guam P.R. V.I. Amer. Samoa C.N.M.I.	- 1 - U -	1 3 - U U	- 52 - U -	1 157 - U U	- 93 - U 19	9 122 - U U	U - U U U	- - U -	U - U U U	- - U -	- - U -	- - - U U			

N: Not notifiable. U: Unavailable. -: No reported cases.
*For imported measles, cases include only those resulting from importation from other countries.
† Of 142 cases among children aged <5 years, serotype was reported for 64, and of those, nine were type b.

TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending June 16, 2001, and June 17, 2000 (24th Week)

Meningococcal Disease				Mumps	2000 (2	24(11 4)	Pertussis		Rubella			
Reporting Area	Cum. 2001	Cum. 2000	2001	Cum. 2001	Cum. 2000	2001	Cum. 2001	Cum. 2000	2001	Cum. 2001	Cum. 2000	
UNITED STATES	1,224	1,223	2	80	184	60	1,948	2,543	- 2001	11	72	
NEW ENGLAND Maine N.H. Vt. Mass. R.I. Conn.	75 1 9 4 42 2 17	67 5 6 2 40 4 10	- - - - -	- - - - -	2 - - - 1 1	2 - 1 - 1 -	211 - 19 22 161 1	703 14 61 142 449 8 29	- - - - -	- - - - -	10 - 1 - 8 - 1	
MID. ATLANTIC Upstate N.Y. N.Y. City N.J. Pa.	93 39 23 25 6	133 34 28 23 48	- - - -	5 1 4 -	12 5 4 - 3	3 3 - -	140 100 23 8 9	228 115 39 - 74	- - - -	4 1 2 1	7 1 6 -	
E.N. CENTRAL Ohio Ind. III. Mich. Wis.	163 57 32 20 27 27	213 43 24 57 68 21	- - - - -	9 1 1 6 1	17 7 - 5 4 1	13 11 1 - 1	238 145 20 26 23 24	291 160 25 23 29 54	- - - - -	3 1 2 -	- - - - -	
W.N. CENTRAL Minn. Iowa Mo. N. Dak. S. Dak. Nebr. Kans.	88 13 19 30 5 4 8 9	81 7 18 40 2 5 4 5	- - - - - -	7 2 - - - 1 4	10 - 5 2 - 1 2	- - - - - -	99 31 10 40 - 3 2 13	120 56 17 23 1 3 3	- - - - - -	2 - 1 - - - 1	1 - - - - 1	
S. ATLANTIC Del. Md. D.C. Va. W. Va.	227 - 29 - 25 6	169 - 16 - 29 7	1 - - -	17 - 4 - 2 -	28 - 6 - 5 -	7 - - - -	106 - 16 1 12 1	184 4 46 1 20	- - - -	1 - - -	31 - - - -	
N.C. S.C. Ga. Fla.	48 21 32 66	29 13 32 43	- U - 1	1 1 7 2	3 9 2 3	3 U 2 2	39 19 6 12	49 16 20 28	- U - -	- - - 1	23 6 - 2	
E.S. CENTRAL Ky. Tenn. Ala. Miss.	81 14 30 29 8	88 17 38 25 8	- - - -	2 1 - - 1	4 - 2 2 -	-	42 11 17 11 3	50 27 11 9 3	- - - -	-	4 1 - 3 -	
W.S. CENTRAL Ark. La. Okla. Tex.	160 10 52 18 80	139 6 34 21 78	- - - -	6 1 2 - 3	21 1 4 - 16	13 - - - 13	95 4 2 1 88	109 11 7 9 82	- - - -	-	6 1 1 - 4	
MOUNTAIN Mont. Idaho Wyo. Colo. N. Mex. Ariz. Utah Nev.	68 2 6 5 23 10 11 7 4	58 1 6 - 18 6 18 6 3	- - - - - - - U	7 - 1 1 2 1 1 1	13 1 - 1 - 1 3 4 3	12 - 3 - 2 2 1 4 U	859 6 161 1 151 55 455 21 9	358 7 41 1 201 60 34 10 4	- - - - - - - U	- - - - - - - -	1 - - 1 - - -	
PACIFIC Wash. Oreg. Calif. Alaska Hawaii	269 41 20 204 2	275 27 30 206 4 8	1 1 N U -	27 1 N 21 1 4	77 2 N 63 4	10 9 1 U -	158 56 13 85 1	500 160 44 267 7 22	- - U -	1 - - - 1	12 7 - 5 -	
Guam P.R. V.I. Amer. Samoa C.N.M.I.	3 - U -	- 6 - U U	U - U U	- - - U -	7 - - U U	U - U U	- 2 - U -	3 1 - U U	U - U U	- - - U -	1 - - U U	

N: Not notifiable.

U: Unavailable.

TABLE IV. Deaths in 122 U.S. cities,* week ending June 16, 2001 (24th Week)

All Causes, By Age (Years) All Causes, By Age (Years) All Causes, By Age (Years)															
	,	All Cau	ises, By	Age (Ye	ears)		P&l⁺			All Cau	ises, 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.	. 26 28 63 30 15 ss. U . 26 U 2	349 93 20 19 24 43 19 10 U	26 7 4 6 5 4 U 5 U	38 5 1 14 5 1 0 3 0 1	11 2 3 - - 1 - U	12 8 1 1 - - - - U	41 6 2 2 3 7 - · U 4 U	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.0	117 37 66 47 Fla. 73 218 C. 200	953 116 164 60 106 76 24 38 37 53 153	322 48 53 14 38 23 9 18 7 13 41 46	149 25 34 7 12 17 3 7 1 4 17 22	36 5 6 1 7 - 3 1 2 4 7	18 2 2 2 3 1 1 1 - 1 1 3 2	90 2 29 10 7 9 2 6 4 6 12 3
Springfield, Mass 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. 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.	30 70 2,244 48 18 97 33 28 41 34 4. 1,149 40 22 345 38 18 18	25 217 1,596 31 466 25 30 25 819 251 26 103 14 25 63 30 41 U	9 394 8 4 22 5 4 204 14 7 59 7 1 21 3 3 11 6 3	5 2 1 164 5 - 4 1 2 - 5 90 10 4 23 4 1 6 - 1 4 4 - 1 1 6 - 1 1 1 6 - 1 1 1 1 1 1 1 1 1 1	1 1 3 47 - 1 1 1 3 - 22 1 1 9 - 4 1 1 3 3 - U	1	5 2 0 133 1 1 13 1 2 1 2 2 1 10 4 1 U	Wilmington, De E.S. CENTRAL Birmingham, Ali Chattanooga, Te Knoxville, Tenn. Lexington, Ky. Memphis, Tenn. Mobile, Ala. Montgomery, A Nashville, Tenn. W.S. CENTRAL Austin, Tex. Baton Rouge, La Corpus Christi, Toallas, Tex. El Paso, Tex. El Paso, Tex. Little Rock, Ark. New Orleans, La San Antonio, Te Shreveport, La. Tulsa, Okla.	905 a. 163 enn. 83 94 79 . 224 78 la. 43 141 1,496 89 . 31 Fex. 67 211 113 117 353 64 . 66	3 623 1111 59 65 51 155 29 96 946 87 192 35 153 42 35 153 47 67	12 183 28 20 22 19 46 13 6 29 303 8 8 9 48 31 19 45 9 45 9 18	59 16 6 6 11 7 4 9 138 9 4 3 19 13 5 41 4 6 6 22 8 4	22 5 3 1 1 1 5 1 3 3 67 2 8 2 7 7 29 9 2 3 1 1 2	17 3 1 2 5 2 1 3 40 1 1 2 1 6 2 1 7 1 1 1 3 3 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	76 16 11 7 1 20 1 3 17 95 6 6 16 3 5 7 14 9 9 10
E.N. CENTRAL Akron, Ohio Canton, Ohio Chicago, Ill. Cincinnati, Ohio Cleveland, Ohio Columbus, Ohio Dayton, Ohio Detroit, Mich. Evansville, Ind. Fort Wayne, Ind. Gary, Ind. Grand Rapids, Mi Indianapolis, Ind. Lansing, Mich. Milwaukee, Wis. Peoria, Ill. Rockford, Ill. 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.	180 43 143 51 45 45 89 0 44 904 95 21 . 56 82 31	1,144 40 36 70 77 135 91 117 30 42 12 33 118 29 109 37 32 36 33 63 37 628 78 15 52 79 68	5 8 U 12 27 301 41 7 11 3 8 39 2 21 10 9 7 17 6 16 2 3 35 16 5 35 31 3	99 1 3 U 3 8 19 4 16 2 3 2 4 1 4 1 4 1 6 8 3 3 3 3 5 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	27 - U 2 3 3 1 2 2 5 - 1 1 1 - 1 2 2 7 1 - 2 1 9 1 9 1 9	44 2 1 0 6 7 3 2 7 - - 2 5 1 1 4 1 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 -	105 25 U 8 6 10 7 17 3 5 1 3 11 · 10 1 3 5 7 1 5 11 · 6 5 1 15 9 · 6 6	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 San Francisco, C San Jose, Calif. Santa Cruz, Calif. Seattle, Wash. Spokane, Wash. Tacoma, Wash. TOTAL	55 olo. 55 111 213 29 202 21 tah 89 162 28 94 17 16 18 18 101 16 18 16 11 17 18 17 18 16 11 18 17 18 17 18 18 11 18 17 18 18 11 18 17 18 18 18 11 18 18 18 11 18 18 18 18 18	685 47 38 41 64 153 20 119 16 65 122 1,261 20 62 62 16 50 59 27 41 13 47 69 8,185	187 15 9 24 36 8 46 5 12 23 339 4 20 - 3 9 65 4 20 9 36 10 29 2,267	80 4 24 14 20 1 22 - 6 7 105 2 11 1 3 2 19 10 9 9 4 2 10 3 10 10 10 10 10 10 10 10 10 10 10 10 10	26 1 2 3 4 7 4 5 48 1 1 2 3 3 14 3 8 2 2 8 3 3 1 2 3 1 3 1 3 1 3 1 3 1 3 1 3 3 3 3	27 1 4 1 6 - 8 - 2 2 5 5 26 2 - - 1 1 0 - 2 2 4 3 - 1 1 2 2 4 3 - - - 2 2 4 3 - - 2 2 4 3 - 2 2 4 3 - 2 2 2 4 3 2 2 4 3 2 2 2 2 2 2 2 2 2 2 2	73 7 7 3 8 21 5 12 2 4 4 153 2 9 4 8 8 7 5 8 24 14 15 8 7 8 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8

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.

†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.

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