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Lead Exposure from Indoor Firing Ranges Among Students on Shooting Teams — Alaska, 2002–2004

CDC recognizes blood lead levels (BLLs) of ≥ 25 $\mu\text{g}/\text{dL}$ in adults and ≥ 10 $\mu\text{g}/\text{dL}$ in children aged ≤ 6 years as levels of concern; no similar level has been set for older children and adolescents (1,2). During 2002–2004, the Alaska Environmental Public Health Program (EHPH) conducted lead-exposure assessments of school-based indoor shooting teams in the state, after a BLL of 44 $\mu\text{g}/\text{dL}$ was reported in a man aged 62 years who coached a high school shooting team in central Alaska. This report summarizes the results of the EPHP investigation of potential lead exposure in 66 members of shooting teams, aged 7–19 years, who used five indoor firing ranges. The findings suggest that improper design, operation, and maintenance of ranges were the likely cause of elevated BLLs among team members at four of the five firing ranges. Public health officials should identify indoor firing ranges that have not implemented lead-safety measures and offer consultation to reduce the risk for lead exposure among shooters, coaches, and employees.

The shooting-team coach was asymptomatic for lead exposure; in January 2002, he sought BLL testing from his health-care provider after reading about potential lead exposure at firing ranges. The BLL test result of 44 $\mu\text{g}/\text{dL}$ was reported to EPHP in accordance with the Alaska lead surveillance system, which requires laboratories to report all BLLs ≥ 10 $\mu\text{g}/\text{dL}$. An epidemiologic investigation by EPHP revealed that the man was the chief range officer and shooting-team coach for firing range A, which was used primarily by adolescents. In February 2002, EPHP tested BLLs for all seven members of the shooting team, who were aged 15–17 years. The mean BLL was 24.3 $\mu\text{g}/\text{dL}$ (range: 21.0–31.0 $\mu\text{g}/\text{dL}$). BLLs for 14 nonshooting family members were significantly ($p < 0.05$) lower (mean: 3.5 $\mu\text{g}/\text{dL}$; range: 1.0–7.0 $\mu\text{g}/\text{dL}$) (Table). EPHP advised parents of the team members that their children should discontinue use of the firing range.

Range A, an indoor firing range, was used by the shooting team on school property in a multipurpose building that also housed a hockey rink. A utility fan located near the bullet backstop ventilated the range; no formal range maintenance protocol was observed. An environmental evaluation performed in May 2002 by an independent environmental and engineering consulting firm concluded that the range and its ventilation system were contaminated with lead dust. Three months after their initial testing, the four shooting-team members available for retesting all had lower BLLs; their levels declined from 29 to 16 $\mu\text{g}/\text{dL}$, 23 to 11 $\mu\text{g}/\text{dL}$, 22 to 16 $\mu\text{g}/\text{dL}$, and 21 to 14 $\mu\text{g}/\text{dL}$ (retest mean: 14.3 $\mu\text{g}/\text{dL}$; range: 11–16 $\mu\text{g}/\text{dL}$) (Table). Range A was closed for 1 year, during which time the building was renovated, and a new ventilation system was installed.

Because of the potential for similar lead exposures, during October 2002–January 2004, EPHP investigated four additional indoor firing ranges used by school-based shooting teams in central and southwest Alaska. Range B was a commercial range with paid employees. Ranges C and E were operated by volunteer-run sport associations. Range D was a school-operated range located in a multipurpose room that was also used for lunches, physical education, wrestling practice, and meetings.

Range B had a written maintenance protocol that specified daily, weekly, 6-month, and annual maintenance tasks; range surfaces were cleaned with wet mops and vacuums equipped with high-efficiency particulate air (HEPA) filters. Ranges C,

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Centers for Disease Control and Prevention

Julie L. Gerberding, MD, MPH
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Deborah A. Adams	Tambra McGee
Felicia J. Connor	Pearl C. Sharp
Rosaline Dhara	

* Proposed.

D, and E had no written maintenance protocols; dry sweeping, which aerosolizes lead dust particles, was used to clean floors (Table). Independent assessments by certified industrial hygienists were performed at ranges B, C, and D. The ventilation system at range B was determined adequate in both design and function for the firing range. Ventilation systems for ranges C and D were determined inadequate. Range E ventilation was not assessed; however, EPHP advised the operators to seek an independent assessment.

BLLs of all eight shooting team members tested at range B were ≤ 5.0 $\mu\text{g}/\text{dL}$. Twenty-two (43%) of 51 shooters had BLLs ≥ 10 $\mu\text{g}/\text{dL}$ at ranges C, D, and E; eight (33%) of 24 shooters had BLLs ≥ 25 $\mu\text{g}/\text{dL}$ at range C (Table). Among nonshooting family members tested, BLLs were lower than those for shooters at ranges C ($p < 0.05$) and E ($p = 0.06$); BLL testing was not performed for family members of shooters at ranges B and D. After 3 months away from ranges C and D, 19 (61%) of 31 shooters at those ranges were retested. Test results indicated that BLLs had declined in all but two of the 19 shooters; no further testing was conducted.

EPHP made no recommendations for range B because BLLs among shooters were not elevated and the range had an adequate ventilation system and maintenance practices. Ranges C and D voluntarily shut down. Range C later reopened after installing an improved ventilation system. Shooting practice for team members who used range D was moved to another location. EPHP recommended that range E discontinue dry sweeping, institute a regular maintenance schedule, and acquire the services of an industrial hygienist to evaluate the ventilation system.

Reported by: T Lynn, DVM, S Arnold, PhD, C Wood, MS, L Castrodale, DVM, J Middaugh, MD, Section of Epidemiology, Alaska Dept of Health and Social Svcs. M Chimonas, MD, EIS Officer, CDC.

Editorial Note: Low levels of lead exposure can adversely affect the intellectual development of young children (1). Even BLLs ≤ 5 $\mu\text{g}/\text{dL}$ can have deleterious effects on intelligence quotients for persons aged 6–16 years (3); however, no BLLs of concern have been set for children and adolescents in this age group. During 1999–2002, the geometric mean BLL in the United States was 1.6 $\mu\text{g}/\text{dL}$ for persons aged ≥ 1 year and 1.1 $\mu\text{g}/\text{dL}$ for persons aged 6–19 years (4). Findings in this report indicate that, at four of the five ranges investigated, BLLs among students on shooting teams were elevated, with mean BLLs ranging from 7.6 $\mu\text{g}/\text{dL}$ at range E to 24.3 $\mu\text{g}/\text{dL}$ at range A. None of the four ranges had written protocols for maintenance; three had inadequate ventilation systems, and ventilation at the fourth was not assessed. Range B, where all shooters had BLLs ≤ 5 $\mu\text{g}/\text{dL}$, had a modern, well-maintained ventilation system, followed a written maintenance protocol, and did not employ dry sweeping to clean the range.

TABLE. Assessment of blood lead levels* (BLLs) of school-based shooting-team members and nonshooting family members, by indoor firing range — Alaska, 2002–2004

Firing range	Indoor firing range				Age range (yrs)	Shooting-team members						Nonshooting family members		
	Range operation	Written maintenance protocol	Dry sweeping performed	Assessment of ventilation system		Initial BLL testing			Repeat BLL testing†			Initial BLL testing		
						No.	Mean BLL	(Range)	No.	Mean BLL	(Range)	No.	Mean BLL	(Range)
A	School range	No	No	Inadequate	15–17	7	24.3	(21.0–31.0)	4	14.3	(11.0–16.0)	14	3.5	(1.0–7.0)
B	Commercial	Yes	No	Adequate	13–16	8	2.1	(1.0–5.0)	—	Not performed		—	Not performed	
C	Volunteer-run	No	Yes	Inadequate	15–19	24	18.5	(5.0–37.0)	13	11.1	(3.0–17.0)	6	3.0	(2.0–4.0)
D	School range	No	Yes	Inadequate	14–17	7	8.9	(3.0–14.0)	6	6.8	(3.0–9.0)§	—	Not performed	
E	Volunteer-run	No	Yes	Not assessed	7–17	20	7.6	(2.0–13.0)	—	Not performed		5	2.6	(1.0–5.0)

* Expressed as $\mu\text{g}/\text{dL}$.

† Testing repeated 3 months after discontinued use of firing range.

§ Two shooters had no change in BLL at 3 months, but all others had a decline.

Firing ranges have been recognized as potential sources of lead exposure since the 1970s (5). Lead-containing dust is produced by 1) the combustion of lead-containing primers, 2) the friction of bullets against the gun barrel, and 3) fragmentation as bullets strike the backstop (5). Lead dust inhaled into the lungs is highly bioavailable, with an absorption rate near 100% (6). The Occupational Safety and Health Administration (OSHA) has established acceptable standards for airborne lead exposure in the workplace, including indoor firing ranges, since 1979 (7). Guidelines for proper design and operation include use of a separate ventilation system for firing lanes, written protocol for range maintenance, use of wet mopping or HEPA vacuuming instead of dry sweeping to remove dust and debris, and use of copper-jacketed bullets (8,9).

The findings in this report are subject to at least three limitations. First, detailed shooting histories of the extent of indoor firing range use were not obtained for the students in the study. Second, persons using the firing ranges who were not members of the school shooting teams were not included in the analysis. Finally, limited information was obtained regarding other possible sources of lead exposure. However, other common causes of the elevated BLLs were unlikely because 1) BLL samples of nonshooting family members were not elevated, 2) BLLs decreased for 21 of 23 shooters retested after removal from the firing ranges, 3) lead paint is rare in Alaska (approximately 93% of houses were built since 1950) (1), 4) drinking water measurements were below the action level for lead for each community (10), and 5) the ammunition used by those in the study is not commonly homemade.

This investigation revealed that lead exposure can occur at indoor firing ranges despite federal regulations and specific guidelines pertaining to range design and operation. Because OSHA regulations were created to protect employees and not users of firing ranges, legal requirements for a lead-safety program and adequate range design and operation do not apply

to volunteer-run ranges; moreover, schools with onsite shooting ranges likely are unaware of such requirements. Public health officials should identify volunteer-run or other firing ranges in their areas that do not fall under the jurisdiction of regulatory agencies. Lead-risk assessments should be conducted, and ranges with antiquated design and maintenance protocols should be encouraged to modernize and adopt published recommendations (8,9). Because children and adolescents are at risk for adverse effects from lower levels of lead exposure, they should not participate in range maintenance or clean-up. Periodic BLL testing should be considered for children and adolescents who use indoor firing ranges to ensure that they are not exposed to lead.

References

1. CDC. Screening young children for lead poisoning: guidance for state and local public health officials. Atlanta, GA: US Department of Health and Human Services, CDC; 1997.
2. CDC. Adult blood lead epidemiology and surveillance—United States, 1998–2001. In: Surveillance Summaries, December 13, 2002. MMWR 2002;51(No. SS-11):1–10.
3. Lanphear BP, Dietrich K, Auinger P, Cox C. Cognitive deficits associated with blood lead concentrations $<10 \mu\text{g}/\text{dL}$ in US children and adolescents. Public Health Rep 2000;115:521–9.
4. CDC. Blood lead levels—United States, 1999–2002. MMWR 2005;54:513–6.
5. Fischbein A, Rice C, Sarkozi L, Kon SH, Petrocci M, Selikoff IJ. Exposure to lead in firing ranges. JAMA 1979;241:1141–4.
6. Klaassen CD, Amdur MO, Doull J, et al. Casarett & Doull's toxicology: the basic science of poisons. 5th ed. New York, NY: McGraw-Hill; 1996:703–9.
7. US Department of Labor, Occupational Safety and Health Administration. Final standard: occupational exposure to lead. Federal Register 1978;43:52952–3014. 29 CFR § 1910.1025.
8. Schaeffer DJ, Deem RA, Novak EW. Indoor firing range air quality: results of a facility design survey. Am Ind Hyg Assoc J 1990;51:84–9.
9. Navy Environmental Health Center. Indoor firing ranges industrial hygiene technical guide. Portsmouth, VA: Department of the Navy, Navy Environmental Health Center; 2002. TM6290.99-10 Rev. 1.
10. Division of Environmental Health. Drinking Water Program: drinking water lead level measurement records. Juneau, AK: Department of Environmental Conservation, Division of Environmental Health; July 2001–December 2003.

Seroprevalence of Poliovirus Antibodies Among Children in a Dominican Community — Puerto Rico, 2002

Although the Region of the Americas was certified as polio-free in 1994, an outbreak of paralytic poliomyelitis associated with circulating vaccine-derived poliovirus (cVDPV) occurred during July 2000–July 2001 on the Caribbean island of Hispaniola. A total of 21 cases of paralytic polio associated with type 1 oral poliovirus vaccine (OPV) strain were reported in Haiti and the Dominican Republic (DR) (1). Outbreaks from cVDPV occur among children in communities with low immunity levels to polioviruses and the absence of circulation of wild poliovirus (WPV) (2,3). The U.S. territory of Puerto Rico (PR), located approximately 72 miles east of DR, has not had a case of paralytic polio since 1974. However, because of its proximity to DR and concerns that visitors and immigrants from DR (who tend to live in a separate community in PR) might not be fully vaccinated against polioviruses, the PR Department of Health (PRDH) and CDC assessed the seroprevalence of poliovirus antibodies among children aged 7–60 months in a predominantly DR community of PR. This report describes the results of that assessment, which indicated high levels of seropositivity for all three poliovirus serotypes. If vaccination rates remain high, the risk for a polio outbreak in this community is low. However, until all threats of poliovirus are eliminated globally, high rates of vaccination among preschool children must be ensured to prevent outbreaks of paralytic polio from any source (e.g., imported WPV, laboratory strains, or cVDPV) in the United States and its territories.

By using data from the U.S. 2000 Census and input from the Dominican Consulate in PR, a community of 3,958 households was selected in the San Juan metropolitan area, where a high concentration of Dominican families lived. During July–August 2002, community liaisons hired by PRDH approached households in this community in a nonsystematic way. Households with children aged 7–60 months were eligible for the study regardless of nationality. Sociodemographic surveys and serum samples from the children were obtained from consenting parents. Parents were offered a monetary incentive for their time and an additional incentive for serum samples. Parents could agree to be interviewed but decline permitting serum samples of their children. If more than one child in a household was eligible, the Kish table (4) was used to randomly select a child. Parents/guardians in 320 households agreed to be interviewed, and 180 (56%) consented to their children giving serum samples.

Sera were tested for neutralizing antibodies to poliovirus (PV) types 1, 2, and 3 by using a modified micro-neutralization assay. Each serum specimen was run in triplicate, with the final titer estimated by Spearman-Kärber method (5). Antibody levels were considered protective if titers were $\geq 1:8$. Families with children who did not have antibodies to all three PV serotypes were offered counseling about immunization and a referral for free vaccination.

The 320 children surveyed had a median age of 25 months (range: 7–58 months); 163 (51%) were female. Only two children (0.6%) were born in DR, but mothers of 48 (15%) children and fathers of 65 (20%) children were born in DR; both parents of 43 (13%) children were born in DR. The group that consented to a serum sample differed from the group that only consented to an interview: families with annual incomes of $< \$10,000$ or who did not own a car were more likely to consent to a blood sample (68% versus 49% and 51% versus 33%, respectively).

The number and prevalence of children with neutralizing antibodies against PV serotypes 1, 2, and 3 were 170 (94.4%), 176 (97.8%), and 168 (93.3%), respectively; 162 (90%) had antibodies to all three PV serotypes (Table). Of the 18 children who did not have neutralizing antibodies to all three PV types, 13 tested positive for two PV types (seven, one, and five to serotypes 1 and 2, 1 and 3, and 2 and 3, respectively); two were seropositive to one PV (both to serotype 2); and three were negative to all three PV serotypes. The latter three children were aged 7, 18, and 43 months; the first child reportedly had received 2 doses of inactivated poliovirus vaccine (IPV), and the other two children received 3 doses of IPV.

To identify factors associated with poliovirus immunity, children who had poliovirus antibodies $\geq 1:8$ for all three serotypes were compared with those who did not. No statistically significant difference was noted between these two groups with respect to median age (26 versus 30 months), place of birth of child or parents (DR or PR), polio vaccination

TABLE. Number and percentage of children aged 7–60 months with neutralizing antibodies* to poliovirus (PV), by serotype — Puerto Rico, 2002

Serotype	No.	(%)†
PV 1, 2, and 3	162	(90.0)
PV 1 and 2	7	(4.0)
PV 1 and 3	1	(0.5)
PV 2 and 3	5	(3.0)
PV 1	0	(0)
PV 2	2	(1.0)
PV 3	0	(0)
None	3	(2.0)
Total	180	100.0

* Neutralizing antibody titer of $\geq 1:8$.

† Percentages might not total to 100% because of rounding.

schedule followed (sequential, all IPV, or all OPV), medical insurance status, or participation in the Women, Infants, and Children (WIC) Program. Children who had a history of ≥ 3 poliovirus vaccine doses were more likely to have protective levels for all three polio serotypes than children who had a history of < 3 poliovirus vaccine doses, but this difference was not statistically significant (prevalence ratio = 1.88; 95% confidence interval = 0.60–5.74).

Reported by: E Segarra, MPH, Y Garcia-Guadalupe, MPH, J Rullan, MD, Puerto Rico Dept of Health. L Alexander, MPH, T Murphy, MD, J Alexander, MD, J Seward, MBBS, Epidemiology and Surveillance Div; C Thames, MSc, Data Management Div, National Immunization Program; M Pallansch, PhD, National Center for Infectious Diseases; F Alvarado-Ramy, MD, Div of State and National Partners, National Center for Health Marketing, CDC.

Editorial Note: The majority of children surveyed in this metropolitan San Juan community had neutralizing antibodies to all three PV serotypes and were considered protected against polio. These findings suggest that this community is at low risk for a polio outbreak from either cVDPV or WPV. This conclusion is supported by data from the Puerto Rico 2002 Immunization Survey, which reported 99% coverage levels with 3 doses of poliovirus vaccine among children aged 24 months (6).

The findings in this report are subject to at least two limitations. First, because this assessment relied on a convenience sample, whether the seroprevalence of children surveyed was representative of the community is uncertain. Second, selection bias might have been introduced when interviewed parents were given the option of permitting a serum sample to be obtained from their child. Because parents were offered an additional monetary reimbursement if blood was drawn, the sero-study included families who were poorer than those who refused blood sampling. If vaccine coverage is inversely associated with poverty, then seroprevalence rates would be lower among poorer children and, therefore, would suggest that this survey underestimated the true seroprevalence in this community.

Puerto Rico follows the immunization recommendations of the Advisory Committee on Immunization Practices (e.g., administering IPV at ages 2, 4, 6–18 months, and 4–6 years (7)). The study described in this report included children who were vaccinated during the period of transition from OPV to IPV (1997–1999) and children who were vaccinated after the all-IPV schedule was implemented. The results of the study suggest that the schedule change was accepted in Puerto Rico and that PV vaccine coverage was not compromised.

References

1. CDC. Outbreak of poliomyelitis—Dominican Republic and Haiti, 2000–2001. *MMWR* 2001;50:147.

2. Kew O, Morris-Glasgow V, Landaverde M, et al. Outbreak of poliomyelitis in Hispaniola associated with circulating type 1 vaccine-derived poliovirus [Comment]. *Science* 2002;296:356–9.
3. Kew OM, Wright PF, Agol VI, et al. Circulating vaccine-derived polioviruses: current state of knowledge. *Bull World Health Organ* 2004;82:16–23.
4. Lavrakas PJ. Telephone survey methods: sampling, selection, and supervision. Newbury Park, CA: Sage Publications; 1993.
5. Finney D. Statistical method in biological assay. New York, NY: Hafner; 1964.
6. CDC. Impact of vaccine shortage on diphtheria and tetanus toxoids and acellular pertussis vaccine coverage rates among children aged 24 months—Puerto Rico, 2002. *MMWR* 2002;51:667–8.
7. CDC. Poliomyelitis prevention in the United States: updated recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2000;49(No. RR-5):1–22.

Progress in Measles Control — Zambia, 1999–2004

Zambia, a southern African country with estimated population of 11.6 million in 2005 (1), reported 1,698–23,518 measles cases annually during 1991–1999. During that period, measles was considered one of the five major causes of morbidity and mortality among children aged < 5 years (2). During 1999–2004, the challenge of controlling measles led Zambia to try several strategies in succession. In addition to a single dose of measles vaccine offered at age 9 months through routine services, in 1999, measles supplemental immunization activities (SIAs) targeting children aged 9 months–4 years were held in four urban centers. Those activities were followed in 2000 by a subnational measles SIA targeting children aged 9 months–4 years in approximately half of the country's 72 districts. In 2003, Zambia adopted a strategy of accelerated measles control that included strengthening routine vaccination, providing a second opportunity for measles immunization for all children, and conducting case-based surveillance. As part of this strategy, a nationwide measles SIA targeting all children aged 6 months–14 years was conducted in 2003. This report summarizes progress in measles control in Zambia during 1999–2004, as measured through surveillance data, which demonstrates a marked reduction in measles transmission after the 2003 SIA.

Routine Vaccination

The routine vaccination program in Zambia provides a dose of measles vaccine to infants aged 9 months through fixed stations or through community outreach. The reported coverage with measles vaccine among children aged ≤ 1 year, as measured by the administrative method, was 74% in 1999 and 95% during 2000–2004 (Table). The administrative

TABLE. Routine measles vaccination coverage among children aged ≤ 1 year and measles incidence by age category, by year — Zambia, 1999–2004

Year	Reported coverage ≤ 1 yr (%) [*]	Incidence [†]	
		<5 yrs	≥ 5 yrs
1999	74	5.8 (12,532)	1.1 (9,179)
2000 [§]	94	7.9 (15,365)	2.3 (17,825)
2001	97	8.2 (16,859)	2.0 (16,769)
2002	92	6.0 (12,608)	1.5 (12,429)
2003	97	4.2 (8,625)	0.9 (8,168)
2004	97	0.7 (1,518)	0.2 (1,907)

^{*} Estimated from administrative data.

[†] Number of cases per 1,000 population (case numbers in parentheses).

[§] Target population was adjusted on the basis of Zambia National Census 2000.

method for estimating vaccination coverage is calculated by dividing the reported number of vaccine doses administered by the number of children aged ≤ 1 year, as determined by the census and adjusted for annual growth; in Zambia, no adjustment is made for infant mortality. A 2002 cluster survey indicated routine 1-dose measles vaccine coverage of 84% among children aged ≤ 1 year. To further strengthen routine vaccinations, in January 2004, Zambia implemented the Reaching Every District (RED) strategy advocated by the World Health Organization (WHO) in the 10 districts with the highest number of unvaccinated children (3).

Supplemental Immunization Activities

Zambia conducted three measles SIAs during 1999–2003, which differed from each other in the age group targeted, geographic extent, and coverage achieved. The 1999 SIA targeted all children aged 9 months–4 years in the four urban districts of Kabwe, Kitwe, Lusaka, and Ndola, and achieved coverage of 81% as measured by the administrative method. The 2000 SIA focused on the eastern and northeastern border districts, targeted all children aged 9 months–4 years in 35 (49%) of the country's 72 districts, and achieved 91% coverage as measured by the administrative method. In June 2003, a nationwide SIA expanded the target population to all children aged 6 months–14 years and vaccinated 97% of the target population as measured by a vaccination coverage survey. This SIA also provided vitamin A supplementation and mebendazole anti-helminth treatment nationwide to children aged 6 months–4 years and insecticide-treated bed nets (ITNs) for malaria prevention and control to children in the same age group in one urban and four rural districts.

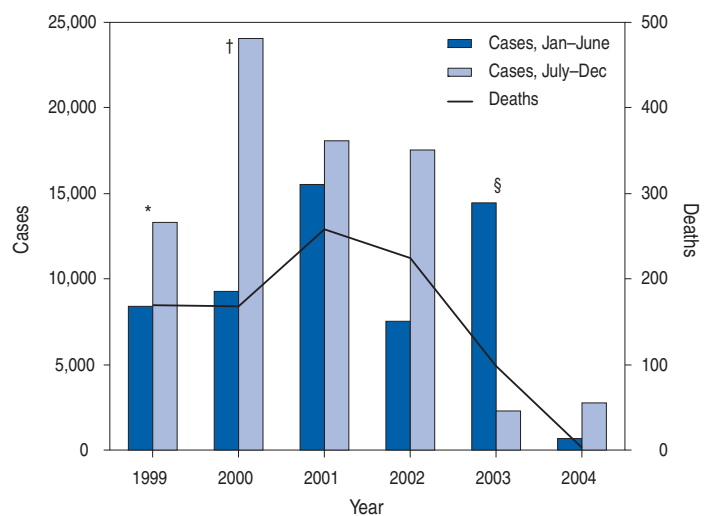
Surveillance

Measles is a notifiable disease in Zambia. The routine information system, including incidence and mortality data, was improved in 1998 with the addition of a nationwide

district-based electronic system. Before July 2003, laboratory confirmation of cases was not performed routinely, and notifiable cases were those clinically suspected to be measles. Case-based measles surveillance with laboratory confirmation of each sporadic case or the first 5–10 outbreak cases was introduced after the 2003 SIA and is currently implemented nationwide. A national measles laboratory accredited by WHO provides routine enzyme-linked immunosorbent assay testing of serum specimens for measles IgM.

During 1999–2003, an average of 26,072 suspected cases of measles were reported annually in Zambia, ranging from 16,793 cases in 2003 to 33,628 cases in 2001 (Figure). After the SIA in June 2003, an 87% decline occurred in the number of reported measles cases in the second half of 2003 (July–December), when compared with the average number of cases for the same period during the preceding 4 years (2,315 versus 18,220). The downward trend continued in 2004, during which 3,425 suspected cases were reported. Of these, 831 (27%) had a blood specimen submitted for confirmatory testing; of these 831 cases, 34 (4%) were positive for IgM antibody to measles. During 1999–2004, reported measles incidence by age group was threefold to fivefold higher among children aged <5 years, compared with persons aged ≥ 5 years (Table). Comparing the reported incidence before and after the June 2003 SIA (i.e., 2002 versus 2004), the declines were similar among children aged <5 years (88%) and persons aged ≥ 5 years (87%).

FIGURE. Number of reported measles cases and deaths, by year and mass vaccination campaign — Zambia, 1999–2004



^{*} Campaign in four urban centers for children aged 9 months–4 years.

[†] Campaign in 35 of 72 districts for children aged 9 months–4 years.

[§] National campaign for children aged 6 months–14 years.

During 1999–2002, the annual average number of deaths attributed to measles was 217, with an average of 110 deaths occurring during the first half of the year (January–June) and an average of 107 deaths occurring during the second half of the year. In 2003, a total of 86 measles deaths were reported during the first half of the year, and 12 deaths were reported during the second half. No measles deaths were reported during the first half of 2004; three deaths were reported during the second half of that year. Reported measles deaths declined by 99% in 2004 compared with the annual average reported during 1999–2002.

Reported by: B Chirwa, V Mukonka, M Katepa, P Kalesha, Central Board of Health, Lusaka, Zambia. D Nshimirimana, A Onyeze, S Anyangwe, E Maganu, R Groves, World Health Organization. R Kezaala, KL Cairns, Global Measles Br, CDC.

Editorial Note: A principal objective of the WHO Global Measles Strategic Plan for 2001–2005 is to decrease measles mortality by 50%, compared with 1999 levels, by 2005 (4). In addition, WHO has recommended that all children be provided a second opportunity for measles vaccination either through SIAs or routine health services (5). During 1999–2004, Zambia improved measles control by strengthening routine vaccination, providing a second opportunity for measles immunization through SIAs, and enhancing measles surveillance.

Reported routine measles vaccine coverage increased >15% from 1999 to 2000, and has remained >90% in each of the preceding 5 years. This increase is attributable, in part, to 1) the twice-yearly Child Health Week immunization campaigns, which boosted routine vaccination by targeting unvaccinated children throughout the country, and 2) the drive to increase routine measles vaccination as a strategy to control measles epidemics. The reported increase in vaccination coverage might also be attributed, in part, to a change in population estimates. The 2000 census estimated approximately 10% fewer children aged ≤ 1 year compared with 1999 estimates, which had been projected from the 1990 census. Although the coverage survey conducted in 2002 suggests reported measles vaccination coverage might be an overestimate of true coverage, routine coverage likely has increased in recent years as a result of increased program activities.

Zambia offered a second opportunity for measles vaccination through SIAs on three occasions during 1999–2004. However, measles morbidity and mortality declined substantially only after the most recent SIA in June 2003, which expanded the previous target population (i.e., children aged 9 months–4 years in selected geographic regions) to all children aged 6 months–14 years nationwide. This experience is similar to what has occurred in other African countries in the sub-Saharan region, where SIAs restricted to children aged

<5 years or conducted subnationally resulted in transient decreases only in the targeted age groups and areas (2,6–8). The most likely explanations for this are: 1) subnational campaigns allow susceptible children to remain in geographic regions not targeted by SIAs, and population mixing then introduces these susceptible children to vaccinated regions, thus allowing virus transmission to persist; and 2) a substantial proportion of persons aged ≥ 5 years remain susceptible to measles, providing opportunity for ongoing transmission of virus both in this age group and to susceptible younger children. Approximately 50% of measles cases reported in Zambia during 1999–2003 occurred in children aged ≥ 5 years.

Through the global initiative to eradicate poliomyelitis, Zambia has strengthened its vaccine delivery and surveillance systems and is now applying this capacity toward measles-control strategies. Case-based measles surveillance has been integrated with acute flaccid paralysis surveillance, and a reference laboratory has been established to provide confirmatory testing of serologic samples from suspected measles cases. The quality of measles case-based surveillance is monitored by two key indicators, the percentage of suspected measles cases with a blood specimen (24% in 2004; target: 80%) and the proportion of districts investigating at least one suspected measles case with a blood specimen per year (74% in 2004; target: 80%).

Zambia achieved near-zero measles mortality and markedly reduced measles incidence after the 2003 national campaign. Routine vaccination and vaccine-preventable disease surveillance in Zambia is funded by the Zambian Ministry of Health and its partners (e.g., WHO, UNICEF, Government of Japan, and the Global Alliance for Vaccines and Immunization). The 2003 national measles SIA was funded by the Measles Partnership*. Bed net distribution was supported by the American Red Cross, the International Federation of Red Cross, and NETMARK, a malaria-related project of the Academy for Educational Development. To sustain these gains in measles control, Zambia must maintain high rates of routine measles vaccination (i.e., >90%), consider adding a second dose of measles vaccine to the routine vaccination schedule, work to sustain the quality of surveillance, and plan for a follow-up nationwide SIA to be held during 2006–2007.

References

1. Central Office of Statistics. Zambia 2000 census of population and housing. Lusaka, Zambia: Central Office of Statistics; 2003.
2. CDC. Measles incidence before and after supplementary vaccination activities—Lusaka, Zambia, 1996–2000. *MMWR* 2001;50:513–6.
3. Central Board of Health. Child health annual report 2004. Lusaka, Zambia: Central Board of Health; 2005.

* In 2003, the Measles Partnership included the American Red Cross, the United Nations Foundation, WHO, UNICEF, Right to Play, and CDC.

4. World Health Organization, United Nation's Children's Fund. Measles mortality reduction and regional elimination strategic plan 2001–2005. Geneva, Switzerland: World Health Organization; 2001.
5. World Health Organization. Strategies for reducing global measles mortality. *Wkly Epidemiol Rec* 2000;75:409–16.
6. Otten MW, Okwo-Bele JM, Kezaala R, Biellik R, Eggers R, Nshimirimana D. Impact of alternative approaches to accelerated measles control: experience in the African Region, 1996–2002. *J Infect Dis* 2003;187:S36–S43.
7. Cliff J, Simango A, Augusto O, Van der Paal L, Biellik R. Failure of targeted urban supplemental measles vaccination campaigns (1997–1999) to prevent measles epidemics in Mozambique (1998–2001). *J Infect Dis* 2003;187:S51–S57.
8. Munyoro MN, Kufa E, Biellik R, Pazvakavambawa IE, Cairns KL. Impact of a nationwide measles vaccination campaign among children aged 9 months to 14 years, Zimbabwe, 1998–2001. *J Infect Dis* 2003;187:S91–S96.

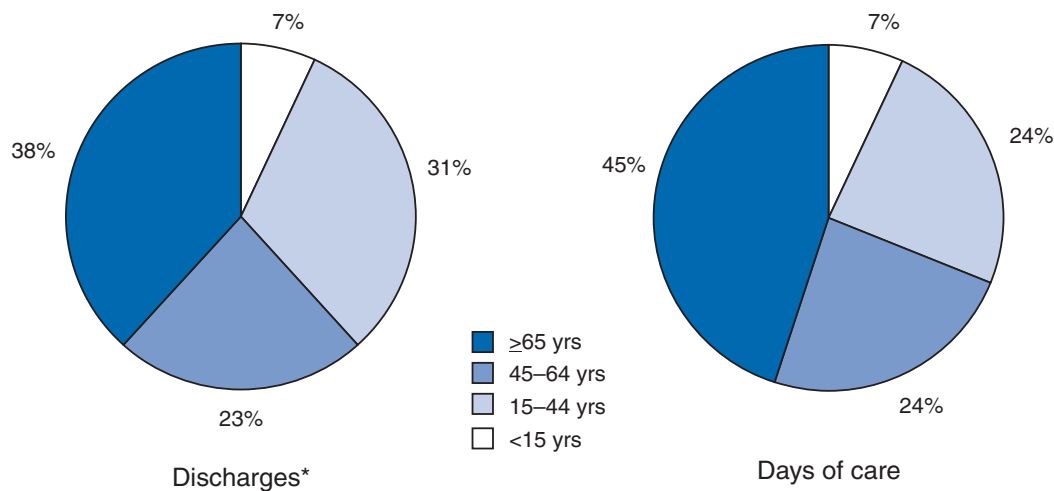
Erratum: Vol. 54, No. 22

In the report, “Travel-Associated Dengue Infections — United States, 2001–2004,” an error occurred in the table on page 557. In the column indicating travel history, for New York, the text should read, “Dominican Republic (five cases, one with DEN-2), Puerto Rico (two cases), U.S. Virgin Islands, Virgin Islands (not otherwise specified).”

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

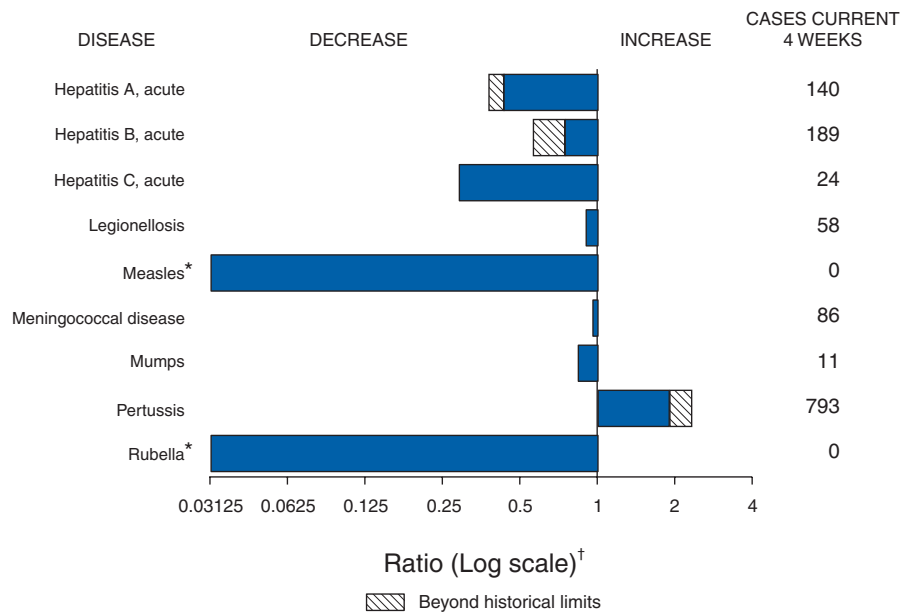
Percentage of Hospital Discharges and Days of Care, by Age Group — United States, 2003



* Percentages do not add to 100% because of rounding.

Since the 1970s, increasing amounts of hospital care have been devoted to patients aged ≥ 65 years. In 2003, 12% of the U.S. population was aged ≥ 65 years; however, these persons accounted for 38% of hospital discharges and 45% of days of hospital care. Additional information is available at <http://www.cdc.gov/nchs/data/ad/ad342.pdf>.

SOURCE: 2003 National Hospital Discharge Survey data file. Available at <http://www.cdc.gov/nchs/about/major/hdasd/nhds.htm>.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals June 11, 2005, with historical data

* No measles or rubella cases were reported for the current 4-week period yielding a ratio for week 23 of zero (0).

[†] Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending June 11, 2005 (23rd Week)*

Disease	Cum. 2005	Cum. 2004	Disease	Cum. 2005	Cum. 2004
Anthrax	—	—	Hemolytic uremic syndrome, postdiarrheal [†]	51	37
Botulism:			HIV infection, pediatric ^{†¶}	35	155
foodborne	5	6	Influenza-associated pediatric mortality ^{†**}	42	—
infant	24	33	Measles	16 ^{††}	16 ^{§§}
other (wound & unspecified)	10	3	Mumps	113	95
Brucellosis	38	39	Plague	2	—
Chancroid	9	21	Poliomyelitis, paralytic	—	—
Cholera	1	4	Psittacosis [†]	8	5
Cyclosporiasis [†]	451	95	Q fever [†]	38	32
Diphtheria	—	—	Rabies, human	1	—
Domestic arboviral diseases			Rubella	4	9
(neuroinvasive & non-neuroinvasive):			Rubella, congenital syndrome	1	—
California serogroup ^{†§}	—	7	SARS ^{†**}	—	—
eastern equine ^{†§}	—	—	Smallpox [†]	—	—
Powassan ^{†§}	—	—	<i>Staphylococcus aureus</i> :		
St. Louis ^{†§}	—	1	Vancomycin-intermediate (VISA) [†]	—	—
western equine ^{†§}	—	—	Vancomycin-resistant (VRSA) [†]	—	1
Ehrlichiosis:			Streptococcal toxic-shock syndrome [†]	67	83
human granulocytic (HGE) [†]	35	67	Tetanus	7	9
human monocytic (HME) [†]	42	40	Toxic-shock syndrome	43	42
human, other and unspecified [†]	11	9	Trichinellosis ^{¶¶}	5	—
Hansen disease [†]	19	46	Tularemia [†]	27	25
Hantavirus pulmonary syndrome [†]	5	6	Yellow fever	—	—

—: No reported cases.

* Incidence data for reporting years 2004 and 2005 are provisional and cumulative (year-to-date).

[†] Not notifiable in all states.

[§] Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).

[¶] Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention. Last update May 29, 2005.

^{**} Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases.

^{††} Of 16 cases reported, 10 were indigenous and six were imported from another country.

^{§§} Of 16 cases reported, five were indigenous and 11 were imported from another country.

^{¶¶} Formerly Trichinosis.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending June 11, 2005, and June 12, 2004 (23rd Week)*

Reporting area	AIDS		Chlamydia†		Coccidioidomycosis		Cryptosporidiosis	
	Cum. 2005§	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	16,504	16,762	381,031	402,514	1,790	2,149	799	1,058
NEW ENGLAND	673	563	13,295	13,370	—	—	45	63
Maine	8	5	938	850	N	N	6	11
N.H.	10	23	800	751	—	—	7	14
Vt.¶	4	13	443	510	—	—	10	7
Mass.	331	149	6,051	5,916	—	—	15	22
R.I.	68	66	1,415	1,548	—	—	1	1
Conn.	252	307	3,648	3,795	N	N	6	8
MID. ATLANTIC	3,059	3,919	45,773	50,255	—	—	115	173
Upstate N.Y.	318	464	9,770	9,781	N	N	30	36
N.Y. City	1,725	2,143	15,085	15,659	—	—	27	53
N.J.	472	670	4,802	8,026	N	N	7	13
Pa.	544	642	16,116	16,789	N	N	51	71
E.N. CENTRAL	1,387	1,440	57,940	71,685	3	5	162	267
Ohio	209	229	14,816	18,518	N	N	59	62
Ind.	198	164	8,794	8,063	N	N	11	31
Ill.	664	702	16,852	20,604	—	—	12	44
Mich.	246	263	10,354	16,434	3	5	26	50
Wis.	70	82	7,124	8,066	N	N	54	80
W.N. CENTRAL	394	320	22,389	24,407	3	4	124	120
Minn.	104	78	3,593	5,125	3	N	37	46
Iowa	48	19	2,951	2,961	N	N	19	15
Mo.	163	127	9,815	8,963	—	3	45	20
N. Dak.	5	13	462	860	N	N	—	4
S. Dak.	9	5	1,244	1,089	—	—	11	16
Nebr.¶	18	21	1,580	2,246	—	1	1	7
Kans.	47	57	2,744	3,163	N	N	11	12
S. ATLANTIC	5,315	5,171	72,981	75,833	—	—	159	193
Del.	81	75	1,443	1,290	N	N	—	—
Md.	637	597	7,762	8,064	—	—	10	9
D.C.	407	308	1,672	1,590	—	—	2	4
Va.¶	273	282	9,241	9,529	—	—	12	23
W. Va.	30	29	1,121	1,223	N	N	4	2
N.C.	399	295	14,010	12,674	N	N	23	34
S.C.¶	287	328	8,763	8,242	—	—	7	9
Ga.	896	778	10,394	14,657	—	—	38	58
Fla.	2,305	2,479	18,575	18,564	N	N	63	54
E.S. CENTRAL	896	773	27,426	25,219	—	3	23	45
Ky.	118	68	4,810	2,423	N	N	8	14
Tenn.¶	369	324	9,718	9,905	N	N	4	13
Ala.¶	244	202	3,534	6,047	—	—	10	10
Miss.	165	179	9,364	6,844	—	3	1	8
W.S. CENTRAL	1,896	2,023	48,189	50,991	—	2	22	38
Ark.	71	88	3,786	3,548	—	1	1	7
La.	370	340	8,168	11,439	—	1	3	—
Okla.	113	87	4,795	4,743	N	N	10	9
Tex.¶	1,342	1,508	31,440	31,261	N	N	8	22
MOUNTAIN	643	553	23,315	22,408	1,203	1,351	49	48
Mont.	4	—	898	1,150	N	N	8	9
Idaho¶	7	3	818	1,309	N	N	2	4
Wyo.	1	6	478	477	2	—	2	2
Colo.	127	96	6,063	5,743	N	N	18	23
N. Mex.	60	88	1,945	3,815	3	10	2	2
Ariz.	258	198	8,484	6,092	1,165	1,307	4	6
Utah	33	31	1,785	1,508	2	6	7	1
Nev.¶	153	131	2,844	2,314	31	28	6	1
PACIFIC	2,241	2,000	69,723	68,346	581	784	100	111
Wash.	196	165	8,386	7,681	N	N	5	—
Oreg.¶	117	110	3,763	3,546	—	—	17	14
Calif.	1,865	1,675	53,731	52,887	581	784	78	95
Alaska	10	13	1,718	1,719	—	—	—	—
Hawaii	53	37	2,125	2,513	—	—	—	2
Guam	1	—	—	651	—	—	—	—
P.R.	335	208	1,819	1,456	N	N	N	N
V.I.	8	5	32	164	—	—	—	—
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	—	U	—	U	—	U

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

* Incidence data for reporting years 2004 and 2005 are provisional and cumulative (year-to-date).

† Chlamydia refers to genital infections caused by *C. trachomatis*.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention. Last update May 29, 2005.

¶ Contains data reported through National Electronic Disease Surveillance System (NEDSS).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 11, 2005, and June 12, 2004 (23rd Week)*

Reporting area	<i>Escherichia coli</i> , Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped		Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004				
UNITED STATES	497	556	68	98	69	52	6,259	6,991	126,992	138,989
NEW ENGLAND	40	36	19	23	7	6	551	640	2,493	3,101
Maine	4	1	3	—	—	—	55	60	57	113
N.H.	4	6	1	4	—	—	26	18	70	56
Vt.	3	—	—	—	—	—	68	47	21	38
Mass.	15	19	6	7	7	6	230	298	1,144	1,327
R.I.	1	5	—	—	—	—	35	50	229	405
Conn.	13	5	9	12	—	—	137	167	972	1,162
MID. ATLANTIC	53	60	3	12	8	10	1,190	1,544	13,120	16,024
Upstate N.Y.	19	17	3	3	3	3	406	468	2,751	3,192
N.Y. City	2	11	—	—	—	—	310	481	3,892	5,027
N.J.	12	13	—	3	—	4	160	202	1,856	3,003
Pa.	20	19	—	6	5	3	314	393	4,621	4,802
E.N. CENTRAL	91	112	9	17	4	6	902	1,064	22,844	29,143
Ohio	36	20	1	4	2	6	261	320	6,881	9,400
Ind.	8	12	—	—	—	—	N	N	3,434	2,736
Ill.	14	29	1	1	—	—	171	342	6,767	8,683
Mich.	16	20	—	2	2	—	263	233	3,829	6,327
Wis.	17	31	7	10	—	—	207	169	1,933	1,997
W.N. CENTRAL	71	88	15	16	9	11	796	758	7,130	7,195
Minn.	9	26	4	7	2	2	394	261	1,015	1,272
Iowa	14	19	—	—	—	—	85	103	643	540
Mo.	25	16	7	7	2	3	167	218	3,983	3,649
N. Dak.	1	3	—	—	—	3	1	11	24	61
S. Dak.	2	3	1	—	—	—	35	28	170	115
Nebr.	5	11	3	2	3	—	42	54	369	472
Kans.	15	10	—	—	2	3	72	83	926	1,086
S. ATLANTIC	71	56	10	11	33	8	921	1,089	31,090	33,654
Del.	—	—	N	N	N	N	11	21	345	413
Md.	10	13	2	2	—	2	68	41	2,866	3,423
D.C.	—	1	—	—	—	—	20	30	893	1,072
Va.	4	4	4	6	8	—	219	156	3,166	3,852
W. Va.	1	1	—	—	—	—	13	12	329	363
N.C.	—	—	—	—	17	4	N	N	6,965	6,706
S.C.	1	5	—	—	—	—	31	39	3,708	4,022
Ga.	9	14	2	1	—	—	218	346	4,651	6,232
Fla.	46	18	2	2	8	2	341	444	8,167	7,571
E.S. CENTRAL	29	38	—	2	5	7	160	154	10,004	10,829
Ky.	7	9	—	1	4	4	N	N	1,498	1,038
Tenn.	11	10	—	—	1	3	80	76	3,454	3,503
Ala.	11	11	—	—	—	—	80	78	2,161	3,449
Miss.	—	8	—	1	—	—	—	—	2,891	2,839
W.S. CENTRAL	14	34	2	1	2	4	94	117	18,966	19,008
Ark.	3	8	—	—	—	—	34	51	1,923	1,745
La.	2	1	2	—	2	—	14	20	4,569	5,205
Okla.	4	5	—	—	—	—	46	46	1,974	1,985
Tex.	5	20	—	1	—	4	N	N	10,500	10,073
MOUNTAIN	51	55	10	15	1	—	472	523	4,807	4,883
Mont.	3	3	—	—	—	—	15	15	46	47
Idaho	5	14	5	3	—	—	38	69	34	35
Wyo.	—	—	1	1	—	—	10	7	26	24
Colo.	15	13	1	1	—	—	166	169	1,244	1,400
N. Mex.	1	5	3	2	—	—	16	31	349	448
Ariz.	11	6	N	N	N	N	65	80	1,767	1,700
Utah	8	6	—	7	—	—	132	110	277	220
Nev.	8	8	—	1	1	—	30	42	1,064	1,009
PACIFIC	77	77	—	1	—	—	1,173	1,102	16,538	15,152
Wash.	21	25	—	—	—	—	112	110	1,547	1,164
Oreg.	16	9	—	1	—	—	96	164	679	438
Calif.	33	39	—	—	—	—	907	763	13,693	12,655
Alaska	4	1	—	—	—	—	32	26	228	286
Hawaii	3	3	—	—	—	—	26	39	391	609
Guam	N	N	—	—	—	—	—	2	—	105
P.R.	—	—	—	—	—	—	11	75	172	116
V.I.	—	—	—	—	—	—	—	—	2	59
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	—	U	—	U	—	U	—	U	—	U

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

* Incidence data for reporting years 2004 and 2005 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 11, 2005, and June 12, 2004 (23rd Week)*

Reporting area	<i>Haemophilus influenzae</i> , invasive							
	All ages		Age <5 years					
	All serotypes		Serotype b		Non-serotype b		Unknown serotype	
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	1,027	1,015	2	8	56	55	98	99
NEW ENGLAND	73	101	—	1	6	6	3	1
Maine	4	7	—	—	—	—	1	—
N.H.	3	12	—	—	—	2	—	—
Vt.	6	5	—	—	—	—	2	1
Mass.	28	52	—	1	1	2	—	—
R.I.	6	2	—	—	2	—	—	—
Conn.	26	23	—	—	3	2	—	—
MID. ATLANTIC	201	206	—	1	—	3	23	26
Upstate N.Y.	57	68	—	1	—	3	5	3
N.Y. City	34	45	—	—	—	—	7	9
N.J.	40	36	—	—	—	—	6	2
Pa.	70	57	—	—	—	—	5	12
E.N. CENTRAL	134	190	1	—	1	8	7	26
Ohio	71	63	—	—	—	2	6	10
Ind.	36	30	—	—	1	4	1	1
Ill.	9	58	—	—	—	—	—	12
Mich.	11	10	1	—	—	2	—	3
Wis.	7	29	—	—	—	—	—	—
W.N. CENTRAL	55	51	—	2	3	3	7	5
Minn.	19	21	—	1	3	3	—	—
Iowa	—	1	—	1	—	—	—	—
Mo.	27	18	—	—	—	—	5	4
N. Dak.	1	3	—	—	—	—	1	—
S. Dak.	—	—	—	—	—	—	—	—
Nebr.	4	2	—	—	—	—	1	—
Kans.	4	6	—	—	—	—	—	1
S. ATLANTIC	246	232	—	—	15	14	13	16
Del.	—	—	—	—	—	—	—	—
Md.	37	39	—	—	4	2	—	—
D.C.	—	1	—	—	—	—	—	1
Va.	26	19	—	—	—	—	—	1
W. Va.	14	10	—	—	1	3	2	—
N.C.	41	30	—	—	5	4	—	—
S.C.	10	5	—	—	—	—	1	—
Ga.	50	69	—	—	—	—	6	14
Fla.	68	59	—	—	5	5	4	—
E.S. CENTRAL	64	37	—	—	1	—	11	7
Ky.	6	1	—	—	1	—	1	—
Tenn.	45	26	—	—	—	—	7	5
Ala.	13	10	—	—	—	—	3	2
Miss.	—	—	—	—	—	—	—	—
W.S. CENTRAL	63	37	1	1	4	4	6	1
Ark.	2	1	—	—	—	—	—	—
La.	26	9	1	—	2	—	6	1
Okla.	35	26	—	—	2	4	—	—
Tex.	—	1	—	1	—	—	—	—
MOUNTAIN	143	117	—	3	14	13	22	12
Mont.	—	—	—	—	—	—	—	—
Idaho	3	5	—	—	—	—	1	2
Wyo.	2	—	—	—	—	—	—	—
Colo.	27	27	—	—	—	—	4	3
N. Mex.	13	25	—	—	4	4	1	4
Ariz.	74	43	—	—	8	6	8	1
Utah	11	8	—	2	—	1	6	1
Nev.	13	9	—	1	2	2	2	1
PACIFIC	48	44	—	—	12	4	6	5
Wash.	—	1	—	—	—	—	—	1
Oreg.	20	22	—	—	—	—	4	2
Calif.	21	14	—	—	12	4	1	1
Alaska	2	3	—	—	—	—	1	1
Hawaii	5	4	—	—	—	—	—	—
Guam	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	—	—	—	—
V.I.	—	—	—	—	—	—	—	—
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	—	U	—	U	—	U	—	U

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

* Incidence data for reporting years 2004 and 2005 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 11, 2005, and June 12, 2004 (23rd Week)*

Reporting area	Hepatitis (viral, acute), by type					
	A		B		C	
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	1,614	2,532	2,447	2,526	285	303
NEW ENGLAND	213	363	125	160	6	6
Maine	—	7	5	1	—	—
N.H.	29	8	5	21	—	—
Vt.	2	6	2	2	6	1
Mass.	153	305	96	76	—	5
R.I.	5	9	1	3	—	—
Conn.	24	28	16	57	U	—
MID. ATLANTIC	263	317	521	326	47	51
Upstate N.Y.	41	37	45	34	11	2
N.Y. City	130	121	44	71	—	—
N.J.	45	70	335	87	—	—
Pa.	47	89	97	134	36	49
E.N. CENTRAL	152	201	162	240	54	34
Ohio	26	25	64	62	1	2
Ind.	21	20	10	13	11	2
Ill.	27	65	14	28	—	10
Mich.	64	69	74	114	42	20
Wis.	14	22	—	23	—	—
W.N. CENTRAL	54	75	171	161	15	2
Minn.	3	23	8	19	1	2
Iowa	14	22	62	11	—	—
Mo.	27	11	73	105	13	—
N. Dak.	—	1	—	1	1	—
S. Dak.	—	2	—	—	—	—
Nebr.	2	9	14	14	—	—
Kans.	8	7	14	11	—	—
S. ATLANTIC	228	452	655	805	60	81
Del.	—	4	30	21	2	3
Md.	25	59	83	69	16	1
D.C.	2	4	4	12	—	1
Va.	38	36	84	88	6	8
W. Va.	3	1	15	2	5	14
N.C.	29	32	67	74	7	6
S.C.	8	25	41	58	1	6
Ga.	36	175	89	244	4	7
Fla.	87	116	242	237	19	35
E.S. CENTRAL	106	73	162	209	38	35
Ky.	5	11	33	24	3	15
Tenn.	77	48	64	96	9	9
Ala.	12	6	31	35	8	2
Miss.	12	8	34	54	18	9
W.S. CENTRAL	101	358	140	117	25	49
Ark.	2	47	19	55	—	—
La.	31	17	21	26	6	3
Okla.	3	16	7	25	—	2
Tex.	65	278	93	11	19	44
MOUNTAIN	158	200	242	195	16	19
Mont.	7	3	3	1	—	2
Idaho	14	10	5	6	—	1
Wyo.	—	2	—	6	—	—
Colo.	18	20	21	22	7	4
N. Mex.	8	8	7	10	—	U
Ariz.	92	132	165	96	—	2
Utah	13	20	26	17	6	2
Nev.	6	5	15	37	3	8
PACIFIC	339	493	269	313	24	26
Wash.	21	26	32	24	4	6
Oreg.	18	36	43	45	9	8
Calif.	288	415	187	232	11	11
Alaska	3	3	5	8	—	—
Hawaii	9	13	2	4	—	1
Guam	—	1	—	10	—	8
P.R.	4	20	3	34	—	—
V.I.	—	—	—	—	—	—
Amer. Samoa	U	U	U	U	U	U
C.N.M.I.	—	U	—	U	—	U

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

* Incidence data for reporting years 2004 and 2005 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 11, 2005, and June 12, 2004 (23rd Week)*

Reporting area	Legionellosis		Listeriosis		Lyme disease		Malaria	
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	472	556	200	226	2,483	4,204	415	527
NEW ENGLAND	30	14	6	11	145	587	17	46
Maine	1	—	—	2	4	28	2	4
N.H.	4	—	1	1	23	21	3	—
Vt.	—	1	—	—	3	12	—	3
Mass.	17	8	2	3	87	386	10	27
R.I.	2	1	1	1	3	47	2	2
Conn.	6	4	2	4	25	93	—	10
MID. ATLANTIC	139	121	43	53	1,727	2,859	115	135
Upstate N.Y.	36	24	13	16	320	921	21	15
N.Y. City	16	15	7	8	—	95	48	66
N.J.	30	20	8	16	747	816	29	30
Pa.	57	62	15	13	660	1,027	17	24
E.N. CENTRAL	96	119	20	38	37	252	24	41
Ohio	48	50	8	14	25	19	7	11
Ind.	6	11	1	6	2	1	—	6
Ill.	9	18	—	8	—	37	5	10
Mich.	25	33	6	8	2	1	9	8
Wis.	8	7	5	2	8	194	3	6
W.N. CENTRAL	13	13	11	4	89	53	21	31
Minn.	1	—	2	1	68	20	8	13
Iowa	2	3	4	1	13	11	2	1
Mo.	8	6	2	2	7	17	10	7
N. Dak.	1	1	2	—	—	—	—	2
S. Dak.	—	1	—	—	—	—	—	1
Nebr.	—	1	—	—	—	4	—	2
Kans.	1	1	1	—	1	1	1	5
S. ATLANTIC	95	122	48	29	417	386	86	129
Del.	1	2	N	N	117	54	—	3
Md.	24	17	6	5	207	241	31	28
D.C.	2	5	—	—	3	2	2	7
Va.	10	8	4	4	37	13	11	10
W. Va.	4	2	1	1	4	2	1	—
N.C.	11	9	9	5	18	45	13	9
S.C.	2	4	1	—	7	4	3	7
Ga.	3	20	10	7	—	8	8	23
Fla.	38	55	17	7	24	17	17	42
E.S. CENTRAL	19	25	9	13	12	18	11	16
Ky.	5	6	1	4	1	7	2	1
Tenn.	7	10	4	7	11	8	6	3
Ala.	7	8	3	1	—	3	3	9
Miss.	—	1	1	1	—	—	—	3
W.S. CENTRAL	11	84	6	20	15	11	32	54
Ark.	1	—	—	1	2	—	2	5
La.	4	5	3	2	3	1	1	3
Okla.	1	2	—	—	—	—	2	2
Tex.	5	77	3	17	10	10	27	44
MOUNTAIN	41	32	2	9	3	5	23	16
Mont.	3	1	—	—	—	—	—	—
Idaho	1	3	—	1	1	2	—	1
Wyo.	2	4	—	—	—	2	1	—
Colo.	10	6	1	2	—	—	13	6
N. Mex.	1	1	—	—	—	—	—	1
Ariz.	12	5	—	—	—	1	5	3
Utah	5	9	—	1	2	—	4	3
Nev.	7	3	1	5	—	—	—	2
PACIFIC	28	26	55	49	38	33	86	59
Wash.	—	4	4	6	—	2	7	2
Oreg.	N	N	4	4	2	18	1	9
Calif.	28	22	47	39	35	13	72	46
Alaska	—	—	—	—	1	—	2	—
Hawaii	—	—	—	—	N	N	4	2
Guam	—	—	—	—	—	—	—	—
P.R.	—	—	—	—	N	N	—	—
V.I.	U	—	U	—	—	—	—	—
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	—	U	—	U	—	U	—	U

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

* Incidence data for reporting years 2004 and 2005 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 11, 2005, and June 12, 2004 (23rd Week)*

Reporting area	Meningococcal disease									
	All serogroups		Serogroup A, C, Y, and W-135		Serogroup B		Other serogroup		Serogroup unknown	
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	627	664	49	47	31	27	—	—	547	590
NEW ENGLAND	45	34	1	4	—	4	—	—	44	26
Maine	1	8	—	—	—	1	—	—	1	7
N.H.	6	3	—	—	—	—	—	—	6	3
Vt.	3	1	—	—	—	—	—	—	3	1
Mass.	24	20	—	4	—	3	—	—	24	13
R.I.	2	1	—	—	—	—	—	—	2	1
Conn.	9	1	1	—	—	—	—	—	8	1
MID. ATLANTIC	84	98	25	29	4	5	—	—	55	64
Upstate N.Y.	22	29	3	5	3	3	—	—	16	21
N.Y. City	10	16	—	—	—	—	—	—	10	16
N.J.	23	18	—	—	—	—	—	—	23	18
Pa.	29	35	22	24	1	2	—	—	6	9
E.N. CENTRAL	58	65	15	9	5	5	—	—	38	51
Ohio	28	38	—	3	5	4	—	—	23	31
Ind.	8	10	—	—	—	1	—	—	8	9
Ill.	2	1	—	—	—	—	—	—	2	1
Mich.	15	6	15	6	—	—	—	—	—	—
Wis.	5	10	—	—	—	—	—	—	5	10
W.N. CENTRAL	40	42	2	—	1	3	—	—	37	39
Minn.	6	12	1	—	—	—	—	—	5	12
Iowa	11	9	—	—	1	2	—	—	10	7
Mo.	12	13	1	—	—	1	—	—	11	12
N. Dak.	—	1	—	—	—	—	—	—	—	1
S. Dak.	2	1	—	—	—	—	—	—	2	1
Nebr.	3	2	—	—	—	—	—	—	3	2
Kans.	6	4	—	—	—	—	—	—	6	4
S. ATLANTIC	111	135	2	2	4	2	—	—	105	131
Del.	2	2	—	—	—	—	—	—	2	2
Md.	11	7	1	—	2	—	—	—	8	7
D.C.	—	5	—	2	—	—	—	—	—	3
Va.	14	9	—	—	—	—	—	—	14	9
W. Va.	4	4	—	—	—	—	—	—	4	4
N.C.	11	20	1	—	2	2	—	—	8	18
S.C.	11	13	—	—	—	—	—	—	11	13
Ga.	10	9	—	—	—	—	—	—	10	9
Fla.	48	66	—	—	—	—	—	—	48	66
E.S. CENTRAL	33	29	—	—	3	—	—	—	30	29
Ky.	11	3	—	—	3	—	—	—	8	3
Tenn.	15	10	—	—	—	—	—	—	15	10
Ala.	3	6	—	—	—	—	—	—	3	6
Miss.	4	10	—	—	—	—	—	—	4	10
W.S. CENTRAL	47	40	1	1	4	1	—	—	42	38
Ark.	8	10	—	—	—	—	—	—	8	10
La.	21	24	—	1	2	—	—	—	19	23
Okla.	10	4	1	—	2	1	—	—	7	3
Tex.	8	2	—	—	—	—	—	—	8	2
MOUNTAIN	57	36	2	—	5	3	—	—	50	33
Mont.	—	1	—	—	—	—	—	—	—	1
Idaho	1	4	—	—	—	—	—	—	1	4
Wyo.	—	3	—	—	—	—	—	—	—	3
Colo.	12	11	2	—	—	—	—	—	10	11
N. Mex.	1	4	—	—	—	2	—	—	1	2
Ariz.	32	6	—	—	2	—	—	—	30	6
Utah	7	2	—	—	2	—	—	—	5	2
Nev.	4	5	—	—	1	1	—	—	3	4
PACIFIC	152	185	1	2	5	4	—	—	146	179
Wash.	29	16	1	2	4	4	—	—	24	10
Oreg.	23	37	—	—	—	—	—	—	23	37
Calif.	93	125	—	—	—	—	—	—	93	125
Alaska	1	2	—	—	—	—	—	—	1	2
Hawaii	6	5	—	—	1	—	—	—	5	5
Guam	—	—	—	—	—	—	—	—	—	—
P.R.	4	9	—	—	—	—	—	—	4	9
V.I.	—	—	—	—	—	—	—	—	—	—
Amer. Samoa	—	—	—	—	—	—	—	—	—	—
C.N.M.I.	—	—	—	—	—	—	—	—	—	—

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 11, 2005, and June 12, 2004 (23rd Week)*

Reporting area	Pertussis		Rabies, animal		Rocky Mountain spotted fever		Salmonellosis		Shigellosis	
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	7,193	4,840	2,125	2,669	271	323	11,151	12,258	4,181	5,159
NEW ENGLAND	387	671	312	220	1	7	680	604	82	103
Maine	12	3	24	28	N	N	46	35	2	2
N.H.	18	21	4	8	—	—	54	37	4	4
Vt.	49	40	25	9	—	—	39	20	4	2
Mass.	280	577	186	89	—	6	368	341	47	66
R.I.	11	9	8	13	1	1	23	43	4	6
Conn.	17	21	65	73	—	—	150	128	21	23
MID. ATLANTIC	660	1,028	239	322	20	29	1,416	1,624	441	554
Upstate N.Y.	245	738	187	163	—	1	389	371	113	258
N.Y. City	28	73	9	5	1	8	328	479	175	157
N.J.	117	72	N	N	6	8	227	290	120	90
Pa.	270	145	43	154	13	12	472	484	33	49
E.N. CENTRAL	1,530	1,204	41	23	6	12	1,340	1,761	296	367
Ohio	648	184	21	7	5	5	371	417	26	72
Ind.	142	38	3	3	—	1	134	170	33	62
Ill.	83	239	10	8	—	5	273	581	54	143
Mich.	105	46	7	3	1	1	287	295	120	42
Wis.	552	697	—	2	—	—	275	298	63	48
W.N. CENTRAL	1,007	272	158	259	38	30	817	824	386	159
Minn.	212	41	31	21	—	—	199	196	28	22
Iowa	338	39	31	29	—	—	120	169	41	32
Mo.	197	153	25	7	35	25	255	227	256	65
N. Dak.	48	8	6	27	—	—	11	15	2	1
S. Dak.	1	11	27	56	2	—	58	29	15	6
Nebr.	93	4	—	63	—	5	68	54	26	7
Kans.	118	16	38	56	1	—	106	134	18	26
S. ATLANTIC	479	253	709	1,079	132	164	2,959	2,595	698	1,277
Del.	13	—	—	9	1	2	16	24	4	3
Md.	85	53	114	128	14	10	256	220	29	49
D.C.	4	6	—	—	—	—	17	16	7	21
Va.	79	59	248	203	8	1	314	280	41	42
W. Va.	25	4	17	32	2	—	46	50	—	—
N.C.	27	43	218	291	87	103	477	284	63	137
S.C.	161	39	5	63	6	17	161	165	35	227
Ga.	14	12	102	148	5	25	405	484	187	296
Fla.	71	37	5	205	9	6	1,267	1,072	332	502
E.S. CENTRAL	212	58	59	60	34	41	645	742	612	263
Ky.	58	10	6	11	—	—	118	121	88	34
Tenn.	100	33	20	20	25	20	245	224	341	109
Ala.	40	7	33	24	9	11	194	198	147	93
Miss.	14	8	—	5	—	10	88	199	36	27
W.S. CENTRAL	177	207	460	575	13	34	762	1,289	756	1,489
Ark.	93	15	15	24	7	12	197	150	25	19
La.	15	8	—	—	1	3	213	229	53	151
Okla.	—	13	48	65	5	19	126	112	328	226
Tex.	69	171	397	486	—	—	226	798	350	1,093
MOUNTAIN	1,797	483	91	49	22	3	770	849	248	326
Mont.	357	13	—	5	1	—	35	55	2	4
Idaho	58	17	—	—	1	1	46	60	1	5
Wyo.	15	3	11	—	1	—	18	21	—	1
Colo.	665	247	8	6	2	1	189	194	41	54
N. Mex.	62	67	—	—	—	—	61	90	31	58
Ariz.	428	95	72	38	13	1	245	266	129	169
Utah	189	31	—	—	4	—	117	88	19	15
Nev.	23	10	—	—	—	—	59	75	25	20
PACIFIC	944	664	56	82	5	3	1,762	1,970	662	621
Wash.	224	184	—	—	—	—	164	143	32	35
Oreg.	286	213	—	—	—	2	116	169	24	32
Calif.	356	248	55	71	5	1	1,350	1,489	589	527
Alaska	20	10	1	11	—	—	19	28	5	5
Hawaii	58	9	—	—	—	—	113	141	12	22
Guam	—	—	—	—	—	—	—	41	—	31
P.R.	—	—	28	22	N	N	37	135	—	9
V.I.	—	—	—	—	—	—	—	—	—	—
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	—	U	—	U	—	U	—	U	—	U

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TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 11, 2005, and June 12, 2004 (23rd Week)*

Reporting area	Streptococcal disease, invasive, group A		Streptococcus pneumoniae, invasive disease				Syphilis			
			Drug resistant, all ages		Age <5 years		Primary & secondary		Congenital	
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004
UNITED STATES	2,207	2,516	1,216	1,228	409	416	3,137	3,307	100	185
NEW ENGLAND	82	183	12	71	46	63	87	82	—	—
Maine	5	4	N	N	—	2	1	—	—	—
N.H.	7	12	—	—	3	N	5	3	—	—
Vt.	7	5	6	6	3	1	—	—	—	—
Mass.	57	87	—	18	40	38	60	50	—	—
R.I.	6	17	6	7	—	3	2	9	—	—
Conn.	—	58	U	40	U	19	19	20	—	—
MID. ATLANTIC	512	442	129	95	70	60	404	427	10	21
Upstate N.Y.	169	136	50	42	42	39	33	38	4	1
N.Y. City	80	74	U	U	U	U	265	250	5	9
N.J.	108	94	N	N	13	5	57	77	1	10
Pa.	155	138	79	53	15	16	49	62	—	1
E.N. CENTRAL	422	586	327	292	107	104	261	393	17	27
Ohio	115	143	216	208	50	50	89	110	2	1
Ind.	46	66	109	84	29	22	33	27	1	1
Ill.	82	169	2	—	24	—	99	151	3	3
Mich.	171	162	—	N	—	N	32	89	9	22
Wis.	8	46	N	N	4	32	8	16	2	—
W.N. CENTRAL	149	183	31	12	47	40	95	84	1	2
Minn.	53	85	—	—	28	23	19	14	—	1
Iowa	N	N	N	N	—	N	1	4	—	—
Mo.	45	41	27	9	4	8	63	47	1	1
N. Dak.	2	8	—	—	1	1	—	—	—	—
S. Dak.	15	8	2	3	—	—	—	—	—	—
Nebr.	11	13	2	—	4	5	2	5	—	—
Kans.	23	28	N	N	10	3	10	14	—	—
S. ATLANTIC	448	500	481	626	48	31	796	825	21	32
Del.	—	2	1	4	—	N	6	3	—	—
Md.	119	78	—	—	32	20	137	157	7	4
D.C.	6	5	13	5	2	4	54	23	—	1
Va.	37	39	N	N	—	N	45	47	3	1
W. Va.	10	16	62	66	14	7	2	3	—	—
N.C.	72	73	N	N	U	U	103	69	6	3
S.C.	11	43	—	72	—	N	29	58	—	9
Ga.	75	129	109	154	—	N	98	148	—	2
Fla.	118	115	296	325	—	N	322	317	5	12
E.S. CENTRAL	105	133	109	80	5	9	165	181	12	9
Ky.	23	42	20	20	N	N	15	23	—	1
Tenn.	82	91	89	58	—	N	75	64	8	1
Ala.	—	—	—	—	—	N	59	75	3	5
Miss.	—	—	—	2	5	9	16	19	1	2
W.S. CENTRAL	90	185	83	38	54	83	560	498	21	33
Ark.	7	6	11	5	12	7	23	15	—	3
La.	5	1	72	33	17	20	117	120	2	2
Okla.	67	32	N	N	16	23	18	12	1	2
Tex.	11	146	N	N	9	33	402	351	18	26
MOUNTAIN	351	262	44	13	32	26	173	168	14	24
Mont.	—	—	—	—	—	—	5	—	—	—
Idaho	1	4	N	N	—	N	16	10	1	2
Wyo.	2	5	18	4	—	—	—	1	—	—
Colo.	130	56	N	N	31	26	19	30	—	—
N. Mex.	23	58	—	N	—	—	23	47	1	2
Ariz.	146	116	N	N	—	N	61	69	12	20
Utah	48	22	25	7	1	—	4	3	—	—
Nev.	1	1	1	2	—	—	45	8	—	—
PACIFIC	48	42	—	1	—	—	596	649	4	37
Wash.	N	N	N	N	N	N	62	38	—	—
Oreg.	N	N	N	N	—	N	15	15	—	—
Calif.	—	—	N	N	N	N	513	593	4	37
Alaska	—	—	—	—	—	N	4	—	—	—
Hawaii	48	42	—	1	—	—	2	3	—	—
Guam	—	—	—	—	—	—	—	1	—	—
P.R.	N	N	N	N	—	N	75	64	6	3
V.I.	—	—	—	—	—	—	—	4	—	—
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	—	U	—	U	—	U	—	U	—	U

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

* Incidence data for reporting years 2004 and 2005 are provisional and cumulative (year-to-date).

TABLE II. (Continued) Provisional cases of selected notifiable diseases, United States, weeks ending June 11, 2005, and June 12, 2004 (23rd Week)*

Reporting area	Tuberculosis		Typhoid fever		Varicella (chickenpox)		West Nile virus disease†		
	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Neuroinvasive		Non-neuroinvasive‡
							Cum. 2005	Cum. 2004	Cum. 2005
UNITED STATES	4,054	5,245	86	109	11,082	11,860	—	63	—
NEW ENGLAND	134	170	9	12	446	1,514	—	—	—
Maine	7	9	—	—	136	44	—	—	—
N.H.	4	7	—	—	90	—	—	—	—
Vt.	—	—	—	—	28	353	—	—	—
Mass.	88	95	7	11	192	34	—	—	—
R.I.	14	22	—	1	—	—	—	—	—
Conn.	21	37	2	—	U	1,083	—	—	—
MID. ATLANTIC	857	808	24	30	2,613	32	—	2	—
Upstate N.Y.	107	99	4	2	—	—	—	—	—
N.Y. City	431	415	5	10	—	—	—	1	—
N.J.	200	170	8	11	—	—	—	—	—
Pa.	119	124	7	7	2,613	32	—	1	—
E.N. CENTRAL	542	467	4	11	3,681	3,792	—	1	—
Ohio	110	81	—	2	829	923	—	—	—
Ind.	55	54	—	—	120	N	—	—	—
Ill.	255	226	1	5	17	1	—	—	—
Mich.	85	74	1	3	2,460	2,409	—	1	—
Wis.	37	32	2	1	255	459	—	—	—
W.N. CENTRAL	193	171	1	3	77	127	—	2	—
Minn.	77	67	1	2	—	—	—	—	—
Iowa	17	15	—	—	N	N	—	—	—
Mo.	54	47	—	1	3	2	—	1	—
N. Dak.	2	3	—	—	10	70	—	—	—
S. Dak.	5	4	—	—	64	55	—	1	—
Nebr.	16	11	—	—	—	—	—	—	—
Kans.	22	24	—	—	—	—	—	—	N
S. ATLANTIC	925	1,061	12	9	978	1,398	—	1	—
Del.	2	11	—	—	6	4	—	—	—
Md.	99	91	2	2	—	—	—	—	—
D.C.	27	4	—	—	16	17	—	—	—
Va.	105	83	3	3	177	343	—	—	—
W. Va.	10	10	—	—	602	764	—	—	N
N.C.	87	106	2	2	—	N	—	—	—
S.C.	93	83	—	—	177	270	—	—	—
Ga.	128	288	2	—	—	—	—	—	—
Fla.	374	385	3	2	—	—	—	1	—
E. S. CENTRAL	233	233	1	4	—	—	—	1	—
Ky.	47	39	1	2	N	N	—	—	—
Tenn.	106	82	—	2	—	—	—	—	—
Ala.	80	79	—	—	—	—	—	1	—
Miss.	—	33	—	—	—	—	—	—	—
W.S. CENTRAL	288	931	3	7	1,698	3,552	—	2	—
Ark.	41	59	—	—	—	—	—	—	—
La.	—	—	—	—	97	44	—	—	—
Okla.	59	72	—	—	—	—	—	—	—
Tex.	188	800	3	7	1,601	3,508	—	2	—
MOUNTAIN	126	226	3	6	1,589	1,445	—	52	—
Mont.	—	—	—	—	—	—	—	—	—
Idaho	—	—	—	—	—	—	—	—	—
Wyo.	—	1	—	—	42	20	—	—	—
Colo.	25	58	—	1	1,131	1,135	—	1	—
N. Mex.	4	16	—	—	93	U	—	—	—
Ariz.	86	94	1	2	—	—	—	51	—
Utah	11	19	1	1	323	290	—	—	—
Nev.	—	38	1	2	—	—	—	—	—
PACIFIC	756	1,178	29	27	—	—	—	2	—
Wash.	86	96	2	2	N	N	—	—	—
Oreg.	42	38	2	—	—	—	—	—	—
Calif.	564	981	20	19	—	—	—	2	—
Alaska	13	14	—	—	—	—	—	—	—
Hawaii	51	49	5	6	—	—	—	—	—
Guam	—	35	—	—	—	65	—	—	—
P.R.	—	21	—	—	77	240	—	—	—
V.I.	—	—	—	—	—	—	—	—	—
Amer. Samoa	U	U	U	U	U	U	U	U	—
C.N.M.I.	—	U	—	U	—	U	—	U	—

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

* Incidence data for reporting years 2004 and 2005 are provisional and cumulative (year-to-date).

† Updated weekly from reports to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNet Surveillance).

‡ Not previously notifiable.

TABLE III. Deaths in 122 U.S. cities,* week ending June 11, 2005 (23rd Week)

Reporting Area	All causes, by age (years)							Reporting Area	All causes, by age (years)						
	All Ages	≥65	45-64	25-44	1-24	<1	P&I [†] Total		All Ages	≥65	45-64	25-44	1-24	<1	P&I [†] Total
NEW ENGLAND	539	394	95	27	15	8	47	S. ATLANTIC	1,301	787	332	106	40	35	72
Boston, Mass.	129	89	28	4	4	4	10	Atlanta, Ga.	196	111	55	20	9	1	8
Bridgeport, Conn.	28	21	6	1	—	—	4	Baltimore, Md.	202	123	43	25	6	5	15
Cambridge, Mass.	15	13	1	1	—	—	—	Charlotte, N.C.	110	73	26	5	4	2	11
Fall River, Mass.	27	22	4	1	—	—	4	Jacksonville, Fla.	152	87	46	7	4	7	4
Hartford, Conn.	48	36	10	1	1	—	5	Miami, Fla.	112	76	24	8	3	1	4
Lowell, Mass.	22	18	1	3	—	—	2	Norfolk, Va.	55	29	17	4	2	3	1
Lynn, Mass.	12	7	3	—	2	—	—	Richmond, Va.	59	29	20	7	1	2	5
New Bedford, Mass.	24	18	3	1	2	—	2	Savannah, Ga.	43	29	10	1	—	3	5
New Haven, Conn.	44	25	9	6	2	2	6	St. Petersburg, Fla.	45	27	10	2	2	4	2
Providence, R.I.	54	40	8	3	2	1	3	Tampa, Fla.	213	142	44	15	6	6	13
Somerville, Mass.	8	4	4	—	—	—	—	Washington, D.C.	99	50	33	12	3	1	3
Springfield, Mass.	24	17	5	2	—	—	5	Wilmington, Del.	15	11	4	—	—	—	1
Waterbury, Conn.	36	27	7	2	—	—	1	E.S. CENTRAL	971	638	216	61	34	21	55
Worcester, Mass.	68	57	6	2	2	1	5	Birmingham, Ala.	209	130	54	13	6	6	9
MID. ATLANTIC	2,188	1,469	480	149	52	36	128	Chattanooga, Tenn.	77	58	14	4	1	—	5
Albany, N.Y.	34	20	8	5	1	—	1	Knoxville, Tenn.	111	75	24	4	6	2	1
Allentown, Pa.	21	18	3	—	—	—	1	Lexington, Ky.	63	35	19	7	2	—	5
Buffalo, N.Y.	76	52	16	3	4	1	9	Memphis, Tenn.	203	127	43	14	12	7	15
Camden, N.J.	22	14	4	2	1	1	3	Mobile, Ala.	90	62	20	6	1	—	4
Elizabeth, N.J.	12	9	2	1	—	—	2	Montgomery, Ala.	62	42	15	2	2	1	8
Erie, Pa.	45	34	6	—	4	1	—	Nashville, Tenn.	156	109	27	11	4	5	8
Jersey City, N.J.	43	23	18	1	1	—	—	W.S. CENTRAL	1,380	863	326	108	42	41	58
New York City, N.Y.	1,094	763	219	76	19	15	55	Austin, Tex.	85	51	19	6	3	6	3
Newark, N.J.	47	29	12	4	1	1	1	Baton Rouge, La.	46	31	13	2	—	—	—
Paterson, N.J.	U	U	U	U	U	U	U	Corpus Christi, Tex.	59	42	11	5	—	1	3
Philadelphia, Pa.	402	229	103	42	16	12	27	Dallas, Tex.	164	91	41	15	11	6	11
Pittsburgh, Pa. [§]	32	23	8	—	—	1	2	El Paso, Tex.	69	49	14	5	1	—	5
Reading, Pa.	33	22	7	4	—	—	3	Ft. Worth, Tex.	105	61	33	5	3	3	5
Rochester, N.Y.	141	98	34	6	2	1	9	Houston, Tex.	316	188	78	27	8	15	10
Schenectady, N.Y.	21	17	4	—	—	—	1	Little Rock, Ark.	71	40	18	7	5	1	2
Scranton, Pa.	34	28	5	—	1	—	3	New Orleans, La.	42	24	8	8	2	—	1
Syracuse, N.Y.	70	51	15	1	1	2	8	San Antonio, Tex.	241	162	50	18	3	8	16
Trenton, N.J.	22	12	6	3	—	1	—	Shreveport, La.	47	26	14	6	1	—	2
Utica, N.Y.	17	13	3	—	1	—	2	Tulsa, Okla.	135	98	27	4	5	1	—
Yonkers, N.Y.	22	14	7	1	—	—	1	MOUNTAIN	1,192	802	226	92	39	33	74
E.N. CENTRAL	2,326	1,553	518	143	62	48	130	Albuquerque, N.M.	121	80	22	15	2	2	4
Akron, Ohio	58	40	14	1	1	2	9	Boise, Idaho	58	45	8	5	—	—	7
Canton, Ohio	47	34	12	—	—	1	3	Colorado Springs, Colo.	63	46	10	5	1	1	2
Chicago, Ill.	375	228	93	34	11	7	26	Denver, Colo.	100	60	20	5	5	10	7
Cincinnati, Ohio	105	69	22	3	6	5	5	Las Vegas, Nev.	274	183	58	22	9	2	16
Cleveland, Ohio	274	190	63	12	4	5	7	Ogden, Utah	30	22	4	4	—	—	2
Columbus, Ohio	203	129	50	13	7	4	12	Phoenix, Ariz.	222	136	52	15	9	10	15
Dayton, Ohio	133	95	26	7	—	5	6	Pueblo, Colo.	35	24	4	4	3	—	2
Detroit, Mich.	194	108	54	17	12	3	9	Salt Lake City, Utah	146	100	22	11	8	5	14
Evansville, Ind.	37	22	11	3	1	—	—	Tucson, Ariz.	143	106	26	6	2	3	5
Fort Wayne, Ind.	83	63	16	2	1	1	4	PACIFIC	1,793	1,275	337	106	45	30	170
Gary, Ind.	12	4	4	1	—	3	1	Berkeley, Calif.	24	20	3	—	—	1	2
Grand Rapids, Mich.	50	31	10	7	1	1	2	Fresno, Calif.	113	78	24	6	3	2	10
Indianapolis, Ind.	261	175	57	16	7	6	16	Glendale, Calif.	15	12	3	—	—	—	3
Lansing, Mich.	40	30	7	2	1	—	1	Honolulu, Hawaii	89	68	18	2	1	—	8
Milwaukee, Wis.	134	90	30	6	3	5	10	Long Beach, Calif.	58	39	16	1	2	—	7
Peoria, Ill.	41	37	2	1	1	—	2	Los Angeles, Calif.	346	247	55	28	7	9	40
Rockford, Ill.	71	50	12	6	3	—	4	Pasadena, Calif.	40	31	6	1	1	1	2
South Bend, Ind.	53	44	6	3	—	—	5	Portland, Oreg.	132	89	24	11	5	3	7
Toledo, Ohio	96	65	22	7	2	—	6	Sacramento, Calif.	182	124	44	8	3	3	15
Youngstown, Ohio	59	49	7	2	1	—	2	San Diego, Calif.	165	120	26	16	2	1	10
W.N. CENTRAL	592	393	126	39	16	16	31	San Francisco, Calif.	116	77	29	7	1	2	16
Des Moines, Iowa	44	34	8	1	1	—	4	San Jose, Calif.	167	123	24	11	6	3	27
Duluth, Minn.	22	18	4	—	—	—	—	Santa Cruz, Calif.	23	19	2	—	2	—	4
Kansas City, Kans.	36	20	8	6	1	1	—	Seattle, Wash.	163	113	34	7	7	2	11
Kansas City, Mo.	97	66	21	7	1	2	5	Spokane, Wash.	51	37	6	2	3	3	5
Lincoln, Nebr.	35	30	4	1	—	—	4	Tacoma, Wash.	109	78	23	6	2	—	3
Minneapolis, Minn.	53	29	13	4	2	5	2	TOTAL	12,282 [¶]	8,174	2,656	831	345	268	765
Omaha, Nebr.	61	42	11	4	2	2	4								
St. Louis, Mo.	101	55	27	9	6	2	6								
St. Paul, Minn.	67	46	13	2	2	4	3								
Wichita, Kans.	76	53	17	5	1	—	3								

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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