

Weekly

June 17, 2005 / Vol. 54 / No. 23

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

CDC recognizes blood lead levels (BLLs) of  $\geq 25 \ \mu g/dL$  in adults and  $\geq 10 \ \mu g/dL$  in children aged  $\leq 6$  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 (EPHP) conducted leadexposure assessments of school-based indoor shooting teams in the state, after a BLL of 44 µg/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 healthcare provider after reading about potential lead exposure at firing ranges. The BLL test result of 44  $\mu$ g/dL was reported to EPHP in accordance with the Alaska lead surveillance system, which requires laboratories to report all BLLs  $\geq 10 \,\mu g/dL$ . 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 µg/dL (range: 21.0-31.0 µg/dL). BLLs for 14 nonshooting family members were significantly (p<0.05) lower (mean: 3.5 µg/dL; range: 1.0–7.0 µg/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  $\mu$ g/dL, 23 to 11  $\mu$ g/dL, 22 to 16  $\mu$ g/dL, and 21 to 14  $\mu$ g/dL (retest mean: 14.3  $\mu$ g/dL; range: 11–16  $\mu$ g/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 schooloperated 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,

# INSIDE

- 580 Seroprevalence of Poliovirus Antibodies Among Children in a Dominican Community — Puerto Rico, 2002
- 581 Progress in Measles Control Zambia, 1999–2004
- 584 QuickStats

The *MMWR* series of publications is published by the Coordinating Center for Health Information and Service, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, GA 30333.

## **SUGGESTED CITATION**

Centers for Disease Control and Prevention. [Article Title]. MMWR 2005;54:[inclusive page numbers].

## **Centers for Disease Control and Prevention**

Julie L. Gerberding, MD, MPH Director

Dixie E. Snider, MD, MPH Chief Science Officer

Tanja Popovic, MD, PhD (Acting) Associate Director for Science

## Coordinating Center for Health Information and Service

Blake Caldwell, MD, MPH, and Edward J. Sondik, PhD (Acting) Directors

### National Center for Health Marketing\*

Steven L. Solomon, MD (Acting) Director

## **Division of Scientific Communications\***

Maria S. Parker (*Acting*) *Director* 

Mary Lou Lindegren, MD (Acting) Editor, MMWR Series

Suzanne M. Hewitt, MPA Managing Editor, MMWR Series

Douglas W. Weatherwax (Acting) Lead Technical Writer-Editor

> Stephanie M. Neitzel Jude C. Rutledge *Writers-Editors*

Lynda G. Cupell Malbea A. LaPete *Visual Information Specialists* 

Kim L. Bright, MBA Quang M. Doan, MBA Erica R. Shaver Information Technology Specialists

### Notifiable Disease Morbidity and 122 Cities Mortality Data

Patsy A. Hall Deborah A. Adams Felicia J. Connor Rosaline Dhara Donna Edwards Tambra McGee Pearl C. Sharp

\* 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  $\leq 5.0 \ \mu g/dL$ . Twenty-two (43%) of 51 shooters had BLLs  $\geq 10 \ \mu g/dL$  at ranges C, D, and E; eight (33%) of 24 shooters had BLLs  $\geq 25 \ \mu g/dL$  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  $<5 \mu g/dL$  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  $\mu$ g/dL for persons aged  $\geq$ 1 year and 1.1  $\mu$ g/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  $\mu$ g/dL at range E to 24.3  $\mu$ g/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  $\leq 5 \mu g/dL$ , had a modern, well-maintained ventilation system, followed a written maintenance protocol, and did not employ dry sweeping to clean the range.

		Indoor firi				She	ooting-team n	nembe	rs		N fam	onsho nily me	oting embers	
		Written	Dry	Assessment	Age	Init	tial BL	L testing	Rep	eat BL	L testing <sup>†</sup>	Initia	al BLL	. testing
Firing range	Range operation	maintenance protocol	sweeping performed	of ventilation system	range (yrs)	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)
В	Commercial	Yes	No	Adequate	13–16	8	2.1	(1.0-5.0)	_	Not p	performed	—	Not p	erformed
С	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) <sup>§</sup>		Not p	erformed
F	Volunteer-run	No	Yes	Not assessed	7–17	20	7.6	(2.0 - 13.0)	_	Not a	performed	5	2.6	(1.0 - 5.0)

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

\* Expressed as µg/dL.

<sup>T</sup>Testing repeated 3 months after discontinued use of firing range.

<sup>§</sup>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.
- 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.
- Lanphear BP, Dietrich K, Auinger P, Cox C. Cognitive deficits associated with blood lead concentrations <10 μg/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.
- 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.
- 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.
- 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.
- 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 poliofree 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-Karber method (5). Antibody levels were considered protective if titers were >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.	<b>(%)</b> †	
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 ≥1:8. <sup>+</sup> 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  $\geq 3$  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.

- 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.
- 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.
- 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.
- 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  $\leq 1$  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  $\leq 1$  year and measles incidence by age category, by year — Zambia, 1999–2004

	Reported coverage	Incidence <sup>†</sup>						
Year	≤1 yr (%)*	<5 yrs	≥5 yrs					
1999	74	5.8 (12,532)	1.1 (9,179)					
2000 <sup>§</sup>	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.

<sup>+</sup> 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  $\leq 1$  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  $\leq 1$  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. Casebased 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  $\geq$ 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  $\geq$ 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.  $\frac{1}{8}$  Campaign in 35 of 72 districts for children aged 9 months–4 years.

<sup>§</sup>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  $\leq 1$  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  $\geq$ 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  $\geq$ 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 measlescontrol 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.

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

- 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.
- World Health Organization. Strategies for reducing global measles mortality. Wkly Epidemiol Rec 2000;75:409–16.
- 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.
- 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.
- 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)."



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

Since the 1970s, increasing amounts of hospital care have been devoted to patients aged  $\geq$ 65 years. In 2003, 12% of the U.S. population was aged  $\geq$ 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



Beyond historical limits

\* 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 notifial	ole diseases. United States, cum	nulative, week ending June 11	. 2005 (23rd Week)*

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

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

<sup>1</sup> 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, for were indigenous and 11 were imported from another country.

Formerly Trichinosis.

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

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

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).

<u> </u>		Escher	<i>ichia coli</i> , Ente	rohemorrhagio						
			Shiga toxi	n positive,	Shiga toxi	n positive,				
	015	7:H7	serogroup	o non-0157	not sero	grouped	Giard	iasis	Gond	rrhea
Reporting area	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 N H	4	1	3		_	_	55 26	60 18	57 70	113
Vt.	3	_	_	—	_	_	68	47	21	38
Mass.	15	19	6	7	7	6	230	298	1,144	1,327
Conn.	13	5 5	9	12	_	_	137	50 167	972	405 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 N.J.	12	13	_	3	_	4	160	481 202	3,892	5,027
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 12	1	4	2	6	261 N	320 N	6,881 3 434	9,400 2,736
III.	14	29	1	1	_	_	171	342	6,767	8,683
Mich.	16	20	7	2	2	—	263	233	3,829	6,327
WN CENTRAL	71	88	15	16	9	11	796	758	7,335	7 105
Minn.	9	26	4	7	2	2	394	261	1,015	1,272
lowa	14	19			_		85	103	643	540
No. N. Dak.	25	3				3	167	218	3,983	3,649
S. Dak.	2	3	1		_	_	35	28	170	115
Nebr. Kans	5 15	11 10	3	2	3	3	42 72	54 83	369 926	472 1 086
S ATI ANTIC	71	56	10	11	- 33	8	921	1 089	31 090	33 654
Del.	_	_	Ň	N	Ň	Ň	11	21	345	413
Md.	10	13	2	2	_	2	68	41	2,866	3,423
Va.	4	4	4	6	8	_	219	156	3,166	3,852
W.Va.	1	1	—	—			13	12	329	363
S.C.	1	5	_	_	<u> </u>	4	31	39	3,708	4,022
Ga.	9	14	2	1	_	_	218	346	4,651	6,232
FIA.	46	18	2	2	8	2	341	444	8,167	7,571
E.S. CENTRAL Kv	29 7	38	_	2	5 4	4	160 N	154 N	10,004 1 498	10,829
Tenn.	11	10	_		1	3	80	76	3,454	3,503
Ala. Miss	11	11	_	1	_	_	80	78	2,161	3,449
WS CENTRAL	1/	34	2	1	2	1	94	117	18 966	10 008
Ark.	3	8		_		-	34	51	1,923	1,745
La.	2	1	2	—	2	—	14	20	4,569	5,205
Tex.	5	20	_	1	_	4	40 N	40 N	10,500	10,073
MOUNTAIN	51	55	10	15	1	_	472	523	4,807	4,883
Mont.	3	3	_	_	_	—	15	15	46	47
Wvo.	5	14	5 1	3	_	_	38	69 7	34 26	35 24
Colo.	15	13	1	1	_	_	166	169	1,244	1,400
N. Mex. Ariz	1	5	3 N	2 N	N	N	16 65	31 80	349 1 767	448 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
Oreg.	16	25	_	1	_	_	96	164	679	438
Calif.	33	39	—	—	_	—	907	763	13,693	12,655
Alaska Hawaii	4	1 3	_	_	_	_	32 26	26 39	228 391	286 609
Guam	N	Ň	_	_	_	_		2	_	105
P.R.	_	_	_	—	—	—	11	75	172	116
V.I. Amer Samoa									2	59
C.N.M.I.	_	Ŭ	_	Ŭ	_	Ŭ	_	Ŭ	_	Ŭ

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

Haemophilus influenzae, invasive												
	All a	iges		Age <5 years								
	All ser	otypes	Serc	type b	Non-se	rotype b	Unknown	serotype				
Reporting area	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 N H	4	7 12	_	_	_	2	1	_				
Vt.	6	5	_	_	_	<u> </u>	2	1				
Mass.	28	52	_	1	1	2	_	_				
Conn.	26	23	_	_	3	2	_	_				
MID. ATLANTIC	201	206	_	1	_	3	23	26				
Upstate N.Y. N Y City	57 34	68 45	_	1		3	5	3				
N.J.	40	36	_	_	_	_	6	2				
Pa.	70	57	—	—	—	—	5	12				
E.N. CENTRAL	134	190	1	_	1	8	7	26 10				
Ind.	36	30	_	_	1	4	1	1				
III. Miab	9	58		—	—		—	12				
Wis.	7	29	_		_		_	3				
W.N. CENTRAL	55	51	_	2	3	3	7	5				
Minn.	19	21	—	1	3	3	_	_				
Iowa 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. W Va	26 14	19 10	_	_	1	3	2	1				
N.C.	41	30	—	—	5	4		_				
S.C.	10 50	5	_	_	_	_	1	14				
Fla.	68	59	—	—	5	5	4	—				
E.S. CENTRAL	64	37	_	_	1	_	11	7				
Ky. Tenn	6 45	1 26	_		1	_	1 7					
Ala.	13	10	_	_	_	_	3	2				
Miss.					_							
W.S. CENTRAL Ark	63 2	37 1	1	1	4	4	6	1				
La.	26	9	1	—	2		6	1				
Okla. Tex	35	26 1	_	1	2	4	_	_				
MOUNTAIN	143	117	_	3	14	13	22	12				
Mont.		<u> </u>	—	_	_	_						
Idaho Wyo	3	5	_	_	_	_	1	2				
Colo.	27	27	—	—	_		4	3				
N. Mex. Ariz	13 74	25 43	_	_	4	4	1	4				
Utah	11	8	_	2		1	6	1				
Nev.	13	9	—	1	2	2	2	1				
PACIFIC Wash.	48	44 1	_	_	12	4	6	5 1				
Oreg.	20	22	_	_			4	2				
Calif. Alaska	21	14	_	_	12	4	1	1				
Hawaii	5	4	_	_			_	_				
Guam	_	—	—	—	—	—	—	—				
Р.К. V.I.	_	_	_	_	_	_	_	_				
Amer. Samoa	U	U	U	U	U	U	U	U				
U.IN.IVI.I.	—	U	_	U	_	U	_	0				

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

**588** 

VOI. 54 / NO. 23
------------------

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

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

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

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

(	Meningococcal disease									
	All sero	groups	Sero A, C, Y, a	group nd W-135	Serogr	oup B	Other se	erogroup	Serogrou	p unknown
Reporting area	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 N.H.	1 6	8	_	_	_	1	_	_	1 6	7 3
Vt.	3	1	—	_	_		—	_	3	1
Mass. R.I.	24	20	_	4	_	3	_	_	24	13
Conn.	9	1	1	—	—	_	_	—	8	1
MID. ATLANTIC	84	98	25	29	4	5	_	_	55 16	64 21
N.Y. City	10	16	_	_	_	_	_	_	10	16
N.J. Pa	23 29	18 35	22	24	1	2	_	_	23 6	18 9
E.N. CENTRAL	58	65	15	9	5	5	_	_	38	51
Ohio	28	38		3	5	4	—	_	23	31
III.	8	10	_	_	_	_	_	_	8	9
Mich.	15	6	15	6	—	_	_	—		 10
WIS.	40	10		_	1		_	_	37	30
Minn.	40 6	12	1	_	_	_	_	_	5	12
lowa Mo	11 12	9 13	1	_	1	2	_	_	10 11	7 12
N. Dak.		1		—	—	<u> </u>	—	—		1
S. Dak. Nebr.	2	1	_	_	_	_	_	_	2	1
Kans.	6	4	_	_	_	—	_	_	6	4
S. ATLANTIC	111	135	2	2	4	2	_	_	105	131
Md.	11	2	1	_	2	_	_	_	2 8	2
D.C.		5	—	2	—	_	_	—		3
va. W. Va.	4	4	_	_	_	_	_	_	4	4
N.C. S.C	11	20 13	1	_	2	2	_	_	8 11	18 13
Ga.	10	9	—	—	—	—	—	—	10	9
FIA.	48	66	_	_	_	_	_	_	48	66
E.S. CENTRAL Ky.	33 11	29	_	_	3	_	_	_	30	29
Tenn.	15	10	—	—	—	—	_	—	15	10
Miss.	4	10	_	_	_	_	_	_	4	10
W.S. CENTRAL	47	40	1	1	4	1	_	_	42	38
Ark.	8 21	10 24	_	1	2	_	_	_	8 19	10 23
Okla.	10	4	1	<u> </u>	2	1	—	—	7	3
lex.	8	2	_	_	_	_	—	_	8	2
MOUNTAIN Mont.	57	36	2	_	5	3	_	_	50	33
Idaho	1	4	_	—	_	—	_	_	1	4
vvyo. Colo.	12	3 11	2	_	_	_	_	_	10	11
N. Mex.	1	4	—	—		2	_	—	1	2
Utah	7	2	_	_	2	_	_	_	5	2
Nev.	4	5			1	1	—	—	3	4
PACIFIC Wash.	152 29	185 16	1	2 2	5 4	4 4	_	_	146 24	179 10
Oreg.	23	37	—	_	_	_	_	—	23	37
Galit. Alaska	93 1	125 2	_	_	_	_	_	_	93 1	125 2
Hawaii	6	5	—	—	1	—	—	—	5	5
Guam P R			—	_	_	_	_	_		
V.I.	<u>    4</u>	9	_	_	_	_	_	_	<del>4</del> —	9
Amer. Samoa C N M I	_	_	_	_	_	_	_	_	_	_

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

	Pertussis		Rabies	animal	Rocky M spotted	ountain d fever	Salmoi	nellosis	Shigellosis		
Reporting area	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 N H	12 18	3 21	24 4	28 8	N	N	46 54	35 37	2	2	
Vt.	49	40	25	9	—	_	39	20	4	2	
Mass.	280	577	186	89	-	6	368	341	47	66	
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	1	389	371	113	258	
N.J.	117	73	9 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	
Ind.	142	38	3	3	5	1	134	170	33	62	
III.	83	239	10	8	_	5	273	581	54	143	
Wis.	552	46 697		3	_	_	287 275	295 298	63	42 48	
W.N. CENTRAL	1,007	272	158	259	38	30	817	824	386	159	
Minn.	212	41	31	21	—	—	199	196	28	22	
Mo.	338 197	153	25	29 7	35	25	255	227	256	32 65	
N. Dak.	48	8	6	27	<u> </u>	_	11	15	2	1	
S. Dak. Nebr	1 93	11	27	56 63	2	5	58 68	29 54	15 26	6 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. Md	13 85	53	114	9 128	1 14	2	16 256	24 220	4	3 49	
D.C.	4	6	—		—		17	16	7	21	
Va.	79	59	248	203	8	1	314	280	41	42	
N.C.	25	43	218	291	87	103	40	284	63	137	
S.C.	161	39	5	63	6	17	161	165	35	227	
Ga. Fla.	14 71	12 37	102	148 205	5 9	25 6	405 1,267	484 1,072	187 332	296 502	
E.S. CENTRAL	212	58	59	60	34	41	645	742	612	263	
Ky.	58	10	6	11			118	121	88	34	
Ienn. Ala.	100	33	20 33	20 24	25	20	245 194	224 198	341 147	109	
Miss.	14	8	<u> </u>	5	_	10	88	199	36	27	
W.S. CENTRAL	177	207	460	575	13	34	762	1,289	756	1,489	
La.	93 15	15	15	24	1	12	213	229	25 53	151	
Okla.		13	48	65	5	19	126	112	328	226	
	69	1/1	397	486		_	226	798	350	1,093	
Mont.	357	483	91	49 5	1	3	35	55	248	326	
Idaho	58	17		—	1	1	46	60	1	5	
Colo.	665	247	8	6	2	1	189	194	41	54	
N. Mex.	62	67				_	61	90	31	58	
Ariz. Utah	428 189	95 31	/2 	38	13	1	245 117	266	129	169	
Nev.	23	10	_	_	_	—	59	75	25	20	
PACIFIC	944	664	56	82	5	3	1,762	1,970	662	621	
vvasn. Oreg	224 286	184 213	_	_	_	2	164 116	143 169	32 24	35	
Calif.	356	248	55	71	5	1	1,350	1,489	589	527	
Alaska Hawaii	20 58	10 9	1	11	_	_	19 113	28 141	5 12	5 22	
Guam	_	_	_	_	_	_	_	41	_	31	
P.R.	—	—	28	22	Ν	Ν	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	

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

 (23rd Week)\*

			1								
			Streptod	coccus pneum	oniae, invasiv	Cyrabilia					
	Streptococ invasive	cal disease, , group A	Drug res all ag	sistant, ges	Age <5	vears	Primary &	enital			
Reporting area	Cum. 2005	Cum.	Cum. 2005	Cum. 2004	Cum.	Cum. 2004	Cum.	Cum. 2004	Cum.	Cum.	
UNITED STATES	2 207	2 516	1 216	1 228	409	416	3 137	3 307	100	185	
	2,207	192	12	71	465	62	97	0,007	100	100	
Maine	5	4	N	N	40	2	1	02	_	_	
N.H.	7	12	_	_	3	N	5	3	_	_	
Vt.	7	5	6	6	3	1			—	—	
Mass.	57	87	6	18	40	38	60	50	_	_	
Conn.		58	Ŭ	40	U	19	19	20	_	_	
	510	440	120	05	70	60	404	407	10	01	
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	_	I	
E.N. CENTRAL	422	586	327	292	107	104	261	393	17	27	
Ind	46	66	210	208	50 29	50 22	33	27	∠ 1	1	
III.	82	169	2	_	24		99	151	3	3	
Mich.	171	162		N		Ν	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 Mo	N 45	IN 41	IN 27	IN Q	4	IN 8	63	4 47	1	1	
N. Dak.	2	8			1	1			_	_	
S. Dak.	15	8	2	3	_	_	—	—	_	_	
Nebr.	11	13	2		4	5	2	5	—	—	
Naris.	23	28	IN	IN	10	3	10	14			
S. ATLANTIC	448	500	481	626	48	31	796	825	21	32	
Md.	119	78		4	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 72	62 N	66 N	14	/	102	3			
S.C.	11	43		72	_	N	29	58	_	9	
Ga.	75	129	109	154	—	Ν	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	
Ala	82	91	89	58	_	N	75 59	64 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	
	11	140	IN .	IN (O	9	33	402	351	10	20	
MOUN IAIN Mont	351	262	44	13	32	26	1/3	168	14	24	
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. Δriz	23	58 116	N	N N	_	N	23	47	12	2	
Utah	48	22	25	7	1	_	4	3			
Nev.	1	1	1	2	_	_	45	8	_	_	
PACIFIC	48	42	_	1	_	_	596	649	4	37	
Wash.	Ν	Ν	Ν	Ν	N	Ν	62	38	_	_	
Oreg.	N	N	N	N		N	15	15			
oani. Alaska	_	_	IN	IN	IN	IN N	513	593	4	37	
Hawaii	48	42	_	1	_	_	2	3	_	_	
Guam	_	_	_	_	_	_	_	1	_	_	
P.R.	N	N	N	N	_	N	75	64	6	3	
V.I.	<u> </u>	<u> </u>			<u>.</u>	<u> </u>	<u> </u>	4		<u> </u>	
Amer. Samoa C N M I	U	U	U	U	<u> </u>	U	U	U	U 	U	

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

<u> </u>					Va	ricella	West Nile virus disease <sup>†</sup>				
	Tube	rculosis	Typho	id fever	(chic	kenpox)	Neuro	invasive	Non-neuroinvasive§		
Reporting area	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	Cum. 2005	Cum. 2004	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 N H	7	9 7		_	136 90	44	_	_			
Vt.	—	_	_	_	28	353	_	_	_		
Mass.	88	95	7	11	192	34	—	—	—		
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 N.J.	200	415	5 8	10	_	_	_		_		
Pa.	119	124	7	7	2,613	32		1	—		
E.N. CENTRAL	542	467	4	11	3,681	3,792	_	1	_		
Ohio	110	81 54	_	2	829	923 N	_	_	_		
III.	255	226	1	5	17	1	_	_	_		
Mich.	85	74	1	3	2,460	2,409		1	—		
WIS.	37	32	2	1	200	459			—		
Minn.	77	67	1	3		127	_		_		
Iowa	17	15	_		N	N	_		—		
Mo. N Dak	54	47	_	1	3 10	2 70		1	_		
S. Dak.	5	4	_	_	64	55	_	1	_		
Nebr.	16	11	—	—	—	—	—	—	N		
C ATLANTIC	22	1 061			070	1 209			IN		
Del.	925	1,061	12	9	978	1,398	_		_		
Md.	99	91	2	2	-		_	_	_		
D.C. Va	27 105	4 83	3	3	16 177	17 343	_	_	_		
W. Va.	10	10	_	_	602	764		_	Ν		
N.C.	87	106	2	2	177	N 270	_	_	_		
Ga.	128	288	2	_	_		_	_	_		
Fla.	374	385	3	2	_	—		1	—		
E.S. CENTRAL	233	233	1	4			_	1	_		
Ky. Tenn.	47 106	39 82	1	2	N	N	_	_	_		
Ala.	80	79	—	_	_	—		1	—		
Miss.	—	33	—	—	_	_		—	—		
W.S. CENTRAL	288 41	931	3	7	1,698	3,552	_	2	_		
La.	_		_	_	97	44		_	_		
Okla.	59	72			1 601	2 508	—		_		
	126	226	3	6	1,001	1 445		52			
Mont.	-				1,509	1,445	_	52	_		
Idaho	—		—	—				—	—		
Colo.	25	58	_	1	1,131	1,135	_	1	_		
N. Mex.	4	16	_	_	93	Ŭ	_		_		
Ariz. Utah	86 11	94 19	1	2	323	290	_	51	_		
Nev.	_	38	1	2	_		—	—	—		
PACIFIC	756	1,178	29	27	_	_		2	_		
Wash.	86	96 38	2	2	N	N	_	_	_		
Calif.	564	981	20	19	_	_	_	2	_		
Alaska	13	14			—	—	—	—	—		
	51	49	5	Ю	_		_	_	—		
Guam P.R.	_	35 21	_	_	77	65 240	_	_	_		
V.I.	<u> </u>		<del></del>	<del></del>			<u> </u>		—		
Amer. Samoa C N M I	U	U	U	U	U	U	U	U	_		
		0		0		0		0			

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

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)

Alge         Ages         Ass         Total           NEW ENDAM MASS         129         80         28         4		All causes, by age (years)							All causes, by age (years)							
NEW ENCLAND         S39         944         9         27         15         8         47         S.ATLANTIC         1.301         787         32         106         40         35         72           Bridgeord, Corn.         28         21         6         1         -         -         4         4         4         10         Attant, G.a.         198         111         25         26         6         5         15           Bridgeord, Corn.         40         36         10         1         -         -         4         Calabase         26         27         7         4         2         1         1         -         -         2         Nordek, Va.         55         28         27         10         1         2         2         4         2         3         1           Namel, Kama, Ka	Reporting Area	All Ages	<u>&gt;</u> 65	45-64	25–44	1–24	<1	P&I⁺ Total	Reporting Area	All Ages	<u>≥</u> 65	45-64	25–44	1–24	<1	P&I <sup>†</sup> Total
Bactor, Mass.         129         89         28         4         4         4         4         10         Alarta, Ga.         196         111         55         20         9         1         85         15           Fall River, Mass.         27         12         4         1         -         -         -         4         Baltmore, Mu, C         122         44         5         1         5         1         5         1         5         1         5         1         5         1         5         1         5         1         5         1         5         1         5         1         5         1         5         1         5         1         4         4         1         4         4         1         4         4         1         4         1         4         1         4         1         4         1         1         5         1         4         1         1         2         2         1         5         1         4         1         1         5         1         4         1         1         5         1         4         1         1         5         5         1	NEW ENGLAND	539	394	95	27	15	8	47	S. ATLANTIC	1,301	787	332	106	40	35	72
Endegency:       Common Common Market       20       12       4       1       -       -       -       A       Bailmore, Md.       202       12       34       25       6       5       15         Chanding, Market       15       10       1       1       -       -       A       Chanding, Market, MC, Pa       20       7       4       2       1       1         Lym, Market,       12       7       3       -       -       2       Norkit, Va.       55       29       17       4       2       1       1       1       -       -       2       1       3       1	Boston, Mass.	129	89	28	4	4	4	10	Atlanta, Ga.	196	111	55	20	9	1	8
Lamonga, Males. 137 13 1 1 $         -$	Bridgeport, Conn.	28	21	6	1	_	—	4	Baltimore, Md.	202	123	43	25	6	5	15
Call Hold         Call And Lowel, Mass.         2         2         2         2         3         1         -	Cambridge, Mass.	15	13	1	1	_	—		Charlotte, N.C.	110	73	26	5	4	2	11
$ \begin{array}{c} \model ham h, \model h$	Fall River, Mass.	27	22	4	1	-	_	4	Jacksonville, Fla.	152	87	46	/	4	1	4
$ \begin{array}{c} \mbox{rm}, \mbox{mass}, \mbox{ rm}, \mbox{rm}, \mbox{mass}, \mbox{rm}, \mbox{rm}$	Hartiord, Conn.	48	30	10	2	I	_	2	Norfolk Va	55	20	24	0	3	2	4
New Balan, Con.         Add         2         -         2         Samannan, Ca.         43         29         10         1         -         3         5           Providence, RI,         54         40         8         3         2         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1         3         1 <td1< td=""><td>Lowell, Mass.</td><td>12</td><td>7</td><td>3</td><td></td><td>2</td><td>_</td><td></td><td>Bichmond Va</td><td>59</td><td>29</td><td>20</td><td>7</td><td>1</td><td>2</td><td>5</td></td1<>	Lowell, Mass.	12	7	3		2	_		Bichmond Va	59	29	20	7	1	2	5
New Haon, Conn. 44 25 9 6 2 2 6 6 31. Petersburg, Fila. 45 27 10 2 2 2 4 4 2 Forvidence, H. Mass. 8 4 4 4	New Bedford, Mass.	24	18	3	1	2	_	2	Savannah. Ga.	43	29	10	1	_	3	5
Providence, RI,         54         40         8         3         2         1         35         Tampa, Fia.         213         142         44         15         6         6         13           Springfield, Mess.         84         4         7         5         2         -	New Haven, Conn.	44	25	9	6	2	2	6	St. Petersburg, Fla.	45	27	10	2	2	4	2
Somerview, Mass.         8         4         4         -         -         -         -         Washington, D.C.         99         50         33         12         3         1         3           Winerbary, Corn.         36         27         7         2         -         -         1         E.S. CENTRAL         971         638         216         61         34         21         55           Millo, ALLANTIC         2.18         1.469         149         52         36         128         Christinghan, Ala.         209         130         54         13         6         99         7         2         2         1         5         Christinghan, Ala.         209         130         55         1         -         1         Expendion. Ky.         631         35         17         -         1         1         Marpioner, Ya.         631         35         17         -         1	Providence, R.I.	54	40	8	3	2	1	3	Tampa, Fla.	213	142	44	15	6	6	13
Shringfield, Mass.         24         17         5         2         -         -         5         Wilnington, Del.         15         11         4         -	Somerville, Mass.	8	4	4	_	—	—	—	Washington, D.C.	99	50	33	12	3	1	3
Waterbury, Conn.         38         27         7         2         -         -         1         Esc.ENTFAL         971         638         216         61         34         21         55           MID.ATLANTIC         2,188         1,469         480         149         52         36         128         Chattanoga, Tenn.         71         58         14         4         1         -         -         1         Longular, N.         335         19         7         2         1         4         5         8         3         2         1         4         1         -         -         -         -         -         1         33         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -	Springfield, Mass.	24	17	5	2	_	—	5	Wilmington, Del.	15	11	4	_	_	_	1
Wardceslar, Mass.         bs         5/         v         2         1         5         Birmingham, Aia.         200         130         64         13         6         6         9           Albar, M. Y.         34         20         8         5         1         -         1         Knowling. Term.         77         58         14         4         6         -         1           Burningham, Yu.         21         1         -         1         Knowling. Term.         77         58         14         4         6         2         -         5           Burningham, Yu.         22         1         2         1         -         1         Knowling. Term.         77         58         14         4         6         2         7         1         4         1         2         -         5           Burningham, Yu.         23         18         1         1         -         -         N         N         100         N         N         Secondon, Rouge La         66         11         13         2         -         -         -         -         N         N         N         N         N         N         N	Waterbury, Conn.	36	27	7	2	_	_	1	E.S. CENTRAL	971	638	216	61	34	21	55
MID. ATLANTIC       2.489       1.469       480       149       52       36       128       Chattanoga, Term.       77       58       14       4       1       -       -         Allentown, Pa.       21       18       3       -       -       -       1       Itexaylor, Ky.       35       19       7       2       2       5         Camden, N.J.       22       14       4       2       1       1       3       Mobile, Ala.       66       40       15       7       1       4       5         Camden, N.J.       12       14       4       1       -       -       Nobile, Ala.       66       40       15       1       4       5       8         Jarsey Oty, N.J.       43       23       8       -       -       1       2       1       4       5       1       6       1       5       3       4       1       1       1       1       1       1       1       1       1       1       1       3       1       5       1       1       2       1       1       1       1       1       1       1       1       1       1	worcester, wass.	68	57	6	2	2	1	5	Birmingham, Ala.	209	130	54	13	6	6	9
Albany, N.Y.       34       20       8       5       1       -       1       Knowlie, Tenn.       111       75       24       4       6       2       1         Burlao, N.Y.       75       52       16       3       4       1       9       Mempin, Tenn.       803       127       43       14       12       7       15         Burlao, N.Y.       76       52       16       3       4       1       -       -       4       1       -       -       4       1       -       -       4       1       -       -       4       1       -       -       Nathillo, Tenn.       156       109       27       11       4       1       5       A       Nathillo, Tenn.       156       109       42       1       5       -	MID. ATLANTIC	2,188	1,469	480	149	52	36	128	Chattanooga, Tenn.	77	58	14	4	1	—	5
Allentown, Pa         21         18         3 $   -$	Albany, N.Y.	34	20	8	5	1	—	1	Knoxville, Tenn.	111	75	24	4	6	2	1
burlade, N. Y. 76 52 16 3 4 1 9 Weights, Ienn. 203 12/ 43 14 12 / 15 2 1 1 4 5 Each city, N. 221 4 4 2 1 1 3 Weights, Ienn. 203 12/ 43 14 12 / 15 2 1 4 1 1 2 1 2 1 1 3 Weights, Ienn. 203 12/ 43 14 12 / 15 2 2 1 8 Weights, Ienn. 203 12/ 43 14 12 / 15 2 2 1 8 Weights, Ienn. 203 12/ 43 14 12 / 15 2 2 1 8 Weights, Ienn. 203 12/ 43 14 12 / 15 2 2 1 8 Weights, Ienn. 203 12/ 43 14 12 / 15 2 2 1 8 Weights, Ienn. 203 12/ 43 14 12 / 15 2 2 1 8 Weights, Ienn. 203 12/ 43 14 12 / 15 2 2 1 8 Weights, Ienn. 203 12/ 43 14 12 / 15 2 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Allentown, Pa.	21	18	3	_			1	Lexington, Ky.	63	35	19	7	2	_	5
Lamber, N.J. 12 3 4 4 2 1 1 3 Montgomery, Ala. 69 6 2 20 6 1 - 4 4 - 4 5 7 6 15 2 2 1 1 4 5 7 6 15 7 5 2 6 1 7 6 1 5 7 6 1 7 7 7 7	Buttalo, N.Y.	76	52	16	3	4	1	9	Memphis, Ienn.	203	127	43	14	12	1	15
$ \begin{array}{c} \text{Life} \ PAI. \\ \text{Lorey City}, N.Y. \\ 109 \\ \text{Lorey City}, N.Y. \\ 100 \\ \text{Lorey City}, N.Y. \\ 100 \\ \text{Lorey City}, N.Y. \\ 101 \\ \text{Lorey City}, N.Y. \\ 111 \\ 100 \\ \text{Lorey City}, N.Y. \\ 111 \\ 100 \\ \text{Lorey City}, N.Y. \\ 111 \\ 110 \\ \text{Lorey City}, N.Y. \\ 111 \\ 111 \\ 110 \\ \text{Lorey City}, N.Y. \\ 1111 \\ 111 \\ 111 \\ 111 \\ 111 \\ 111 \\ 111 \\ 11$	Camden, N.J.	22	14	4	2	1	1	3	Mobile, Ala.	90	62	20	6	1	-	4
Taratage (Dit), N. J. 133 23 18 1 1 1 2 1 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 2 1 1 1 2 1	Elizabelli, N.J. Frig. Pa	12	34	2			1	2	Nashville Tenn	156	42	15	11	2	5	8
New York Chy, N.Y.         1.094         763         219         76         19         15         55         W.S. CENTRAL         1.380         863         326         108         42         41         55           Paterson, N.J.         U <td< td=""><td>Jersev City N J</td><td>43</td><td>23</td><td>18</td><td>1</td><td>1</td><td>_</td><td>_</td><td></td><td>150</td><td>103</td><td>21</td><td></td><td>-</td><td>5</td><td>0</td></td<>	Jersev City N J	43	23	18	1	1	_	_		150	103	21		-	5	0
Newark, N.J.       47       29       12       4       1       1       Austin, fex.       85       51       19       6       3       6       3         Philaselphia, Pa.       402       229       103       42       16       12       27       Corpus Christi, fex.       59       42       11       5       —       —       —       —       —       Corpus Christi, fex.       59       42       11       5       —       —       —       —       Corpus Christi, fex.       69       49       14       15       1       —       5         Reading, Pa.       33       22       7       4       —       —       -       1       Dailas, fex.       164       91       14       15       1       —       5         Schenectady, N.Y.       21       17       4       —       -       -       1       Little Rock, Ark.       71       40       18       7       5       1       2       8       Schenectady, NY.       22       14       6       1       —       2       1       Schenectady, NY.       12       14       6       1       -       2       1       Schenectady, NY.       14 <td>New York City, N.Y.</td> <td>1.094</td> <td>763</td> <td>219</td> <td>76</td> <td>19</td> <td>15</td> <td>55</td> <td>W.S. CENTRAL</td> <td>1,380</td> <td>863</td> <td>326</td> <td>108</td> <td>42</td> <td>41</td> <td>58</td>	New York City, N.Y.	1.094	763	219	76	19	15	55	W.S. CENTRAL	1,380	863	326	108	42	41	58
Paterson, N.J. U U U U U U U U U U C U U U U U U U U	Newark, N.J.	47	29	12	4	1	1	1	Austin, Iex.	85	51	19	6	3	6	3
Philadelphia, Pa.       402       229       103       42       16       12       27       Doulps Tisk.       Doulps Tisk.       Doulps Tisk.       Doulps Tisk.       164       94       11       5       1       1       5       1 </td <td>Paterson, N.J.</td> <td>U</td> <td>U</td> <td>U</td> <td>U</td> <td>U</td> <td>U</td> <td>U</td> <td>Baton Rouge, La.</td> <td>40</td> <td>31</td> <td>13</td> <td>2</td> <td>_</td> <td>1</td> <td>2</td>	Paterson, N.J.	U	U	U	U	U	U	U	Baton Rouge, La.	40	31	13	2	_	1	2
Pittsburgh, Pa. <sup>3</sup> 32       23       6       -       -       1       2       El'Paso, Tax       160       40       14       15       1       0       15         Reading, Pa. <sup>3</sup> 32       27       4       -       -       3       El'Paso, Tax       160       40       14       15       1       0       15       5         Rochester, N.Y.       11       17       4       -       -       -       1       1       2       8       7       8       15       10         Straton, Pa.       34       28       5       -       1       -       3       New Greens, La.       162       50       18       3       8       16         Straton, N.J.       22       12       6       3       -       1       -       San Antonio, Tex.       241       162       50       18       3       8       16       1       -       2       2       4       5       1       -       2       2       2       4       4       1       -       2       3       7       4       12       2       3       7       4       10       1       2	Philadelphia, Pa.	402	229	103	42	16	12	27	Dallas Tex	- 59 164	42	/1	15	11	6	11
Reading, Pa.       33       22       7       4       -       -       3       Fi Worth, Tex.       105       61       33       5       3       3       5         Schenetzdy, N.Y.       11       17       4       -       -       -       1       1       105       11       11       2       10       11       10       10       11       12       2       10       10       11       12       2       10	Pittsburgh, Pa.§	32	23	8		_	1	2	FL Paso Tex	69	49	14	5	1	_	5
Hochester, N.Y.       141       98       34       6       2       1       9       Houston, Tex.       316       188       27       8       15       10         Schenetcady, N.Y.       17       4       -       -       -       1       Lifte Rock, Ark.       71       40       18       78       27       8       15       1	Reading, Pa.	33	22	7	4	_		3	Ft. Worth. Tex.	105	61	33	5	3	3	5
Schemelcady, N. L.       21       17       4       -       -       -       -       1       -       2       -       1       -       3         Syracuse, N.Y.       70       51       15       1       1       2       8       8       2       -       1         Syracuse, N.Y.       70       51       15       1       1       2       8       8       2       -       1         Syracuse, N.Y.       17       13       3       -       1       -       2       2       24       8       8       2       -       1         Son Arton, Ohio       47       34       14       1       2       2       4       5       1       -       -       2       1       135       98       27       4       5       1       -       2       2       2       4       4       1       -       2       2       2       2       4       4       4       1       -       2       1       14       1       15       2       2       4       4       -       -       7       2       16       5       5       1       1	Rochester, N.Y.	141	98	34	6	2	1	9	Houston, Tex.	316	188	78	27	8	15	10
Oxaralue, N.Y.       70       50       50       71       1       2       8       New Orleans, La.       42       24       8       8       2       -       1         Trenton, N.J.       22       12       6       3       -       1       -       2       8       Antonio, Tex.       241       162       5       1       -       -       1       -       2       5       5       1       -       -       1       -       2       5       5       1       -       -       1       3       3       7       4       1       -       -       1       3       5       8       3       8       16       -       -       -       1       3       5       8       5       -       -       -       7       100       12       2       4       4       -       -       7       100       11       12       2       4       4       -       -       7       7       12       2       14       11       12       2       4       4       -       -       12       2       14       11       12       2       11       12       12	Scheneciady, N.Y.	21	17	4	_	-	_	2	Little Rock, Ark.	71	40	18	7	5	1	2
Granton, N.Y.10101011 <td>Svracuse NY</td> <td>34 70</td> <td>20 51</td> <td>5 15</td> <td>1</td> <td>1</td> <td>2</td> <td>8</td> <td>New Orleans, La.</td> <td>42</td> <td>24</td> <td>8</td> <td>8</td> <td>2</td> <td>_</td> <td>1</td>	Svracuse NY	34 70	20 51	5 15	1	1	2	8	New Orleans, La.	42	24	8	8	2	_	1
Utica, N.Y.       17       13       3       -       1       -       -       -       1       -       -       -       -       1       1       2       2       2       4       4       1       1       2       2       2       4       4       1       1       2       2       2       2       2       4       4       1       1       2       2       2       2       4       4       1       1       2       2       2       1       1       1       2       2       1       1       1       <	Trenton, N.J.	22	12	6	3	_	1	_	San Antonio, Tex.	241	162	50	18	3	8	16
Yonkers, N.Y.221471 $ -$ 1Index (Ma)1.559627451 $-$ E.N. CENTRAL2.3261.5535181436248130MOUNTAIN1.192800222692393374Akron, Ohio473412 $ -$ 133922692393374Canton, Ohio473412 $ -$ 133922692393374Chicago, III.752289334117262055107Cincinnati, Ohio105692236557Colo. Springs, Colo.100602055107Calumbus, Ohio2031295013741239267 $-$ 56Detroit, Mich.13395267 $-$ 567201015151015Calumbus, Ohio33161 $-$ 141 $-$ 2141002211814Tucson, Arizz141 $-$ 31Tucson, Arizz1431062623510Datroit, Mich.5031107112213514100 <t< td=""><td>Utica. N.Y.</td><td>17</td><td>13</td><td>3</td><td>_</td><td>1</td><td>_</td><td>2</td><td>Shreveport, La.</td><td>47</td><td>26</td><td>14</td><td>6</td><td>1</td><td>_</td><td>2</td></t<>	Utica. N.Y.	17	13	3	_	1	_	2	Shreveport, La.	47	26	14	6	1	_	2
E.N. CENTRAL2,3261,5535181436248130Akron, Ohio5840141129Canton, Ohio5840141129Chicago, III,375228933411726Chicago, III,375228933411726Cincinanti, Ohio2741906312457Cleveland, Ohio2031295013741230Columbus, Ohio2031295013741230Dayton, Ohio13395267-56Dayton, Ohio13395267-57Dayton, Ohio13395267-57Dayton, Ohio133952611Columbus, Ind.3363162114Fort Wayne, Ind.8363162114Lansing, Mich.4030721-1Beoria, III.71721-111Beoria, III.71721-11Carl, Maphe, Mich.13721-1Horal Wayne, Ind.134903063510Cokord	Yonkers, N.Y.	22	14	7	1	_	_	1	Tuisa, Okia.	135	98	27	4	5	1	_
$ \begin{array}{c} \text{Lincon, Drike} \\ \text{Lexical, Drike} \\ \text{Lexical, Orbit} \\ \text{Lincon, Nebr} \\ Lincon, N$	E N. CENTRAL	2 326	1 553	518	143	62	48	130	MOUNTAIN	1,192	802	226	92	39	33	74
Canton, Ohio 47 34 12 $-$ 1 7 3 Chicago, Ill. 375 228 93 34 11 7 26 Chicago, Ill. 375 228 93 34 11 7 26 Cleveland, Ohio 274 190 63 12 4 5 7 Cleveland, Ohio 133 95 26 7 $-$ 5 10 Datroi, Mich. 194 108 54 17 12 3 9 Datroi, Mich. 194 108 54 17 12 3 9 Eary Ind. 12 4 4 1 $-$ 3 1 Fort Wayne, Ind. 83 63 16 2 1 1 1 4 Fort Wayne, Ind. 83 63 16 2 1 1 1 4 Fort Wayne, Ind. 83 63 16 2 1 1 1 4 Fort Wayne, Ind. 12 4 4 4 1 $-$ 3 1 Created and apolis, Ind. 261 175 57 16 7 6 16 Grand Rapids, Mich. 50 31 10 7 1 1 2 Indianapolis, Ind. 261 175 57 16 7 6 16 Grand Rapids, Mich. 50 31 10 7 2 1 $-$ 1 1 2 Indianapolis, Ind. 261 175 57 16 7 6 16 Genving, Ind. 12 4 6 3 $-$ 4 1 Milwaukee, Wis. 134 90 30 6 3 5 10 South Bend, Ind. 53 44 6 3 $ -$ 5 Proving, Calif. 15 12 3 $ -$ 3 Milwaukee, Wis. 134 90 30 6 3 5 10 South Bend, Ind. 53 44 6 3 $ -$ 5 Proside, Ind. 12 6 3 $-$ 4 Kansas City, Mo. 97 66 21 7 1 2 7 2 $-$ 6 Subt Server A 4 8 1 1 $ -$ 4 Kansas City, Mo. 97 66 21 7 1 2 2 1 $-$ 1 2 Dayton, Nebr. 35 30 4 1 $ -$ 4 Columbus, Calif. 167 123 24 11 5 3 7 Soungstown, Ohio 59 49 7 2 2 1 $-$ 2 Mineapolis, Ind. 53 34 4 6 3 $ -$ 5 Prostage, Calif. 167 122 6 16 21 7 1 2 2 Dayton, Nebr. 35 30 4 1 $ -$ 4 Kansas City, Mo. 97 66 21 7 1 2 2 7 2 $-$ 6 Subt Law, Nebr. 61 42 11 4 2 2 4 3 Columbus, Nebr. 61 42 11 4 2 2 4 3 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus, Nebr. 61 42 11 4 4 2 5 4 Columbus,	Akron, Ohio	58	40	14	1	1	2	9	Albuquerque, N.M.	121	80	22	15	2	2	4
Chicago, III. 375 228 93 34 11 7 26 Colo. Springs, Colo. 63 46 10 5 1 1 2 Colo. Chicago, III. 375 228 93 34 11 7 7 26 Colo. 100 60 20 5 5 10 7 Colo. Chicago, III. 105 69 22 3 6 5 5 Colo. 100 7 1 1 2 2 Colo. 100 60 20 20 1 1 1 1 2 Colo. 100 60 20 1 1 1 1 2 Colo. 100 60 20 1 1 1 1 2 Colo. 100 60 20 1 1 1 1 2 Colo. 100 60 20 1 1 1 1 2 Colo. 100 60 20 1 1 1 1 2 Colo. 100 60 20 1 1 1 1 2 Colo. 100 60 20 1 1 1 1 2 Colo. 100 60 20 1 1 1 1 2 Colo. 100 60 20 1 1 1 1 2 Colo. 100 60 20 1 1 1 1 1 2 Colo. 100 60 20 1 1 1 1 1 2 Colo. 100 60 20 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Canton, Ohio	47	34	12	_	_	1	3	Boise, Idaho	58	45	8	5	_	_	7
$\begin{array}{c} \text{Cincinati, Ohio} & 105 & 69 & 22 & 3 & 6 & 5 & 5 \\ \text{Cleveland, Ohio} & 274 & 190 & 63 & 12 & 4 & 5 & 7 \\ \text{Cleveland, Ohio} & 274 & 190 & 63 & 12 & 4 & 5 & 7 \\ \text{Cleveland, Ohio} & 274 & 190 & 63 & 12 & 4 & 5 & 7 \\ \text{Cleveland, Ohio} & 133 & 95 & 26 & 7 & - & 5 & 6 \\ \text{Datrot, Mich.} & 194 & 108 & 54 & 17 & 12 & 3 & 9 \\ \text{Evansville, Ind.} & 37 & 22 & 11 & 3 & 1 & - & - \\ \text{Fort Wayne, Ind.} & 37 & 22 & 11 & 3 & 1 & - & - \\ \text{Fort Wayne, Ind.} & 38 & 63 & 16 & 2 & 1 & 1 & 4 \\ \text{Fort Wayne, Ind.} & 38 & 63 & 16 & 2 & 1 & 1 & 4 \\ \text{Fort Wayne, Ind.} & 12 & 4 & 4 & 1 & - & 3 & 1 \\ \text{Garay, Ind.} & 12 & 4 & 4 & 1 & - & 3 & 1 \\ \text{Garay, Ind.} & 12 & 4 & 4 & 1 & - & 3 & 1 \\ \text{Grand Rapids, Mich.} & 50 & 31 & 10 & 7 & 1 & 1 & 2 \\ \text{Garay, Ind.} & 12 & 4 & 4 & 1 & - & 3 & 1 \\ \text{Hainapolis, Ind.} & 261 & 175 & 57 & 16 & 7 & 6 & 16 \\ \text{Fresno, Calif.} & 113 & 78 & 24 & 6 & 3 & 2 & 10 \\ \text{Lansing, Mich.} & 40 & 30 & 7 & 2 & 1 & - & 1 \\ \text{Miwaukee, Wis.} & 134 & 90 & 30 & 6 & 3 & 5 & 10 \\ \text{Horolulu, Hawaii} & 89 & 68 & 18 & 2 & 1 & - & 8 \\ \text{Rockfort, III.} & 71 & 50 & 12 & 6 & 3 & - & 4 \\ \text{No. CENTRAL} & 592 & 393 & 126 & 39 & 16 & 16 & 31 \\ \text{Duluth, Minn.} & 22 & 18 & 4 & - & - & - & - \\ \text{Dus Minneapolis, Minn.} & 53 & 20 & 8 & 6 & 1 & 1 & - \\ \text{Dus Minneapolis, Minn.} & 53 & 29 & 13 & 4 & 2 & 5 \\ \text{Muncapolis, Minn.} & 53 & 29 & 13 & 4 & 2 & 5 \\ \text{Correlator, Nebr.} & 36 & 30 & 4 & 1 & - & - & - \\ \text{St. Louis, Mo.} & 101 & 55 & 27 & 9 & 6 & 2 & 4 \\ \text{Minneapolis, Minn.} & 67 & 46 & 13 & 2 & 2 & 4 & 3 \\ \text{Muncapolis, Minn.} & 67 & 46 & 13 & 2 & 2 & 4 & 3 \\ \text{St. Louis, Mo.} & 101 & 55 & 27 & 9 & 6 & 2 & 6 \\ \text{St. Paul, Minn.} & 67 & 46 & 13 & 2 & 2 & 4 & 3 \\ \text{Mineapolis, Minn.} & 67 & 46 & 13 & 2 & 2 & 4 & 3 \\ \text{Mineapolis, Minn.} & 67 & 46 & 13 & 2 & 2 & 4 & 3 \\ \text{Mineapolis, Minn.} & 67 & 46 & 13 & 2 & 2 & 4 & 3 \\ \text{Mineapolis, Minn.} & 67 & 46 & 13 & 2 & 2 & 4 & 3 \\ \text{Mineapolis, Minn.} & 67 & 46 & 13 & 2 & 2 & 4 & 3 \\ \text{Mineapolis, Minn.} & 67 & 46 & 13 & 2 & 2 & 4 & 3 \\ \text{Mineapolis, Minn.} & 67 & 46 $	Chicago, III.	375	228	93	34	11	7	26	Colo. Springs, Colo.	100	46	10	5	1	10	2
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Cincinnati, Ohio	105	69	22	3	6	5	5	Las Vegas Nev	274	183	20	22	о 0	2	16
Columbus, Ohio20312950137412Dayton, Ohio13395267 $-$ 56Detroit, Mich.19410854171239Evansville, Ind.37221131 $ -$ Fort Wayne, Ind.8363162114Gary, Ind.12441 $-$ 31Grand Rapids, Mich.5031107112Indianapolis, Ind.26117557167616Peroin, III.4137211 $-$ 2Rockford, III.71501263 $ -$ Peoria, III.71501263 $ -$ South Bend, Ind.5949721 $-$ 2Voungstown, Ohio5949721 $-$ 2Voungstown, Ohio5949721 $-$ 2Suth Bend, Ind.53244833Des Moines, Iowa4434811 $-$ 2Voungstown, Ohio5949721 $-$ 2San Trancisco, Calif.165120261621Duluth, Minn.221841 $ -$ 4	Cleveland, Ohio	274	190	63	12	4	5	7	Orden Utah	30	22	4	4			2
Dayton, Onio13395267-56Pueblo, Colo.3524443-2Detroit, Mich.108541712399Salt Lake City, Utah14610022118514Fort Wayne, Ind.83631621144106266235Garay, Ind.12441-31147712371064530170Grand Rapids, Mich.503110711222312Indianapolis, Ind.2611755716761616163211313310Peoria, III.413721-1-211311031Rockford, III.4137211-221311031103110101010101010101010101010101010101010	Columbus, Ohio	203	129	50	13	7	4	12	Phoenix. Ariz.	222	136	52	15	9	10	15
Detroit, Mich.194106541712331 $   -$ <th< td=""><td>Dayton, Onio</td><td>133</td><td>100</td><td>26</td><td>17</td><td>10</td><td>5</td><td>6</td><td>Pueblo, Colo.</td><td>35</td><td>24</td><td>4</td><td>4</td><td>3</td><td>_</td><td>2</td></th<>	Dayton, Onio	133	100	26	17	10	5	6	Pueblo, Colo.	35	24	4	4	3	_	2
L'arisville, inc.5722115111111Gary, Ind.1244131PACIFIC1,7931,2753371064530170Grand Rapids, Mich.5031107112Berkeley, Calif.113782463312Lansing, Mich.4030721-11Glendale, Calif.151233Milwaukee, Wis.134903063510Icos Angeles, Calif.1378246321-8Peoria, III.4137211-21-21-7112-77112-77316112-77112-77112-77112-77112-72-611112-77111221112-71112-71111111111111111 <td>Evansville Ind</td> <td>37</td> <td>22</td> <td>11</td> <td>3</td> <td>12</td> <td>- 3</td> <td>9</td> <td>Salt Lake City, Utah</td> <td>146</td> <td>100</td> <td>22</td> <td>11</td> <td>8</td> <td>5</td> <td>14</td>	Evansville Ind	37	22	11	3	12	- 3	9	Salt Lake City, Utah	146	100	22	11	8	5	14
Gary, Ind.       12       4       1       -       3       1       PACIFIC       1,793       1,275       337       106       45       30       170         Grand Rapids, Mich.       50       31       10       7       1       1       2       Berkeley, Calif.       134       24       6       3       2       10         Lansing, Mich.       40       30       7       2       1       -       1       Glendale, Calif.       113       78       24       6       3       2       10         Lansing, Mich.       40       30       7       2       1       -       1       Glendale, Calif.       113       78       24       6       3       2       10         Peoria, Ill.       41       37       2       1       -       2       Calif.       58       39       16       1       2       -       7       7       40         South Bend, Ind.       53       44       6       3       -       -       5       Pasadena, Calif.       340       31       6       1       1       2       -       7       9       40       24       44       8       3	Fort Wayne, Ind.	83	63	16	2	1	1	4	Tucson, Ariz.	143	106	26	6	2	3	5
Grand Rapids, Mich.       50       31       10       7       1       1       2       Berkeley, Calif.       24       20       3       —       —       1       2         Indianapolis, Ind.       261       175       57       16       7       6       16       16       Fresno, Calif.       113       78       24       6       3       2       10         Lansing, Mich.       40       30       7       2       1       —       1       Glendale, Calif.       113       78       24       6       3       2       10         Milwaukee, Wis.       134       90       30       6       3       5       10       Honolulu, Hawaii       89       68       18       2       1       —       3       —       4       Long Beach, Calif.       58       39       16       1       2       —       7         South Bend, Ind.       53       44       6       3       —       —       4       Los Angeles, Calif.       40       31       6       1       1       1       2       —       7       Portland, Oreg.       132       89       24       11       5       3       7	Garv. Ind.	12	4	4	1	_	3	1	PACIFIC	1.793	1.275	337	106	45	30	170
Indianapolis, Ind.       261       175       57       16       7       6       16       Fresno, Calif.       113       78       24       6       3       2       10         Lansing, Mich.       40       30       7       2       1       -       1       Glendale, Calif.       15       12       3       -       -       -       3         Milwaukee, Wis.       134       90       30       6       3       5       10       Glendale, Calif.       15       12       3       -       -       -       3         Peoria, III.       41       37       2       1       1       -       2       Long Beach, Calif.       346       247       55       28       7       9       40         South Bend, Ind.       53       44       6       3       -       -       6       Portland, Oreg.       132       89       24       11       5       3       7         Youngstown, Ohio       59       49       7       2       1       -       2       Sacramento, Calif.       182       124       44       8       3       3       15         Sanose, Iowa       44	Grand Rapids, Mich.	50	31	10	7	1	1	2	Berkeley, Calif.	24	20	3	_	_	1	2
Lansing, Mich.4030721-1Glendale, Calif.151233Milwaukee, Wis.134903063510Honolulu, Hawaii89681821-8Peoria, III.4137211-2Long Beach, Calif.58391612-7Rockford, III.715012635Pasadena, Calif.34624755287940South Bend, Ind.5344636Portland, Oreg.132892411537Youngstown, Ohio5949721-2Sacramento, Calif.16512026162110Des Moines, Iowa4434811San Francisco, Calif.116772971216San Jose, Calif.16712324116327Santa Cruz, Calif.231924Kansas City, Kans.36208611Santa Cruz, Calif.16712324116327Kansas City, Mo.9766217125<	Indianapolis, Ind.	261	175	57	16	7	6	16	Fresno, Calif.	113	78	24	6	3	2	10
Milwaukee, Wis.       134       90       30       6       3       5       10       Honolulu, Hawaii       89       68       18       2       1        8         Peoria, III.       41       37       2       1       1        2       Long Beach, Calif.       58       39       16       1       2        7         Rockford, III.       71       50       12       6       3        4       Long Beach, Calif.       346       247       55       28       7       9       40         South Bend, Ind.       53       44       6       3         5       Pasadena, Calif.       40       31       6       1       1       1       2         Toledo, Ohio       96       65       22       7       2        6       Sarramento, Calif.       182       14       48       3       3       15         Youngstown, Ohio       59       49       7       2       1        2       Sarramento, Calif.       165       120       26       16       2       1       10         Des Moines, Iowa       44       34	Lansing, Mich.	40	30	7	2	1	—	1	Glendale, Calif.	15	12	3	—	_	_	3
Peora, III.       41       37       2       1       1       -       2       Long Beach, Calif.       58       39       16       1       2       -       7         Rockford, III.       71       50       12       6       3       -       4       Los Angeles, Calif.       58       39       16       1       2       -       7         Rockford, III.       53       44       6       3       -       -       5       Pasadena, Calif.       40       31       6       1       1       1       2       -       7       9       40         South Bend, Ind.       53       44       6       3       -       -       5       Pasadena, Calif.       40       31       6       1       1       1       2       -       7       9       40         South Bend, Ind.       59       49       7       2       1       -       2       Pasadena, Calif.       182       124       44       8       3       3       15       37       Sacramento, Calif.       182       124       44       8       3       31       15       Saradena, Calif.       1167       123       24       1	Milwaukee, Wis.	134	90	30	6	3	5	10	Honolulu, Hawaii	89	68	18	2	1	_	8
Hockford, III.       71       50       12       6       3       -       4       Los Angeles, Call.       346       247       55       28       7       9       40         South Bend, Ind.       53       44       6       3       -       -       5       Pasadena, Calif.       40       31       6       1       1       1       2         South Bend, Ind.       53       44       6       3       -       -       5       Pasadena, Calif.       40       31       6       1       1       1       2         Youngstown, Ohio       59       49       7       2       1       -       2       Portland, Oreg.       132       89       24       11       5       3       7         Youngstown, Ohio       59       49       7       2       1       -       2       Sacramento, Calif.       182       124       44       8       3       3       15       San Diego, Calif.       165       120       26       16       2       1       1       2       163       133       4       2       2       4       3       3       15       San Diego, Calif.       167       123	Peoria, III.	41	37	2	1	1	_	2	Long Beach, Calif.	58	39	16	1	2		10
South Bend, Ind.       33       44       0       3       -       -       -       -       -       -       1	Rockiora, III.	/ I 52	50	12	2	3	_	4	Los Angeles, Calif.	340	247	55	∠8 1	1	9	40
No. CENTRAL       592       393       126       39       16       16       31         Des Moines, Iowa       44       34       8       1       1        4       4       8       3       3       15         Duluth, Minn.       22       18       4              5aramento, Calif.       165       120       26       16       2       1       10         San Diego, Calif.       165       120       26       16       2       1       10         San Diego, Calif.       116       77       29       7       1       2       16         San Sity, Kans.       36       20       8       6       1       1        4       Santa Cruz, Calif.       167       123       24       11       6       3       27         Kansas City, Kans.       36       20       8       6       1       1        4       Santa Cruz, Calif.       163       113       34       7       7       2       11         Kansas City, Kans.       53       30       4       1        -       4<	Toledo Ohio	96	65	22	7	2	_	6	Portland Oreg	132	89	24	11	5	3	7
W.N. CENTRAL       592       393       126       39       16       16       31         Des Moines, Iowa       44       34       8       1       1       -       4         Duluth, Minn.       22       18       4       -       -       -       -       -         Kansas City, Kans.       36       20       8       6       1       1       -       4         Kansas City, Kans.       36       20       8       6       1       1       -       -       -       -       San Diego, Calif.       167       123       24       11       6       3       27         Kansas City, Kans.       36       20       8       6       1       1       -       -       San Jose, Calif.       167       123       24       11       6       3       27         Kansas City, Kans.       36       20       8       6       1       1       -       San Jose, Calif.       163       113       34       7       7       2       11         Lincoln, Nebr.       31       34       2       5       2       7       3       5       3       5       3       5	Youngstown Ohio	59	49	7	2	1	_	2	Sacramento Calif	182	124	44	8	3	3	15
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 Francisco, Calif.       116       77       29       7       1       2       16         Dubuth, Minn.       22       18       4       - <td></td> <td>500</td> <td>000</td> <td>400</td> <td>-</td> <td></td> <td>10</td> <td>-</td> <td>San Diego, Calif.</td> <td>165</td> <td>120</td> <td>26</td> <td>16</td> <td>2</td> <td>1</td> <td>10</td>		500	000	400	-		10	-	San Diego, Calif.	165	120	26	16	2	1	10
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	W.N. CENTRAL	592	393	126	39	16	16	31	San Francisco, Calif.	116	77	29	7	1	2	16
Control, Minin.       C.Z.       10       4       —       Santa Cruz, Calif.       23       19       2       —       2       —       4         Kansas City, Mo.       97       66       21       7       1       2       5       5       5       113       34       7       7       2       11       Spokane, Wash.       51       37       6       2       3       3       5         Minneapolis, Minn.       53       29       13       4       2       5       2       7       7       2       11       Spokane, Wash.       109       78       23       6       2       —       3       35       7       76       2       3       3       5       7       7       2       11       Spokane, Wash.       109       78       23       6       2	Duluth Minn	44 00	34 19	0 /			_	4	San Jose, Calif.	167	123	24	11	6	3	27
Kansas City, Mo.       97       66       21       7       1       2       5       Seattle, Wash.       163       113       34       7       7       2       11         Lincoln, Nebr.       35       30       4       1       —       —       4       Spokane, Wash.       51       37       6       2       3       3       5         Minneapolis, Minn.       53       29       13       4       2       5       2       Tacoma, Wash.       109       78       23       6       2       3       3       5         Omaha, Nebr.       61       42       11       4       2       2       4       TOTAL       12,282 <sup>11</sup> 8,174       2,656       831       345       268       765         St. Louis, Mo.       101       55       27       9       6       2       6       2       3       3       5       765       831       345       268       765       831       345       268       765       831       345       268       765       831       345       268       765       831       345       268       765       831       345       268       765	Kansas City Kans	36	20	4 8	6	1	1		Santa Cruz, Calif.	23	19	2	—	2		4
Lincoln, Nebr. 35 30 4 1 4 Spokane, Wash. 51 37 6 2 3 3 5 Minneapolis, Minn. 53 29 13 4 2 5 2 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 Wichtia Kapp. 76 53 17 5 1 7 St. Course Address St. Course A	Kansas City, Mo.	97	66	21	7	1	2	5	Seattle, Wash.	163	113	34	7	7	2	11
Minneapolis, Minn.       53       29       13       4       2       5       2       Iacoma, Wash.       109       78       23       6       2	Lincoln, Nebr.	35	30	4	1		_	4	Spokane, Wash.	51	37	6	2	3	3	5
Omaha, Nebr.       61       42       11       4       2       2       4       TOTAL       12,282 <sup>1</sup> 8,174       2,656       831       345       268       765         St. Louis, Mo.       101       55       27       9       6       2       6         St. Paul, Minn.       67       46       13       2       2       4       3         Wichtig Kapp       76       51       17       5       1       2       2       4       3	Minneapolis, Minn.	53	29	13	4	2	5	2	racoma, wash.	109	78	23	6	2	_	3
St. Louis, Mo. 101 55 27 9 6 2 6 St. Paul, Minn. 67 46 13 2 2 4 3 Wichtig Kapp 76 52 17 5 1 2	Omaha, Nebr.	61	42	11	4	2	2	4	TOTAL	12,282¶	8,174	2,656	831	345	268	765
St. Paul, Minn. 67 46 13 2 2 4 3	St. Louis, Mo.	101	55	27	9	6	2	6								
	St. Paul, Minn.	67	46	13	2	2	4	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.

<sup>†</sup> Pneumonia and influenza.

<sup>§</sup> 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.

<sup>1</sup> Total includes unknown ages.

The Morbidity and Mortality Weekly Report (MMWR) Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy each week, send an e-mail message to *listserv@listserv.cdc.gov*. The body content should read *SUBscribe mmwr-toc*. Electronic copy also is available from CDC's World-Wide Web server at *http://www.cdc.gov/mmwr* or from CDC's file transfer protocol server at *ftp://ftp.cdc.gov/pub/publications/mmwr*. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone 202-512-1800.

Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to Editor, *MMWR* Series, Mailstop K-95, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone 888-232-3228.

All material in the MMWR Series is in the public domain and may be used and reprinted without permission; citation as to source, however, is appreciated.

All MMWR references are available on the Internet at http://www.cdc.gov/mmwr. Use the search function to find specific articles.

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

References to non-CDC sites on the Internet 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 these sites. URL addresses listed in *MMWR* were current as of the date of publication.

☆U.S. Government Printing Office: 2005-733-116/00095 Region IV ISSN: 0149-2195