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WEEKLY REPORT

Missed Opportunities for Prevention of Tuberculosis Among Persons With HIV Infection — Selected Locations, United States, 1996–1997

Public health contact investigations are conducted to find persons who have been exposed to patients with active tuberculosis (TB) and to evaluate and treat those contacts for TB infection and active TB. Persons in close (i.e., prolonged, frequent, or intense) contact with patients with active TB are at high risk for TB infection. The risk for TB infection is increased greatly if the close contact is infected with human immunodeficiency virus (HIV) (*1,2*). Isoniazid (INH) treatment for latent TB infection (LTBI) reduces the risk for developing active TB by 41%–92% (*1*). This study examined the clinic records of TB programs to determine whether these programs used recommended practices to manage HIV-positive persons exposed to TB (*3–8*). The study suggests TB programs need to review their contact investigation policies, procedures, and outcomes to reduce missed opportunities for preventing active TB among HIV-positive close contacts.

Study investigators collected data during June 1998–January 1999 site visits. Eleven U.S. urban areas were selected by the highest number of contacts completing LTBI treatment. After case reports were linked to personal identifiers, study staff reviewed the clinic records for 6225 close contacts to 1080 sputum-smear–positive TB patients reported to CDC during July 1996–June 1997.

Of the 6225 close contacts, HIV status was unknown for 5415 (87%). Of the 810 close contacts with known HIV status, 109 (13%) were HIV-infected, of whom 79 (72%) received a chest radiograph; 14 (13%) had TB symptoms (e.g., cough, night sweats, and weight loss); 90 (83%) received an initial tuberculin skin test (TST); and nine (8%) did not receive a chest radiograph or an initial TST. Forty (53%) of 75 TST-negative contacts did not receive follow-up TSTs; 21 (28%) received neither a follow-up TST nor a chest radiograph. Fourteen (13%) of 109 HIV-positive contacts were identified as having active TB compared with 120 (2%) of 6116 HIV-negative contacts or contacts with unknown HIV status. HIV-infected close contacts were less likely to be TST-positive than HIV-negative contacts or contacts with unknown HIV status (14% and 36%, respectively).

Among 95 HIV-infected contacts without active TB, 11 (92%) of 12 TST-positive contacts were placed on LTBI treatment compared with 19 (23%) of 83 TST-negative or TST-unknown contacts. A median of 50 days passed before starting an HIV-positive contact on LTBI treatment compared with 33 days for HIV-negative contacts or contacts with unknown HIV status. TB programs employing public health nurses to conduct investigations placed 11 (92%) of 12 TST-negative or TST-unknown contacts on LTBI

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treatment compared with eight (11%) of 71 at programs that employ TB outreach workers.

Of the 30 HIV-positive contacts started on LTBI treatment, approximately half (14) completed treatment. Directly observed treatment (DOT) for LTBI was given to three HIV-positive contacts; two completed treatment. During the course of LTBI treatment, 10 HIV-infected contacts had interruptions of >1 month (when treatment was self-administered) or >2 weeks (when placed on DOT); three of the 10 completed treatment. Of 16 HIV-positive close contacts who did not complete treatment, six (38%) refused or were unwilling to continue treatment, two (12%) were lost to follow-up, one (6%) had alcoholism, one (6%) could not tolerate medication, and six (38%) had undocumented reasons.

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Editorial Note: The study showed that few close contacts were assessed for HIV and that one quarter of those known to be HIV-infected were not screened completely for TB. Of eligible HIV-positive contacts, a third started and a sixth completed LTBI treatment. Because HIV positivity alters the approach to TB screening and the use of LTBI treatment, early knowledge by the health-care provider of a close contact's HIV status is essential. Active TB is curable and can be prevented in HIV-positive contacts when health-care providers know a close contact's HIV status and follow CDC guidelines for TB screening and treatment and facilitate adherence to TB treatment.

Health-care providers should assess all close contacts for HIV infection by asking about their serostatus and offering voluntary HIV counseling and testing when the status is unknown (*8*). TB staff should be trained to offer HIV counseling and testing to close contacts or should collaborate with HIV programs to offer these services. The use of rapid diagnostic tests may facilitate timely assessment of HIV status. All HIV-positive close contacts should be evaluated for active TB by medical history, symptom screening, and chest radiograph, and those with an abnormal chest radiograph or symptoms should receive a sputum examination (*5*). HIV-positive close contacts should receive an initial TST regardless of previous TST results (*5*); those with initial TST-negative reactions should receive a follow-up TST 10–12 weeks after last exposure to the patient with active TB (*4*). As soon as active TB is excluded, LTBI treatment should begin for all HIV-infected close contacts regardless of age, TST results, or history of previous LTBI treatment (*5*). Most HIV-positive close contacts should complete a full course of LTBI treatment (*9*). Because the HIV-positive population is less likely to react to TST and more likely to have atypical chest radiographs, health-care providers need to be diligent in diagnosing TB infection and active TB. Two treatment regimens, 9 months of INH (to be taken with pyridoxine to prevent peripheral neuropathy) or 2 months of daily rifampin (or rifabutin for those taking protease inhibitors or certain nonnucleoside reverse transcriptase inhibitors) and pyrazinamide, are preferred for the treatment of HIV-positive persons with LTBI (*10*). The use of 2-month LTBI regimens for HIV-infected adults may facilitate treatment implementation and increase completion rates (*10*). However, INH is the only recommended regimen for children and pregnant women (*5*).

The findings in this study are subject to at least three limitations. First, because the study relied on existing clinic records, documentation of HIV status often was incomplete

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or nonexistent. Laws restricting the recording of HIV status in databases may have affected such documentation. Second, the timing of health-care provider knowledge of HIV status and chest radiograph results was unknown because these dates were not collected and often were not recorded. Third, this study was designed to represent urban TB programs not rural programs or programs not using LTBI treatment.

These findings indicate a need for better incorporation of HIV assessment into contact investigation procedures and improved coordination between local TB and HIV programs to facilitate voluntary HIV counseling, testing, and follow-up for HIV-infected close contacts. Health-care providers and HIV-infected persons should be aware of optimal management of close contacts and of the benefits of prompt and well-supervised LTBI treatment to prevent active TB.

References

1. Ferebee SH. Controlled chemoprophylaxis trials in tuberculosis: a general review. Advances in Tuberculosis Research 1970;17:28–106.
2. Markowitz N, Hansen NI, Hopewell PC, et al. Incidence of tuberculosis in the United States among HIV-infected persons. Ann Intern Med 1997;126:123–32.
3. American Thoracic Society. Treatment of tuberculosis and tuberculosis infection in adults and children. Am J Respir Crit Care Med 1994;149:1370.
4. CDC. Core curriculum on tuberculosis: what the clinician should know. Atlanta, Georgia: US Department of Health and Human Services, Public Health Service, CDC, 1994:33–4.
5. CDC. Prevention and treatment of tuberculosis among patients infected with human immunodeficiency virus: principles of therapy and revised recommendations. MMWR 1998;47(no. RR-20):37–41.
6. CDC. Self-study modules on tuberculosis: contact investigations for tuberculosis. Atlanta, Georgia: US Department of Health and Human Services, CDC, 1999.
7. CDC. 1997 USPHS/IDSA guidelines for the prevention of opportunistic infections in persons infected with human immunodeficiency virus. MMWR 1997;46(no. RR-12):10.
8. American Thoracic Society. Control of tuberculosis in the United States. American Review of Respiratory Disease 1992;6:1623–33.
9. CDC. Anergy skin testing and preventive therapy for HIV-infected persons: revised recommendations. MMWR 1997;46(no. RR-15):7.
10. American Thoracic Society and CDC. Targeted tuberculin testing and treatment of latent tuberculosis infection. Am J Respir Crit Care Med 2000;161(part 2):S221–S247.

Assessment of Infectious Disease Surveillance — Uganda, 2000

In 1998, member states of the African region of the World Health Organization (WHO-AFRO) adopted the integrated disease surveillance (IDS) strategy to strengthen national infectious disease surveillance systems (*1*). The first step of the IDS strategy is to assess infectious disease surveillance systems. This report describes the results of the assessment of these systems of the Uganda Ministry of Health (UMoH) and indicates that additional efforts are needed to develop the basic elements of an effective surveillance system.

In February 2000, UMoH, Makerere University Institute of Public Health, WHO, and CDC performed a cross-sectional survey to determine the performance and support of infectious disease surveillance systems conducted by UMoH at health facilities (e.g., dispensaries, health centers, and hospitals) and district health offices. The six systems assessed were the Health Management Information System, the Weekly Epidemiological Report, Tuberculosis/Leprosy, HIV/AIDS, Polio/Acute Flaccid Paralysis, and Guinea

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Worm Eradication.

The assessment covered 52 (3%) of 1639 health facilities and eight (18%) of the 45 district health offices (two in each of the four geographic zones of Uganda). The districts were selected by UMoH on the basis of timeliness of reporting. Three or four health facilities were selected randomly within each district. Performance was measured using surveillance indicators (i.e., detection, registration, and confirmation of case-patients; reporting; data analysis and use; and epidemic preparedness and response) and infrastructural and managerial support (i.e., feedback, performance reviews, training, and resources) of surveillance activities using a protocol developed by WHO-AFRO with support from CDC (*2*).

Health Facilities

Outpatient clinic registers were present in 48 (92%) of the 52 health facilities and were filled out correctly in 29 (56%) (Table 1). Eighteen (35%) health facilities had the official standardized case definition booklet and an adequate supply of reporting forms during the 6 months before the assessment. The monthly report for the number of case-patients seen at a health facility for a selected disease (e.g., malaria or measles) was in agreement with the clinic register in 15 (29%) of the health facilities. Of the 52 health facilities, 27 (51%) had the laboratory capacity to confirm a diagnosis of malaria, 23 (44%) to confirm tuberculosis, and 11 (21%) to confirm meningococcal meningitis;

TABLE 1. Indicators of performance and support of infectious disease surveillance activities at health facilities* — Uganda, 2000

Indicator	No.	(%)
Case detection, registration, and reporting		
Outpatient clinic register	48	(92)
Register correctly filled out	29	(56)
Official standardized case definitions	18	(35)
Adequate supply of reporting forms during preceding 6 months	18	(35)
Monthly report agreed with clinic register	15	(29)
Ability to confirm cases		
Malaria	27	(51)
Tuberculosis	23	(44)
Meningococcal meningitis	11	(21)
Cholera	0	(0)
Shigellosis	0	(0)
Data analysis and use		
Prepared line graphs or trend line of cases	5	(10)
Had a threshold for action for epidemic-prone diseases	14	(27)
Had conducted community prevention and control measures	26	(50)
Had a report of a communitywide public intervention	8	(15)
Feedback, supervision, and training		
Received feedback at least once during preceding 6 months	8	(15)
Received performance review at least once during preceding 6 months	11	(32)
Received training on use of surveillance forms	32	(62)
Resources available		
Stationery	39	(75)
Calculator	40	(77)
Telephone service	14	(27)
Radio-call	7	(14)

*N=52 health facilities (e.g., dispensaries, health centers, and hospitals) surveyed.

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none of the facilities had the capacity to confirm shigellosis or cholera.

Five (10%) health facilities analyzed data for trends, and 14 (27%) had thresholds for action in response to surveillance data for epidemic-prone diseases. Communitywide prevention and control measures had been conducted at 26 (50%) of the health facilities during the 12 months before the assessment, and reports of this intervention were available in eight (15%).

During the 6 months before the assessment, most surveillance activities conducted by health facilities had neither received a performance review (68%) nor received feedback (85%) from the district or national levels. Respondents at 32 (62%) health facilities had received training in the use of surveillance forms. Most health facilities had calculators (77%) and stationery (75%), and few had telephones (27%) or radio-call facilities (14%).

District Health Offices

Seven of the eight districts had the capacity to transport specimens to a higher-level laboratory for confirmation (Table 2). Four had an adequate supply of monthly reporting forms during the 6 months before the assessment. Six districts prepared trend lines of cases and described data by place, and three calculated disease rates. Seven districts had a functional epidemic preparedness committee, three had a written plan for epidemic preparedness, and two responded within 48 hours of notification of the most recent epidemic in their district. Health personnel in four of the districts had investigated an outbreak during the 12 months before the assessment. Seven districts had implemented community prevention and control measures during the 12 months before the assessment.

Three districts had received a surveillance bulletin during the 12 months before the assessment, and two had received a performance review during the preceding 6 months. All districts had personnel trained in surveillance (including for acute flaccid paralysis surveillance), and seven had personnel trained in data management. All districts had vehicles and telephone services; seven had computers and radio-call facilities.

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Editorial Note: The findings in this report indicate that health facilities in Uganda lack standard case definitions and capacity to confirm priority diseases. District health offices had adequate resources but lacked epidemic preparedness and rapid response capacity. Neither health facilities nor district health offices received regular performance reviews.

Public health surveillance includes the ongoing systematic collection, analysis, and interpretation of health data with the subsequent transformation of the data into information to direct public health action (*3,4*). At health facilities, infectious disease surveillance systems require standardized case definitions, adequate laboratory support for disease confirmation, routine methods for reporting and feedback, and ongoing data analysis to detect and facilitate response to diseases. Health facilities also require support from higher levels for performance reviews, training, and the provision of resources

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TABLE 2. Indicators of performance and support of infectious disease surveillance activities at district health offices* — Uganda, 2000

Indicator	No.	(%)
Case confirmation and reporting		
Had capacity to transport specimens to higher level laboratories	7	(88)
Had adequate supply of reporting forms during preceding 6 months	4	(50)
Data analysis		
Prepared trend lines	6	(75)
Described data by place	5	(63)
Calculated rates	3	(38)
Epidemic preparedness and response		
Functional epidemic committee	7	(88)
Written plan for epidemic preparedness	3	(38)
Responded within 48 hours of most recently reported epidemic	2	(25)
Investigated an outbreak during preceding 12 months	4	(50)
Looked for risk factors in most recent outbreak investigation	3	(38)
Implemented community prevention/control measures during preceding 12 months	7	(88)
Feedback, supervision, and training		
Received at least one feedback bulletin during preceding 12 months	3	(38)
Received performance review during preceding 6 months	2	(25)
Received training in surveillance	8	(100)
Received training in data management	7	(88)
Resources available		
Stationery	6	(75)
Computer	7	(88)
Telephone service	8	(100)
Radio-call	7	(88)
Vehicle	8	(100)

* N=8 district health offices surveyed.

for surveillance. WHO-AFRO and CDC are working with UMoH to build the capacity of the districts—the primary level of public health response—to collect and transport specimens for confirmation, analyze and use data for action, prepare for and respond to epidemics, and provide support to health facilities in Uganda.

The findings in this report are subject to at least two limitations. First, the findings are subject to interviewer bias because some of the interviewers knew about the strengths and weaknesses of the surveillance systems; however, this was offset by the presence of independent interviewers from CDC and WHO. Second, the sampling methods used to select the districts does not allow for a generalization of the results to the entire country.

To improve infectious disease surveillance in Uganda, standardized case definitions must be distributed to health facilities and health-care workers trained in their use. In addition, regular supervision should be instituted to ensure proper use of case definitions, registration, and reporting veracity; regular supervision improves the willingness of health-care workers to participate in public health activities (*5*). UMoH also is considering initiating a regular national surveillance bulletin to promote the use of surveillance data. To respond rapidly to infectious diseases and other acute health problems, district health teams need timely, high-quality information that can be provided only by staff members with necessary skills and motivation.

Infectious Disease Surveillance — Continued

References

1. World Health Organization, Regional Office for Africa. Integrated disease surveillance strategy: a regional strategy for communicable diseases 1999–2003. Harare, Zimbabwe: World Health Organization Regional Office for Africa, 1999.
2. World Health Organization, Regional Office for Africa. Assessment protocol for national communicable disease surveillance systems and epidemic preparedness and response. Harare, Zimbabwe: World Health Organization, February 2000.
3. Langmuir AD. The surveillance of communicable diseases of national importance. N Engl J Med 1963;268:182–92.
4. Klaucke DN, Bueheler JW, Thacker SB, et al. Guidelines for evaluating surveillance systems. MMWR 1988;37(no. S-5).
5. Henderson DA. Surveillance of smallpox. Int J Epidemiol 1976;5:19–28.

Intimate Partner Violence Among Men and Women — South Carolina, 1998

Few studies provide population-based estimates of intimate partner violence (IPV) for men and women, especially at the state level. IPV may result in adverse health effects for victims and perpetrators (*1–3*). To estimate the lifetime incidence of IPV by type of violence (e.g., physical, sexual, and perceived emotional abuse) and to explore demographic correlates of reporting IPV among men and women, the South Carolina Department of Health and Environmental Control and the University of South Carolina conducted a population-based random-digit–dialed telephone survey of adults in the state. This report summarizes the results of the survey, which indicated that approximately 25% of women and 13% of men have experienced some type of IPV during their lifetime. Although women were significantly more likely to report physical and sexual IPV, men were as likely as women to report emotional abuse without concurrent physical or sexual IPV.

In November 1998, the University of South Carolina Survey Research Laboratory conducted a survey of South Carolina noninstitutionalized residents aged 18–64 years. A modified Abuse Assessment Screen (AAS) (*4*) was used to assess IPV among women; similar questions were used to assess IPV among men (*5,6*). One eligible adult per household was selected randomly. Data from households with more than one adult or more than one residential telephone number were weighted to adjust for unequal probability of sampling. In addition, data were weighted based on respondent age, race, and sex to represent 1990 South Carolina census data. Of 801 eligible residents contacted, 556 (69.4%) agreed to participate; 56.3% were women.

Survey respondents were asked the following questions from AAS to address IPV by type: "In any intimate relationship that lasted at least three months, did you ever feel emotionally or psychologically abused?"; "Did a partner hit, slap, kick, or otherwise physically hurt you?"; and "Incidents involving forced or unwanted sexual acts are often difficult to talk about. In any intimate relationship lasting at least three months, did a partner force you to have sexual activities against your will?" Respondents who answered "yes" were asked the frequency of abuse, the duration of the relationship, their age when they were first in an abusive relationship, their marital status, and the sex of the abusive partner. Other questions were about forced or coerced sexual activities by someone other than an intimate partner, their age at forced sex, and how many times forced sex had occurred.

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PC-SAS was used to weight data by age, race, and state region. Because IPV types overlapped, hierarchic categories of violence exposure were created: physical and sexual IPV, physical without sexual IPV, and perceived emotional abuse without physical or sexual IPV. Most persons who reported physical or sexual IPV also reported perceived emotional abuse. Sex differences in IPV reporting by type and demographic differences in IPV reporting within sex were assessed using multiple logistic regression (*7*). Models were adjusted for the sample weights (age, race, and state region). Because logistic regression provides odds ratios, which are biased estimates of the relative risk (RR) if the outcomes are not rare (>10%), odds ratios were converted to RRs (*8*).

Among women, 25.3% (95% confidence interval [CI]=20.4%–29.9%) reported ever experiencing some form of IPV; among men, 13.2% (95% CI=8.6%–16.9%) reported ever experiencing IPV (Table 1). Although women were significantly more likely to experience physical and/or sexual IPV (RR=3.3; 95% CI=1.7–4.9), men were as likely as women to report perceived emotional abuse without physical IPV (8.3% for men [95% CI=3.9%–10.3%] and 7.4% for women [95% CI=4.8%–10.7%]). Women were five times more likely than men to experience forced or coerced sex outside an intimate relationship (Table 1). Women were significantly more likely than men to report forced or coerced sex within an intimate relationship (RR=4.7; 95% CI=1.7–12.5).

Demographic correlates of ever experiencing any type of IPV by sex were examined. Overall, persons with incomes <$15,000 were almost five times more likely to report IPV than were those with incomes >$50,000; IPV rates increased with decreasing income for men (p=0.002) and for women (p=0.0001). Age, education, and race were not associated with reporting IPV.

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Editorial Note: These lifetime estimates of physical or sexual IPV in South Carolina (17.8% in women and 4.9% in men) suggest that 112,600 men and 243,400 women aged 18–64 years have experienced IPV and that low-income persons are at greatest risk for reporting IPV; these findings are consistent with rates in other reports (*5,6,9*). Compared with other surveys, the South Carolina study included emotional abuse caused by IPV and found that men were as likely as women to report emotional abuse.

The findings in this report are subject to at least three limitations. First, although corrections for nonresponse were attempted, respondents may differ from nonrespondents, particularly because of the sensitive nature of the questions. Persons without home telephones (approximately 7% of persons residing in South Carolina) were not included in the survey; therefore, IPV rates in this population cannot be determined. Second, interpreting similar frequencies of perceived emotional abuse for men and women is difficult because of differences in the balance of power in male-female relationships. More research is needed to clarify this finding using specific questions focusing on behaviors of the partner. Third, the small sample size limits study power to provide precise estimates of IPV frequency by type, particularly for men.

This report indicates that behavioral surveys can provide data to direct and evaluate IPV and sexual assault prevention and control activities. South Carolina health officials plan to use large surveys such as the Behavioral Risk Factor Surveillance System to monitor, in alternating years, IPV and forced sex prevalence in the last 12 months among women and men. These data will be distributed to increase awareness of this public

TABLE 1. Number and percentage of persons aged 18–64 years who reported ever experiencing intimate partner violence (IPV) and forced sex, by sex — South Carolina, 1998

Category	Women (n=313) No.	%*	(95% CI†)	Men (n=243) No.	%*	(95% CI)	RR§	(95% CI)
IPV experience								
Ever experienced any IPV (physical, sexual, or perceived emotional abuse)	78	25.3%	(20.4%–29.9%)	30	13.2%	(8.6%–16.9%)	2.0	(1.4– 3.5)
Physical or sexual IPV¶	55	17.8%	(13.6%–22.3%)	14	4.9%	(3.3%– 9.7%)	3.3	(1.7– 4.9)
Physical and sexual IPV¶	23	7.2%	(4.8%–10.7%)	4	1.5%	(0.5%– 3.9%)	4.7	(1.7–12.5)
Physical, no sexual IPV¶	32	10.6%	(7.2%–14.0%)	10	3.4%	(2.1%– 7.2%)	2.6	(1.3– 4.9)
Perceived emotional abuse, no physical or sexual IPV	23	7.4%	(4.8%–10.7%)	16	8.3%	(3.9%–10.3%)	1.3	(0.7– 2.6)
No IPV	235	74.7%	(70.1%–79.6%)	213	86.8%	(83.1%– 91.4%)	Referent	
Forced or coerced sex by someone other than an intimate partner								
Ever experienced forced or coerced sexual activity	21	7.8%	(4.2%–10.2%)	3	2.0%	(0.3%– 3.6%)	5.5	(1.7–15.0)
Never experienced forced or coerced sexual activity	292	92.2%	(89.4%–95.5%)	240	98.0%	(96.1%–99.7%)	Referent	

* Weighted for age, race, and state region.
† Confidence interval.
§ Relative risk (RR) calculated to convert odds ratios to RRs if the outcome is not rare (*8*); RR adjusted for age, race, and state region.
¶ >90% also reported perceived emotional abuse.

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health problem, to stress the unacceptability of IPV, and to guide the development of community resources, including crisis hotlines, shelters, counseling victims and perpetrators, and services for children who witness this violence. Intervention activities against IPV in South Carolina include routine screening for IPV in health department clinics (*10*) and in cooperation with nonprofit agencies, school-based programs to teach conflict resolution and IPV awareness. Additional programs such as interventions to make the criminal justice system (e.g., police, legal advocates, prosecutors, and judges) more responsive to victims are needed to address IPV.

References

1. Campbell J, Lewandowski LA. Mental and physical health effects of intimate partner violence on women and children. The Psychiatric Clinics of North America 1997;20: 353–74.
2. Wagner PJ, Mongan PF. Validating the concept of abuse: women's perceptions of defining behaviors and the effects of emotional abuse on health indicators. Arch Fam Med 1998;7:25–9.
3. Coker AL, McKeown RE, Sanderson M, Davis KE, Valois RF, Huebner ES. Severe dating violence, forced sex and health-related quality of life among South Carolina high school students. Am J Preventive Med 2000 (in press).
4. McFarlane J, Parker B, Soeken S, Bullock L. Assessing for abuse during pregnancy: severity and frequency of injuries and associated entry into prenatal care. JAMA 1992;267:3176–8.
5. CDC. Prevalence of intimate partner violence and injuries—Washington, 1998. MMWR 2000;49:589–92.
6. Tjaden P, Thoennes N. Prevalence, incidence, and consequences of violence against women: findings from the National Violence Against Women Survey. Washington, DC: US Department of Justice, National Institute of Justice/CDC Research in Brief, November 1998.
7. Breslow NE, Day NE. Statistical methods in cancer research. Vol I: the analysis of case-control studies. Lyon, France: WHO International Agency for Research on Cancer, no. 32, 1980.
8. Zhang J, Yu KF. What's the relative risk? a method of correcting the odds ratio in cohort studies of common outcomes. JAMA 1998;280:1690–1.
9. CDC. Lifetime and annual incidence of intimate partner violence and resulting injuries, 1995. MMWR 1998;47:849–53.
10. American Medical Association. Diagnostic and treatment guidelines on domestic violence. Chicago, Illinois: American Medical Association, 1992.

Notice to Readers

Epidemiology in Action Course

CDC and Emory University's Rollins School of Public Health will co-sponsor a course, "Epidemiology in Action," during November 6–17, 2000, at CDC and Emory University. The course is designed for state and local public health professionals.

The course emphasizes the practical application of epidemiology to public health problems and will consist of lectures, workshops, classroom exercises (including actual epidemiologic problems), and roundtable discussions. Topics include descriptive epidemiology and biostatistics, analytic epidemiology, epidemic investigations, public health surveillance, surveys and sampling, Epi Info software training, and discussions of selected prevalent diseases. There is a tuition charge.

Deadline for applications is September 15. Additional information and applications are available from Emory University, International Health Dept. (PIA), 1518 Clifton Rd. NE, Room 746, Atlanta, GA 30322; telephone (404) 727-3485; fax (404) 727-4590; email pvaleri@sph.emory.edu; or the World-Wide Web, http://www.sph.emory.edu/EPICOURSES.*

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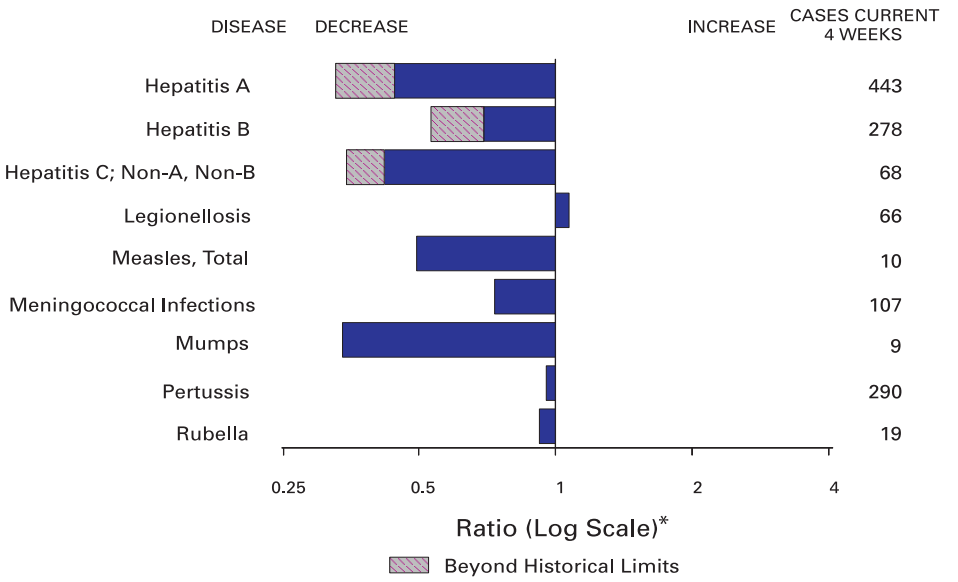
Erratum: Vol. 49, No. 29

In the Notice to Readers "Voluntary Recall of IMOVAX® Rabies I.D. (Rabies Vaccine) Used for Pre-Exposure Prophylaxis," on page 671, an incorrect lot number was given. The involved lot should have been listed as *P0313-3*; lots P0030-2 and N1204-2 are being recalled as a precautionary measure.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending July 29, 2000, with historical data



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

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending July 29, 2000 (30th Week)

	Cum. 2000		Cum. 2000
Anthrax	-	HIV infection, pediatric*§	126
Brucellosis*	31	Plague	5
Cholera	2	Poliomyelitis, paralytic	-
Congenital rubella syndrome	4	Psittacosis*	8
Cyclosporiasis*	20	Rabies, human	-
Diphtheria	-	Rocky Mountain spotted fever (RMSF)	168
Encephalitis: California serogroup viral*	10	Streptococcal disease, invasive, group A	1,796
eastern equine*	-	Streptococcal toxic-shock syndrome*	58
St. Louis*	-	Syphilis, congenital¶	82
western equine*	-	Tetanus	14
Ehrlichiosis human granulocytic (HGE)*	76	Toxic-shock syndrome	96
human monocytic (HME)*	27	Trichinosis	4
Hansen disease (leprosy)*	33	Typhoid fever	179
Hantavirus pulmonary syndrome*†	14	Yellow fever	-
Hemolytic uremic syndrome, postdiarrheal*	56		

-: No reported cases.
*Not notifiable in all states.
† Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP). Last update July 30, 2000.
¶ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending July 29, 2000, and July 31, 1999 (30th Week)

Reporting Area	AIDS		Chlamydia†		Cryptosporidiosis		*Escherichia coli* O157:H7*			
							NETSS		PHLIS	
	Cum. 2000§	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	22,760	26,225	349,718	376,306	754	1,080	1,659	1,208	1,007	1,228
NEW ENGLAND	1,333	1,282	12,307	12,142	41	61	182	193	153	192
Maine	20	44	720	629	9	12	14	15	7	-
N.H.	22	33	581	561	6	7	18	17	18	20
Vt.	11	6	306	274	14	11	18	18	17	10
Mass.	852	826	5,468	5,173	10	26	77	88	61	94
R.I.	54	70	1,378	1,343	2	-	9	16	10	16
Conn.	374	303	3,854	4,162	-	5	46	39	40	52
MID. ATLANTIC	5,371	6,723	27,917	38,732	78	217	160	101	84	88
Upstate N.Y.	545	846	N	N	50	69	132	69	38	-
N.Y. City	2,964	3,589	11,133	16,323	7	123	7	8	7	8
N.J.	1,038	1,261	4,461	7,042	3	16	21	24	31	76
Pa.	824	1,027	12,323	15,367	18	9	N	N	8	4
E.N. CENTRAL	2,261	1,715	55,836	62,898	170	223	325	223	137	222
Ohio	345	267	14,251	17,142	27	25	72	71	44	83
Ind.	216	221	6,671	6,848	13	14	54	28	31	25
Ill.	1,291	781	14,735	18,523	7	37	78	80	-	56
Mich.	297	356	13,063	12,094	40	28	55	44	34	31
Wis.	112	90	7,116	8,291	83	119	66	N	28	27
W.N. CENTRAL	574	603	19,099	21,575	82	67	250	216	183	276
Minn.	101	105	3,636	4,348	11	13	59	61	73	91
Iowa	59	56	2,555	2,451	28	16	64	45	10	36
Mo.	284	293	6,331	7,867	14	12	62	19	56	32
N. Dak.	2	4	352	507	5	11	8	3	13	7
S. Dak.	4	13	1,029	888	9	3	17	17	12	31
Nebr.	38	43	1,922	1,915	12	10	25	56	9	75
Kans.	86	89	3,274	3,599	3	2	15	15	10	4
S. ATLANTIC	6,119	7,202	72,933	80,264	140	187	129	142	95	102
Del.	111	95	1,629	1,564	4	-	-	4	-	-
Md.	693	793	7,265	7,506	9	10	12	10	1	-
D.C.	390	271	1,855	N	7	6	-	-	U	U
Va.	383	366	9,337	8,509	4	10	25	35	22	35
W. Va.	37	40	1,177	1,011	3	-	8	6	5	2
N.C.	371	483	12,717	13,364	15	5	24	27	24	31
S.C.	457	674	7,385	10,370	-	-	11	14	2	13
Ga.	703	1,088	13,629	20,033	64	93	15	13	16	1
Fla.	2,974	3,392	17,939	17,907	34	63	34	33	25	20
E.S. CENTRAL	1,098	1,136	26,651	26,065	32	14	67	73	36	56
Ky.	128	173	4,542	4,364	4	4	23	19	15	13
Tenn.	437	439	8,220	8,094	8	4	30	31	19	25
Ala.	302	285	8,139	6,620	10	4	5	15	-	15
Miss.	231	239	5,750	6,987	10	2	9	8	2	3
W.S. CENTRAL	2,393	2,842	54,425	52,008	33	42	89	54	101	65
Ark.	112	107	2,876	3,357	3	-	36	6	3	5
La.	367	542	10,875	8,910	8	19	4	7	27	8
Okla.	182	74	4,420	4,775	4	3	9	14	7	10
Tex.	1,732	2,119	36,254	34,966	18	20	40	27	64	42
MOUNTAIN	839	1,014	21,450	20,093	46	48	206	90	92	85
Mont.	9	5	826	817	8	8	20	5	-	-
Idaho	16	15	1,064	988	3	3	26	6	-	9
Wyo.	7	4	377	442	3	-	9	3	2	6
Colo.	199	196	6,643	4,548	13	4	84	32	49	25
N. Mex.	88	65	2,599	2,935	3	19	9	5	3	2
Ariz.	245	515	6,604	7,385	4	9	32	17	21	12
Utah	87	84	1,290	1,218	9	N	22	15	17	23
Nev.	188	130	2,047	1,760	3	5	4	7	-	8
PACIFIC	2,772	3,708	59,100	62,529	132	221	251	116	126	142
Wash.	301	213	7,339	6,716	N	N	96	33	69	55
Oreg.	106	118	3,053	3,603	9	79	44	27	49	29
Calif.	2,270	3,314	45,943	49,317	123	142	101	49	-	51
Alaska	12	13	1,354	1,056	-	-	2	-	1	-
Hawaii	83	50	1,411	1,837	-	-	8	7	7	7
Guam	13	11	-	268	-	-	N	N	U	U
P.R.	710	823	670	U	-	-	4	5	U	U
V.I.	24	18	-	U	-	U	-	U	U	U
Amer. Samoa	-	-	-	U	-	U	-	U	U	U
C.N.M.I.	-	-	-	U	-	U	-	U	U	U

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

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

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

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update July 30, 2000.

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending July 29, 2000, and July 31, 1999 (30th Week)

Reporting Area	Gonorrhea		Hepatitis C; Non-A, Non-B		Legionellosis		Lyme Disease	
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	183,105	200,436	1,678	1,555	437	508	4,407	6,845
NEW ENGLAND	3,460	3,652	27	13	24	35	1,180	2,207
Maine	41	32	1	2	2	3	-	1
N.H.	65	60	-	-	2	3	35	2
Vt.	34	34	3	5	3	8	6	5
Mass.	1,469	1,444	20	3	9	12	400	519
R.I.	336	342	3	3	3	3	145	214
Conn.	1,515	1,740	-	-	5	6	594	1,466
MID. ATLANTIC	17,488	22,624	308	76	89	117	2,411	3,353
Upstate N.Y.	3,894	3,589	41	38	36	31	1,290	1,618
N.Y. City	4,456	7,697	-	-	-	15	5	98
N.J.	3,331	4,255	248	-	7	11	447	854
Pa.	5,807	7,083	19	38	46	60	669	783
E.N. CENTRAL	34,062	38,711	138	562	114	155	151	430
Ohio	8,632	10,084	5	1	46	46	39	27
Ind.	3,052	3,667	1	1	26	22	14	9
Ill.	9,925	12,702	8	34	8	22	7	15
Mich.	9,517	8,555	124	510	22	39	-	9
Wis.	2,936	3,703	-	16	12	26	91	370
W.N. CENTRAL	8,156	9,331	370	114	31	27	91	103
Minn.	1,480	1,607	5	4	1	1	48	37
Iowa	549	595	1	-	6	8	6	14
Mo.	3,811	4,603	354	108	19	12	20	34
N. Dak.	15	48	-	-	-	-	-	1
S. Dak.	160	90	-	-	1	2	-	-
Nebr.	708	880	3	2	1	4	-	9
Kans.	1,433	1,508	7	-	3	-	17	8
S. ATLANTIC	54,424	58,557	76	100	88	67	482	597
Del.	930	967	-	-	5	7	69	44
Md.	4,898	5,534	11	15	30	11	283	435
D.C.	1,390	2,128	2	-	-	1	2	3
Va.	5,658	5,678	3	10	12	16	71	48
W. Va.	366	347	12	13	N	N	17	12
N.C.	10,273	11,523	13	26	8	12	22	42
S.C.	9,696	6,507	1	13	2	7	2	3
Ga.	8,716	13,075	2	1	5	-	-	-
Fla.	12,497	12,798	32	22	26	13	16	10
E.S. CENTRAL	19,466	20,412	269	178	16	31	17	45
Ky.	1,936	1,923	19	10	9	12	4	6
Tenn.	6,469	6,432	60	61	5	14	11	24
Ala.	6,549	5,782	7	1	2	3	2	12
Miss.	4,512	6,275	183	106	-	2	-	3
W.S. CENTRAL	28,344	29,180	277	284	11	4	10	23
Ark.	1,552	1,688	3	17	-	1	2	2
La.	7,687	6,973	172	190	8	1	1	3
Okla.	1,904	2,364	4	13	1	2	-	4
Tex.	17,201	18,155	98	64	2	-	7	14
MOUNTAIN	5,550	5,470	113	111	25	29	5	7
Mont.	26	22	2	4	1	-	-	-
Idaho	50	49	3	5	4	-	1	-
Wyo.	30	14	68	34	1	-	1	1
Colo.	1,793	1,363	14	18	8	8	1	1
N. Mex.	551	570	11	19	1	1	-	1
Ariz.	2,190	2,631	11	21	6	4	-	-
Utah	133	113	-	5	4	10	-	2
Nev.	777	708	4	5	-	6	2	2
PACIFIC	12,155	12,499	100	117	39	43	60	80
Wash.	1,285	1,176	17	10	14	9	3	3
Oreg.	407	508	21	12	N	N	4	7
Calif.	10,092	10,386	60	95	25	33	53	70
Alaska	176	174	-	-	-	1	-	-
Hawaii	195	255	2	-	-	-	N	N
Guam	-	34	-	1	-	-	-	-
P.R.	326	189	1	-	-	-	N	N
V.I.	-	U	-	U	-	U	-	U
Amer. Samoa	-	U	-	U	-	U	-	U
C.N.M.I.	-	U	-	U	-	U	-	U

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

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending July 29, 2000, and July 31, 1999 (30th Week)

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
					NETSS		PHLIS	
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	576	748	3,096	3,449	16,662	18,846	12,216	17,634
NEW ENGLAND	28	29	412	471	1,117	1,170	1,060	1,215
Maine	4	2	83	83	83	75	41	61
N.H.	1	2	8	29	79	76	76	81
Vt.	2	2	38	63	66	47	66	43
Mass.	7	12	138	104	635	650	572	658
R.I.	5	3	26	59	45	56	84	87
Conn.	9	8	119	133	209	266	221	285
MID. ATLANTIC	105	205	590	671	2,060	2,574	1,990	2,539
Upstate N.Y.	35	40	416	476	615	640	616	660
N.Y. City	37	101	U	U	503	773	602	781
N.J.	15	40	91	112	421	558	393	569
Pa.	18	24	83	83	521	603	379	529
E.N. CENTRAL	58	95	50	66	2,365	2,815	1,381	2,514
Ohio	12	14	13	20	616	614	453	538
Ind.	4	10	-	-	290	242	264	253
Ill.	19	43	9	3	650	926	1	878
Mich.	17	22	23	31	499	547	470	555
Wis.	6	6	5	12	310	486	193	290
W.N. CENTRAL	30	32	331	444	1,163	1,190	1,299	1,353
Minn.	13	6	53	62	229	290	348	426
Iowa	1	11	48	71	207	132	174	122
Mo.	5	11	14	14	374	412	469	468
N. Dak.	2	-	89	88	27	20	49	36
S. Dak.	-	-	59	129	52	55	59	80
Nebr.	3	-	-	3	80	106	44	99
Kans.	6	4	68	77	194	175	156	122
S. ATLANTIC	164	192	1,283	1,210	3,581	3,764	2,354	3,240
Del.	3	1	20	30	59	63	62	80
Md.	57	60	240	238	451	415	391	447
D.C.	12	11	-	-	33	53	U	U
Va.	32	44	321	304	493	661	424	607
W. Va.	2	1	72	69	83	87	79	83
N.C.	12	12	322	248	466	536	401	662
S.C.	1	4	78	97	321	240	249	220
Ga.	4	18	157	124	633	574	698	824
Fla.	41	41	73	100	1,042	1,135	50	317
E.S. CENTRAL	21	15	106	168	1,002	1,041	527	745
Ky.	5	5	15	24	197	214	129	157
Tenn.	5	5	57	61	246	260	271	299
Ala.	10	4	34	83	285	299	111	243
Miss.	1	1	-	-	274	268	16	46
W.S. CENTRAL	8	11	36	81	1,285	1,584	1,871	1,413
Ark.	2	2	-	14	305	227	250	76
La.	2	7	-	-	108	257	273	321
Okla.	4	2	36	67	179	210	140	166
Tex.	-	-	-	-	693	890	1,208	850
MOUNTAIN	30	22	132	116	1,499	1,662	1,053	1,472
Mont.	1	4	39	41	61	36	-	1
Idaho	2	1	1	-	80	50	-	53
Wyo.	-	1	28	31	33	25	14	27
Colo.	15	9	-	1	442	458	410	445
N. Mex.	-	2	13	4	124	247	121	192
Ariz.	5	2	46	35	392	472	327	423
Utah	3	2	4	3	218	268	181	282
Nev.	4	1	1	1	149	106	-	49
PACIFIC	132	147	156	222	2,590	3,046	681	3,143
Wash.	13	11	-	-	255	353	312	512
Oreg.	24	14	4	1	180	283	233	310
Calif.	92	112	132	214	2,008	2,148	-	2,117
Alaska	-	-	20	7	34	27	21	16
Hawaii	3	10	-	-	113	235	115	188
Guam	-	-	-	-	-	24	U	U
P.R.	-	-	40	51	147	299	U	U
V.I.	-	U	-	U	-	U	U	U
Amer. Samoa	-	U	-	U	-	U	U	U
C.N.M.I.	-	U	-	U	-	U	U	U

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

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

TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending July 29, 2000, and July 31, 1999 (30th Week)

Reporting Area	Shigellosis* NETSS Cum. 2000	Shigellosis* NETSS Cum. 1999	Shigellosis* PHLIS Cum. 2000	Shigellosis* PHLIS Cum. 1999	Syphilis (Primary & Secondary) Cum. 2000	Syphilis (Primary & Secondary) Cum. 1999	Tuberculosis Cum. 2000	Tuberculosis Cum. 1999†
UNITED STATES	9,709	7,954	5,143	4,626	3,328	3,801	6,026	8,666
NEW ENGLAND	205	260	177	216	46	33	216	239
Maine	6	4	-	-	1	-	2	12
N.H.	4	7	7	6	1	1	7	6
Vt.	2	4	-	3	-	3	2	1
Mass.	146	196	113	158	33	20	132	132
R.I.	12	14	20	9	4	1	24	25
Conn.	35	35	37	40	7	8	49	63
MID. ATLANTIC	1,187	547	738	350	150	172	1,299	1,358
Upstate N.Y.	476	139	149	36	7	12	143	158
N.Y. City	483	185	378	132	64	74	720	748
N.J.	125	137	135	113	29	39	308	306
Pa.	103	86	76	69	50	47	128	146
E.N. CENTRAL	2,123	1,429	617	761	642	682	681	894
Ohio	169	279	96	71	43	55	142	140
Ind.	892	102	90	37	230	235	46	71
Ill.	473	575	2	444	175	255	348	440
Mich.	451	209	390	160	164	113	93	183
Wis.	138	264	39	49	30	24	52	60
W.N. CENTRAL	1,060	666	885	483	37	84	255	279
Minn.	234	116	328	167	3	7	85	111
Iowa	303	13	200	15	10	8	23	29
Mo.	374	453	288	237	19	55	100	96
N. Dak.	4	2	4	2	-	-	2	2
S. Dak.	4	9	1	5	-	-	11	9
Nebr.	34	44	9	33	2	4	11	12
Kans.	107	29	55	24	3	10	23	20
S. ATLANTIC	1,444	1,299	428	330	1,123	1,245	1,327	1,764
Del.	9	8	9	4	5	6	-	20
Md.	89	77	35	25	158	241	150	154
D.C.	30	34	U	U	30	32	13	32
Va.	240	58	187	36	78	96	136	149
W. Va.	3	6	3	3	2	2	19	26
N.C.	72	125	34	60	324	287	172	233
S.C.	66	75	54	37	114	167	54	194
Ga.	134	122	44	50	209	229	274	361
Fla.	801	794	62	115	203	185	509	595
E.S. CENTRAL	508	790	295	487	505	667	428	553
Ky.	148	157	48	110	53	58	58	101
Tenn.	228	494	233	333	307	369	196	179
Ala.	23	71	11	40	69	137	174	169
Miss.	109	68	3	4	76	103	-	104
W.S. CENTRAL	1,076	1,392	1,388	577	471	580	252	1,218
Ark.	123	53	24	20	56	39	109	91
La.	80	100	96	59	116	162	73	U
Okla.	68	360	20	115	77	122	70	98
Tex.	805	879	1,248	383	222	257	-	1,029
MOUNTAIN	552	420	242	281	125	142	267	271
Mont.	5	6	-	-	-	-	6	5
Idaho	38	9	-	6	1	1	5	12
Wyo.	1	2	2	1	1	-	1	1
Colo.	88	69	45	57	3	1	35	U
N. Mex.	61	52	22	39	17	6	29	36
Ariz.	238	222	134	142	99	128	127	132
Utah	38	30	39	30	-	2	22	26
Nev.	83	30	-	6	4	4	42	59
PACIFIC	1,554	1,151	373	1,141	229	196	1,301	2,090
Wash.	327	57	289	56	36	39	161	142
Oreg.	104	41	61	36	4	3	8	63
Calif.	1,089	1,029	-	1,026	188	152	993	1,752
Alaska	8	-	3	-	-	1	60	35
Hawaii	26	24	20	23	1	1	79	98
Guam	-	9	U	U	-	-	-	39
P.R.	3	61	U	U	75	101	-	126
V.I.	-	U	U	U	-	U	-	U
Amer. Samoa	-	U	U	U	-	U	-	U
C.N.M.I.	-	U	U	U	-	U	-	U

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

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

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

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending July 29, 2000, and July 31, 1999 (30th Week)

Reporting Area	*H. influenzae*, Invasive		Hepatitis (Viral), By Type				Measles (Rubeola)					
			A		B		Indigenous		Imported*		Total	
	Cum. 2000†	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	2000	Cum. 2000	2000	Cum. 2000	Cum. 2000	Cum. 1999
UNITED STATES	704	734	6,298	9,397	3,821	3,961	2	35	1	12	47	63
NEW ENGLAND	50	54	173	142	36	89	2	2	1	4	6	10
Maine	1	5	10	5	5	1	-	-	-	-	-	-
N.H.	10	10	17	8	11	9	2	2	1	1	3	1
Vt.	3	4	6	3	5	1	-	-	-	3	3	-
Mass.	23	22	69	55	6	30	-	-	-	-	-	7
R.I.	1	1	8	11	9	22	-	-	-	-	-	-
Conn.	12	12	63	60	-	26	-	-	-	-	-	2
MID. ATLANTIC	116	131	598	690	528	523	-	8	-	1	9	5
Upstate N.Y.	57	53	125	152	77	116	-	8	-	-	8	2
N.Y. City	26	41	197	193	240	158	-	-	-	-	-	3
N.J.	25	34	80	84	68	75	-	-	-	-	-	-
Pa.	8	3	196	261	143	174	-	-	-	1	1	-
E.N. CENTRAL	94	121	758	1,782	404	418	-	7	-	-	7	2
Ohio	38	40	161	413	71	54	-	2	-	-	2	-
Ind.	15	19	38	64	30	27	-	-	-	-	-	1
Ill.	35	52	269	387	63	39	-	4	-	-	4	-
Mich.	6	9	277	870	239	273	-	1	-	-	1	1
Wis.	-	1	13	48	1	25	-	-	-	-	-	-
W.N. CENTRAL	35	34	578	439	526	162	-	1	-	1	2	-
Minn.	20	19	137	45	21	30	-	-	-	1	1	-
Iowa	-	1	56	83	26	25	-	1	-	-	1	-
Mo.	8	4	298	261	441	90	-	-	-	-	-	-
N. Dak.	1	-	2	1	2	-	-	-	-	-	-	-
S. Dak.	-	2	-	8	-	1	-	-	-	-	-	-
Nebr.	4	4	19	31	20	12	-	-	-	-	-	-
Kans.	2	4	66	10	16	4	-	-	-	-	-	-
S. ATLANTIC	192	164	780	1,074	709	623	-	3	-	-	3	4
Del.	-	-	-	2	-	1	-	-	-	-	-	-
Md.	51	45	106	193	73	92	-	-	-	-	-	-
D.C.	-	4	15	37	19	14	-	-	-	-	-	-
Va.	29	12	88	97	93	58	-	2	-	-	2	3
W. Va.	5	6	47	24	6	16	-	-	-	-	-	-
N.C.	17	24	97	81	142	137	-	-	-	-	-	-
S.C.	11	3	31	24	5	38	-	-	-	-	-	-
Ga.	51	45	126	295	119	74	-	-	-	-	-	-
Fla.	28	25	270	321	252	193	-	1	-	-	1	1
E.S. CENTRAL	34	46	258	253	275	279	-	-	-	-	-	2
Ky.	12	6	30	51	53	22	-	-	-	-	-	2
Tenn.	15	24	94	103	123	138	-	-	-	-	-	-
Ala.	6	14	40	38	31	54	-	-	-	-	-	-
Miss.	1	2	94	61	68	65	-	-	-	-	-	-
W.S. CENTRAL	38	44	1,038	1,807	380	654	-	1	-	-	1	6
Ark.	1	2	95	28	63	47	-	1	-	-	1	-
La.	7	10	28	98	50	110	-	-	-	-	-	-
Okla.	28	29	165	333	83	87	-	-	-	-	-	-
Tex.	2	3	750	1,348	184	410	-	-	-	-	-	6
MOUNTAIN	72	64	530	795	290	368	-	11	-	1	12	1
Mont.	-	1	3	14	3	16	U	-	U	-	-	-
Idaho	3	1	18	29	5	20	-	-	-	-	-	-
Wyo.	1	1	10	4	2	9	U	-	U	-	-	-
Colo.	11	11	122	150	54	56	-	1	-	1	2	-
N. Mex.	15	17	45	31	75	120	-	-	-	-	-	-
Ariz.	34	28	260	453	112	90	-	-	-	-	-	1
Utah	7	3	37	31	14	22	-	3	-	-	3	-
Nev.	1	2	35	83	25	35	-	7	-	-	7	-
PACIFIC	73	76	1,585	2,415	673	845	-	2	-	5	7	33
Wash.	3	2	165	191	49	39	-	-	-	-	-	5
Oreg.	19	26	126	153	58	66	-	-	-	-	-	11
Calif.	26	39	1,283	2,053	554	717	-	1	-	3	4	16
Alaska	5	5	8	5	6	13	-	1	-	-	1	-
Hawaii	20	4	3	13	6	10	-	-	-	2	2	1
Guam	-	-	-	1	-	2	U	-	U	-	-	1
P.R.	1	2	62	190	67	141	-	-	-	-	-	-
V.I.	-	U	-	U	-	U	U	-	U	-	-	U
Amer. Samoa	-	U	-	U	-	U	U	-	U	-	-	U
C.N.M.I.	-	U	-	U	-	U	U	-	U	-	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
*For imported measles, cases include only those resulting from importation from other countries.
†Of 141 cases among children aged <5 years, serotype was reported for 62 and of those, 16 were type b.

TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending July 29, 2000, and July 31, 1999 (30th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999
UNITED STATES	1,336	1,558	-	208	233	78	2,920	3,348	-	78	179
NEW ENGLAND	83	74	-	2	6	11	736	387	-	6	7
Maine	7	5	-	-	-	-	14	-	-	-	-
N.H.	9	11	-	-	1	9	71	56	-	2	-
Vt.	2	4	-	-	1	-	156	30	-	-	-
Mass.	50	41	-	-	4	1	451	272	-	3	7
R.I.	6	3	-	1	-	-	11	17	-	-	-
Conn.	9	10	-	1	-	1	33	12	-	1	-
MID. ATLANTIC	132	150	-	9	32	13	214	629	-	2	25
Upstate N.Y.	45	40	-	6	6	2	126	519	-	2	17
N.Y. City	29	42	-	-	8	-	-	25	-	-	2
N.J.	25	36	-	-	1	-	-	15	-	-	3
Pa.	33	32	-	3	17	11	88	70	-	-	3
E.N. CENTRAL	230	272	-	24	30	15	351	298	-	1	2
Ohio	57	102	-	7	8	10	194	129	-	-	-
Ind.	35	31	-	-	3	2	38	29	-	-	1
Ill.	53	70	-	5	9	2	29	61	-	1	1
Mich.	65	43	-	12	8	1	41	26	-	-	-
Wis.	20	26	-	-	2	-	49	53	-	-	-
W.N. CENTRAL	114	152	-	13	9	13	176	133	-	-	96
Minn.	14	33	-	-	1	13	89	39	-	-	-
Iowa	21	28	-	5	4	-	29	25	-	-	27
Mo.	62	55	-	4	1	-	30	39	-	-	2
N. Dak.	2	3	-	-	-	-	1	-	-	-	-
S. Dak.	5	9	-	-	-	-	3	5	-	-	-
Nebr.	5	8	-	2	-	-	4	2	-	-	67
Kans.	5	16	-	2	3	-	20	23	-	-	-
S. ATLANTIC	224	257	-	32	35	5	243	190	-	51	22
Del.	-	5	-	-	-	-	5	-	-	-	-
Md.	21	39	-	7	3	2	64	62	-	-	1
D.C.	-	3	-	-	2	-	2	-	-	-	-
Va.	36	32	-	5	8	-	33	13	-	-	-
W. Va.	10	4	-	-	-	-	1	1	-	-	-
N.C.	30	30	-	5	8	-	51	56	-	42	21
S.C.	16	31	-	10	3	-	20	8	-	7	-
Ga.	37	46	-	2	1	1	21	20	-	-	-
Fla.	74	67	-	3	10	2	46	30	-	2	-
E.S. CENTRAL	98	112	-	6	10	3	58	61	-	4	2
Ky.	21	20	-	-	-	2	25	17	-	1	-
Tenn.	39	43	-	2	-	1	19	27	-	-	-
Ala.	28	30	-	2	7	-	13	14	-	3	2
Miss.	10	19	-	2	3	-	1	3	-	-	-
W.S. CENTRAL	89	167	-	21	31	1	129	103	-	4	6
Ark.	11	28	-	2	-	-	10	11	-	-	-
La.	27	46	-	3	7	-	3	4	-	-	-
Okla.	21	26	-	-	1	-	6	13	-	-	-
Tex.	30	67	-	16	23	1	110	75	-	4	6
MOUNTAIN	83	96	-	15	10	12	449	406	-	2	15
Mont.	4	2	U	1	-	U	12	2	U	-	-
Idaho	6	8	-	-	1	1	43	106	-	-	-
Wyo.	-	3	U	1	-	U	2	2	U	-	-
Colo.	24	24	-	1	3	9	247	146	-	1	-
N. Mex.	7	13	-	1	N	1	81	47	-	-	-
Ariz.	32	29	-	3	-	1	47	60	-	1	13
Utah	7	11	-	4	3	-	11	40	-	-	1
Nev.	3	6	-	4	3	-	6	3	-	-	1
PACIFIC	283	278	-	86	70	5	564	1,141	-	8	4
Wash.	34	46	-	4	2	1	192	521	-	-	-
Oreg.	42	52	N	N	N	3	66	23	-	-	-
Calif.	194	168	-	68	60	-	270	570	-	8	4
Alaska	5	6	-	7	1	1	14	3	-	-	-
Hawaii	8	6	-	7	7	-	22	24	-	-	-
Guam	-	1	U	-	1	U	-	1	U	-	-
P.R.	5	9	-	-	-	-	1	15	-	-	-
V.I.	-	U	U	-	U	U	-	U	U	-	U
Amer. Samoa	-	U	U	-	U	U	-	U	U	-	U
C.N.M.I.	-	U	U	-	U	U	-	U	U	-	U

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

TABLE IV. Deaths in 122 U.S. cities,* week ending July 29, 2000 (30th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	570	410	107	37	12	4	37
Boston, Mass.	144	90	34	12	7	1	8
Bridgeport, Conn.	27	21	5	1	-	-	1
Cambridge, Mass.	16	14	1	-	-	1	1
Fall River, Mass.	24	20	4	-	-	-	3
Hartford, Conn.	60	41	9	7	3	-	4
Lowell, Mass.	34	28	4	2	-	-	2
Lynn, Mass.	14	9	4	1	-	-	-
New Bedford, Mass.	25	23	1	-	1	-	1
New Haven, Conn.	39	26	10	2	1	-	3
Providence, R.I.	56	43	8	4	-	1	-
Somerville, Mass.	4	3	1	-	-	-	1
Springfield, Mass.	45	33	10	2	-	-	7
Waterbury, Conn.	19	15	3	1	-	-	1
Worcester, Mass.	63	44	13	5	-	1	5
MID. ATLANTIC	1,960	1,357	400	136	41	25	100
Albany, N.Y.	49	33	8	7	1	-	3
Allentown, Pa.	U	U	U	U	U	U	U
Buffalo, N.Y.	91	68	17	2	3	1	5
Camden, N.J.	38	20	12	5	-	1	1
Elizabeth, N.J.	24	14	6	3	-	1	-
Erie, Pa.§	40	25	10	2	-	3	1
Jersey City, N.J.	45	29	11	4	-	1	-
New York City, N.Y.	1,019	698	216	67	24	13	41
Newark, N.J.	58	25	17	13	2	1	4
Paterson, N.J.	25	18	4	1	1	1	4
Philadelphia, Pa.	185	130	33	17	3	2	6
Pittsburgh, Pa.§	35	26	7	1	1	-	3
Reading, Pa.	42	32	7	1	1	1	4
Rochester, N.Y.	125	93	25	5	2	-	12
Schenectady, N.Y.	18	16	1	1	-	-	2
Scranton, Pa.§	32	28	2	2	-	-	2
Syracuse, N.Y.	54	46	7	1	-	-	9
Trenton, N.J.	42	24	14	2	2	-	2
Utica, N.Y.	18	15	1	2	-	-	-
Yonkers, N.Y.	20	17	2	-	1	-	1
E.N. CENTRAL	1,915	1,305	380	126	58	44	134
Akron, Ohio	57	41	10	3	2	1	4
Canton, Ohio	29	21	6	1	1	-	5
Chicago, Ill.	287	182	71	17	7	8	29
Cincinnati, Ohio	104	73	20	2	6	3	6
Cleveland, Ohio	140	90	25	18	4	3	-
Columbus, Ohio	173	123	35	8	3	4	14
Dayton, Ohio	117	85	20	5	5	2	5
Detroit, Mich.	179	112	41	15	9	2	18
Evansville, Ind.	45	31	10	3	1	-	2
Fort Wayne, Ind.	66	49	12	2	2	1	4
Gary, Ind.	26	15	6	2	1	2	1
Grand Rapids, Mich.	80	59	13	4	1	3	8
Indianapolis, Ind.	178	103	44	20	5	6	10
Lansing, Mich.	42	33	7	2	-	-	2
Milwaukee, Wis.	105	73	18	9	2	3	9
Peoria, Ill.	30	25	3	2	-	-	2
Rockford, Ill.	44	30	6	3	3	2	5
South Bend, Ind.	48	31	7	6	3	1	-
Toledo, Ohio	88	58	22	4	3	1	7
Youngstown, Ohio	77	71	4	-	-	2	3
W.N. CENTRAL	685	473	131	42	16	21	41
Des Moines, Iowa	45	34	7	4	-	-	8
Duluth, Minn.	19	14	1	1	1	-	1
Kansas City, Kans.	33	20	6	5	-	2	2
Kansas City, Mo.	88	57	21	4	4	2	3
Lincoln, Nebr.	25	19	4	2	-	-	-
Minneapolis, Minn.	144	107	25	5	4	3	7
Omaha, Nebr.	77	53	15	4	2	3	10
St. Louis, Mo.	80	44	20	7	2	7	1
St. Paul, Minn.	84	63	13	4	2	2	3
Wichita, Kans.	90	62	19	6	1	2	6
S. ATLANTIC	890	559	204	82	27	18	48
Atlanta, Ga.	U	U	U	U	U	U	U
Baltimore, Md.	153	84	45	13	8	3	8
Charlotte, N.C.	90	64	16	3	2	5	6
Jacksonville, Fla.	140	90	34	11	3	2	10
Miami, Fla.	U	U	U	U	U	U	U
Norfolk, Va.	44	17	9	12	5	1	-
Richmond, Va.	51	29	12	7	3	-	4
Savannah, Ga.	64	44	9	9	1	1	3
St. Petersburg, Fla.	46	31	7	4	1	3	3
Tampa, Fla.	179	128	37	12	1	1	13
Washington, D.C.	100	60	26	10	3	1	1
Wilmington, Del.	23	12	9	1	-	1	-
E.S. CENTRAL	853	576	169	64	25	18	56
Birmingham, Ala.	186	122	38	13	7	5	8
Chattanooga, Tenn.	82	60	15	4	1	2	8
Knoxville, Tenn.	95	63	25	4	1	2	4
Lexington, Ky.	44	30	9	4	1	-	4
Memphis, Tenn.	183	120	33	18	9	3	11
Mobile, Ala.	78	56	16	6	-	-	3
Montgomery, Ala.	45	29	11	4	-	1	6
Nashville, Tenn.	140	96	22	11	6	5	12
W.S. CENTRAL	1,404	860	305	127	74	38	93
Austin, Tex.	85	56	16	6	6	1	3
Baton Rouge, La.	41	32	5	3	1	-	2
Corpus Christi, Tex.	45	33	9	2	-	1	7
Dallas, Tex.	213	117	59	20	10	7	15
El Paso, Tex.	80	46	19	12	1	2	1
Ft. Worth, Tex.	124	80	24	10	5	5	11
Houston, Tex.	403	233	97	46	12	15	26
Little Rock, Ark.	74	46	13	3	9	3	6
New Orleans, La.	66	22	7	16	21	-	7
San Antonio, Tex.	225	165	43	7	9	1	11
Shreveport, La.	48	30	13	2	-	3	4
Tulsa, Okla.	U	U	U	U	U	U	U
MOUNTAIN	952	613	202	77	31	24	65
Albuquerque, N.M.	121	83	23	7	4	4	13
Boise, Idaho	30	22	5	2	-	1	2
Colo. Springs, Colo.	60	40	12	6	1	1	3
Denver, Colo.	100	64	21	9	1	5	5
Las Vegas, Nev.	193	126	45	14	7	1	14
Ogden, Utah	37	26	7	2	1	1	-
Phoenix, Ariz.	161	85	42	18	9	7	6
Pueblo, Colo.	31	20	5	1	-	-	5
Salt Lake City, Utah	88	58	14	10	4	2	11
Tucson, Ariz.	131	89	28	8	4	2	6
PACIFIC	1,299	887	249	95	28	35	103
Berkeley, Calif.	13	8	3	2	-	-	2
Fresno, Calif.	99	68	18	11	1	1	5
Glendale, Calif.	17	13	1	2	-	1	3
Honolulu, Hawaii	79	61	11	1	1	5	4
Long Beach, Calif.	75	55	15	2	1	2	11
Los Angeles, Calif.	371	251	69	36	8	7	24
Pasadena, Calif.	25	18	5	1	1	-	3
Portland, Oreg.	33	26	6	-	-	1	2
Sacramento, Calif.	165	110	36	10	5	3	17
San Diego, Calif.	156	104	34	11	3	4	17
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	U	U	U	U	U	U	U
Santa Cruz, Calif.	26	18	7	1	-	-	3
Seattle, Wash.	103	61	23	7	4	8	5
Spokane, Wash.	45	31	6	5	1	2	4
Tacoma, Wash.	92	63	15	6	3	1	3
TOTAL	10,528¶	7,040	2,147	786	312	227	677

U: Unavailable. -:No reported cases.

*Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

†Pneumonia and influenza.

§Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶Total includes unknown ages.

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