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High Prevalence of Chlamydial and Gonococcal Infection in Women Entering Jails and Juvenile Detention Centers — Chicago, Birmingham, and San Francisco, 1998

The prevalence of sexually transmitted diseases (STDs) is high among women entering corrections facilities (*1*). Screening for STDs in these facilities, however, is difficult because of the large number of persons admitted each day and the frequent shortage of medical staff and examination space (*1*). New, sensitive urine tests for gonorrhea and chlamydia have made screening practical outside of medical settings. To assess the feasibility of screening women in corrections facilities for chlamydial and gonococcal infection using urine tests and to determine the prevalences* of these infections, the Chicago Department of Public Health and the University of Alabama at Birmingham (UAB) began testing women and adolescent females entering the Cook County Jail and the Cook County Juvenile Temporary Detention Center in Chicago and the Jefferson County Jail and the Jefferson County Youth Detention Center in Birmingham, respectively, in 1998. The San Francisco Department of Public Health has been testing women at the San Francisco County jails for chlamydial and gonococcal infections using urine tests since 1996 and adolescent females at the San Francisco Youth Guidance Center since 1997. This report summarizes the findings for testing incarcerated women in 1998 in the three cities; preliminary results indicate that, in these facilities, testing for chlamydial and gonococcal infections is feasible and that a high percentage of women test positive for these infections.

In Chicago and Birmingham, STD screening was offered as a component of a research study, and written informed consent was obtained from all participants. Age groups eligible for testing varied by facility (all ages at the Jefferson County Jail, aged 18–30 years at the Cook County Jail, and aged ≥12 years at the juvenile facilities). Urine was tested for chlamydial and gonococcal DNA using the ligase chain reaction (LCR) assay at the Illinois Department of Public Health and UAB laboratories. In San Francisco, STD screening was offered routinely to women aged 18–29 years entering the adult facility and all adolescent females at the youth facility, and LCR testing was performed at the San Francisco Department of Public Health Laboratory. In the three

*In this report, the terms "prevalence" and "positivity" are used interchangeably although some women may be tested more than once; because of the short length of the study period, the difference between positivity and true prevalence is small.

STD Screening — Continued

cities, women with positive tests were treated by the facility's medical staff if they were still incarcerated when results became available; local health department staff attempted to locate infected women who were released untreated.

During July–December 1998 at the Cook County Jail, 845 (98%) of 862 women agreed to participate; of these, 772 (91%) provided a specimen. Of 772 specimens, 103 (13%) were positive for chlamydial infection, and 66 (9%) were positive for gonococcal infection, including seven (1%) that were positive for both. During August–December 1998, of 310 women asked to participate at the Jefferson County Jail, 308 (99%) consented. Of the 308 women, 34 (11%) were positive for chlamydial infection and 25 (8%) for gonococcal infection, including five (2%) positive for both. Of 124 women aged 18–29 years, 21 (17%) were positive for chlamydial infection and eight (6%) positive for gonococcal infection. During January–December 1998 at the San Francisco County Jail, 113 (10%) of 1149 women tested for chlamydial infection were positive, and 55 (5%) of 1142 women tested for gonococcal infection were positive, including 10 (1%) positive for both. Prevalence of chlamydial infection was higher among women aged 18–19 years and aged 20–24 years than among women aged ≥25 years at all three county jails (Table 1).

At each juvenile facility, overall positivity for both chlamydial and gonococcal infection in 1998 was higher than at the adult facility in the same city (Table 1). In Chicago during April–December, 27% of adolescent females were positive for chlamydial infection, and 11% were positive for gonococcal infection. In Birmingham during March–December, 22% and 17% were positive for chlamydial and gonococcal infections, respectively, and in San Francisco during January–December, 16% and 6% were positive, respectively.

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Editorial Note: Genital chlamydial and gonococcal infections can lead to pelvic inflammatory disease, ectopic pregnancy, infertility, or chronic pelvic pain in women (*2,3*). These infections are associated with increased risk for human immunodeficiency virus infection (*4,5*). Screening and treating women for chlamydia and gonorrhea may prevent some of these complications (*6*). Treating infected women in jail also may prevent transmission to the community because approximately half of arrestees are released within 48 hours of incarceration (*7*). The findings in this report indicate that a high percentage of women entering corrections facilities test positive for chlamydial and gonococcal infections.

Although the prevalence of chlamydial and gonococcal infection is high among incarcerated women, most corrections facilities do not routinely screen for these infections but test only those who have symptoms or who request testing (*7*). Most women with gonorrhea or chlamydia, however, are asymptomatic. At city and county jails surveyed during 1997 that tested arrestees because of symptoms or by request, <5% of women were tested for chlamydia and gonorrhea (*7*).

STD Screening — Continued

TABLE 1. Percentage of positive tests for chlamydial and gonococcal infection in women entering jails, by age group and facility — Cook County, Illinois; Jefferson County, Alabama; and San Francisco, California, 1998

Facility	Testing period	Age group (yrs)	Chlamydia			Gonorrhea		
			No. tests*	Positive		No. tests*	Positive	
				No.	(%)		No.	(%)
Cook County								
Juvenile detention center	Apr–Dec	12–17	452	124	(27%)	449	50	(11%)
Jail	Jul–Dec	18–19	112	24	(22%)	112	15	(14%)
		20–24	264	34	(13%)	264	23	(9%)
		25–30	396	45	(11%)	396	28	(7%)
Jefferson County								
Youth detention center	Mar–Dec	12–17	98	22	(22%)	98	17	(17%)
Jail	Aug–Dec	18–19	15	5	(33%)	15	0	(0%)
		20–24	46	7	(15%)	46	3	(7%)
		25–29	63	9	(14%)	63	5	(8%)
		≥30	184	13	(7%)	184	17	(9%)
San Francisco County								
Youth guidance center	Jan–Dec	9–17	585	92	(16%)	579	36	(6%)
Jail	Jan–Dec	18–19	232	40	(17%)	232	7	(3%)
		20–24	509	47	(9%)	505	24	(5%)
		25–29	408	26	(6%)	405	24	(6%)

*Unsatisfactory tests were excluded.

The cost of testing for chlamydia and gonorrhea remains a barrier to routine screening. If resources are scarce, corrections facilities may choose to screen only persons at highest risk. The data described in this report and in previously published reports indicate that the prevalence of chlamydia and gonorrhea is higher among adolescent females entering juvenile facilities than among women entering adult facilities (*8*). In the three county jails described in this report, the prevalence of chlamydial infection was higher among women aged ≤24 years than among women aged ≥25 years. In addition, women aged ≤24 years may be at higher risk than older women for complications from chlamydial and gonococcal infections (*9*).

The findings in this report are subject to at least two limitations. First, the findings are from corrections facilities in three cities, and the prevalence of STDs varies across facilities and may be substantially different in other U.S. cities. Second, although the nucleic acid amplification tests used at all of these facilities have greater sensitivity than previous testing methods, they are imperfect (*10*).

Each city and county in the United States should assess the feasibility of screening persons entering corrections facilities for STDs and compare the yield of screening this population with other screening activities. Local STD-control programs and corrections officials should collaborate to assess the contribution of STD screening in corrections facilities toward identifying and treating infections that would not be de-

STD Screening — Continued

tected otherwise and, if appropriate, implement screening to interrupt transmission of gonorrhea and chlamydia in communities.

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Bidi Use Among Urban Youth — Massachusetts, March–April 1999

Tobacco use is the leading preventable cause of death in the United States. Bidis are small, brown, hand-rolled cigarettes primarily made in India and other southeast Asian countries (*1*) consisting of tobacco wrapped in a tendu or temburni leaf (*Diospyros melanoxylon*). In the United States, bidis are purchased for $1.50–$4.00 for one package of 20 and are available in different flavors (e.g., cherry, chocolate, and mango). Anecdotal reports indicate that bidi use was first observed during the mid-1990s and seems to be widespread among youth and racial/ethnic minority adolescents. This report summarizes preliminary data collected from a convenience sample of adolescents surveyed during March and early April 1999 in Massachusetts on the prevalence of bidi use among urban youth; these data indicate that of 642 youth surveyed, 40% had smoked bidis at least once during their lifetimes and 16% were current bidi smokers.

The Massachusetts Tobacco Control Program conducted a pilot study to assess adolescents' knowledge and use of bidis. A convenience sample included a school- and community-based survey of youth from a large metropolitan area in Massachusetts. Peer leaders from a local tobacco-use prevention program and their adult advisors were granted access to three middle schools and seven high schools through professional networks (e.g., contact with the principal, health teacher, and nurse). Participants were given a set of standardized instructions and informed consent was obtained. Students surveyed in school were from health, science (e.g., biology, chemistry, and computer science), language (e.g., English or English as a second lan-

Bidi Use — Continued

guage), and history classes. After completing the surveys, participants were briefed about the intent of the survey. Peer leaders also assessed youth who attended local schools in several community neighborhoods. Data gathered in the community were from areas frequented by students (i.e., neighborhood stores, after-school programs, and bus and subway stations).

Community respondents were compared with school respondents. A greater proportion of community respondents reported heavy and past-month bidi use than school respondents. Community respondents also were more likely to be Hispanic and less likely to be white than school respondents. Analyses conducted by grade and race/ethnicity on two results (current and heavy bidi use) indicated no significant differences.

A total of 822 respondents participated in the study; 108 surveys with incomplete or inconsistent responses were eliminated. Of those 642 participants whose self-reported grade was seven through 12 (Table 1), 342 (55%) girls and 282 (45%) boys completed surveys (18 respondents did not report sex); 341 (53%) were surveyed in schools and 299 (47%) were surveyed in the community (two surveys were missing setting information); 232 (36%) were Hispanic, 220 (34%) were black (non-Hispanic), 82 (13%) were white (non-Hispanic), and 108 (17%) were other.*

Current bidi users were defined as having "smoked more than one bidi in the last 30 days." Lifetime bidi smokers were defined as having "smoked a bidi, even just one or two puffs." Heavy bidi smokers were defined as having "smoked more than 100 bidis in their lifetime." Data were analyzed using Statistical Package for the Social Sciences (SPSS) version 7.5. Prevalence of bidi use was compared by sex, race/ethnicity, grade, and overall (Table 1).

Two hundred fifty-six (40%) of the respondents had ever smoked bidis, 100 (16%) were current bidi users, and 50 (8%) were heavy bidi users. There were no significant differences in bidi use by sex, grade, or race/ethnicity. Responses (n=280) to the question why bidis were smoked instead of cigarettes included bidis tasted better (63 [23%]), were cheaper (49 [18%]), were safer (37 [13%]), and were easier to buy (33 [12%]). Other reasons included "just to try it" (20 [7%]), "to improve my mood" (17 [6%]), "it makes me look cool" (16 [6%]), "my friends smoke them" (four [1%]), "smoke them in place of cigarettes or marijuana" (four [1%]), "like the flavor" (three [1%]), and other (34 [12%]).

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Editorial Note: When tested on a standard smoking machine, bidis produced higher levels of carbon monoxide, nicotine, and tar than cigarettes (*1–3*); one study found that bidis produced approximately three times the amount of carbon monoxide and nicotine and approximately five times the amount of tar than cigarettes (*4*). Because of low combustibility of the tendu leaf wrapper, bidi smokers inhale more often and more deeply, breathing in greater quantities of tar and other toxins than cigarette smokers (*2–6*). Like all tobacco products, bidis are mutagenic and carcinogenic (*6*). Bidi smokers risk coronary heart disease (*7*), cancers of the oral cavity, pharynx, lar-

*When presented separately, numbers for other racial/ethnic groups were too small for meaningful analysis.

Bidi Use — Continued

TABLE 1. Percentage of middle and high school students surveyed who reported bidi use, by sex, race/ethnicity, and grade — Massachusetts, 1999

Characteristic	No.	Lifetime*		Current†		Heavy§	
		No.	(%)	No.	(%)	No.	(%)
Sex							
Female	342	121	(35)	43	(12)	18	(5)
Male	282	127	(45)	54	(19)	32	(11)
Race/Ethnicity							
White, non-Hispanic	82	32	(39)	9	(11)	5	(6)
Black, non-Hispanic	220	88	(40)	30	(14)	17	(8)
Hispanic	232	95	(41)	49	(21)	21	(9)
Other¶	108	41	(38)	12	(11)	7	(6)
Grade							
7	92	29	(31)	13	(14)	1	(1)
8	113	39	(34)	21	(19)	10	(9)
9	138	61	(44)	19	(14)	11	(8)
10	182	76	(42)	23	(13)	14	(8)
11	90	39	(43)	18	(20)	10	(11)
12	27	12	(44)	6	(22)	4	(15)
Overall	**642**	**256**	**(40)**	**100**	**(16)**	**50**	**(8)**

*Smoked at least once in lifetime (ever smoked, even one or two puffs).
†Smoked one or more in the last 30 days.
§Smoked ≥100 in lifetime.
¶When presented separately, numbers for other racial/ethnic groups were too small for meaningful analysis.

ynx (*1*), lung (*8,9*), esophagus, stomach, and liver (*1*). Perinatal mortality is also associated with bidi use during pregnancy (*10*).

The findings in this report are subject to at least five limitations. First, the external validity of this study may be limited by convenience sampling and may not represent the prevalence of bidi use among all students in these schools and communities. More representative surveys are needed to develop precise estimates of bidi use and to monitor trends over time. Second, participants surveyed in the community may have been subject to selection bias; peer leaders may have been more likely to approach those similar to them in age and race/ethnicity. Because most peer leaders were racial/ethnic minorities aged <16 years, the convenience sample surveyed in the community reflects these demographics. Third, the extent of underreporting and overreporting of bidi use cannot be determined. Fourth, the number or characteristics of students who refused to participate is not known. Finally, the sample was drawn from one large metropolitan area and may not represent persons from other urban areas in Massachusetts or the rest of the United States.

This investigation was the first in the United States to estimate the prevalence of bidi smoking among students in grades seven through 12. Preliminary findings from this study support the need for additional research on bidis, particularly on smoking prevalence among youth from differing geographic, educational, and socioeconomic backgrounds. The knowledge, attitudes, and behavioral patterns of bidi smokers also must be assessed to understand this phenomenon and to curtail use. Research should

Bidi Use — Continued

assess the psychosocial and contextual factors affecting bidi use, the influence of peer pressure, how bidis are smoked (as an initiation to smoking or following cigarette smoking), and whether bidis are smoked instead of cigarettes or to mask the use of other substances.

Adolescents in this study reported their preference for the taste of bidis over cigarettes and their belief that bidis are less expensive, easier to buy, and safer than cigarettes. The findings on prevalence, knowledge, and attitudes, especially if they are replicated in other communities, may demonstrate the need for actions to curtail youth access to bidis similar to measures for limiting access to cigarettes and smokeless tobacco. Adolescents should be alerted to the high toxicity of bidis to dispel the notion that bidis are safer to smoke than cigarettes. Additional research is needed to assess other factors affecting the use of novel tobacco products such as bidis, including how restrictions on access and advertising are being enforced, how pricing affects use of these products, the application of federal and state excise taxes, and appropriate labeling of these products with the Surgeon General's health warnings regarding tobacco use.

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Vaccination Campaign for Kosovar Albanian Refugee Children — Former Yugoslav Republic of Macedonia, April–May, 1999

Extensive ethnic conflict within the Kosovo region of the Federal Republic of Yugoslavia and an organized bombing campaign by the North Atlantic Treaty Organization led to mass population displacement in 1998 and early 1999. In April 1999, approximately 500,000 Kosovar Albanians fled into the Yugoslavian Republic of Montenegro and the neighboring countries of Albania, Bosnia-Herzegovina, and the Former Yugoslav Republic of Macedonia (FYROM) (*1*). Of the estimated 130,000 refugees who fled to FYROM, approximately 65,000 were housed in seven refugee camps (*1*). A major public health concern in these camps was the prevention of vaccine-preventable dis-

Kosovar Vaccination Campaign — Continued

eases, particularly measles. In response, the FYROM Ministry of Health (MOH) in collaboration with the United Nations Children's Fund (UNICEF) and International Medical Corps, a nongovernmental organization, planned and implemented a mass vaccination campaign. This report describes the first campaign (April 26–May 10, 1999), its results, and follow-up activities.

Vaccination Plan and Administration

Children aged <4 years without evidence of full vaccination on a valid vaccination card from the Federal Republic of Yugoslavia were vaccinated according to a schedule established by MOH and approved by the World Health Organization (WHO) and UNICEF. Children aged 0–2 months received Bacillus Calmette-Guérin vaccine, those aged 2–9 months received oral poliovirus vaccine (OPV) and diphtheria and tetanus toxoids and pertussis vaccine (DTP), and children aged 9–48 months received OPV and measles vaccine. The original vaccination plan called for three consecutive mass campaigns each separated by 30 days. After the first campaign, children of the appropriate age were to receive two additional doses of OPV and one additional dose of DTP in subsequent campaigns. This plan was modified to include weekly clinics at each camp.

In each camp, vaccination was preceded by a social mobilization effort that included posters, flyers, loudspeaker announcements, and meetings with camp management and community leaders. The vaccination campaign employed teams of 15–20 MOH and Kosovar Albanian physicians, nurses, and administrators. Physicians from the Republic Institute for Health Protection supervised the campaign teams and the Macedonian Institute for Mother and Child Health physicians coordinated cold chain support with the local health facilities. Continuous vaccination occurred from 9 a.m. to 4 p.m. for 2–4 days, depending on the size of the camp. Children who received vaccines were given vaccination cards created by UNICEF and MOH, and their names were recorded in a MOH registration book. Social mobilization continued during the campaign using volunteers who walked tent-to-tent informing families of the campaign. Vaccination in all seven refugee camps was completed during a 15-day period.

In five of the seven refugee camps, a tent-by-tent survey was conducted on the last day of the campaign to evaluate vaccination coverage. Volunteers and staff visited each tent to count all children aged <48 months living in that tent, those children vaccinated in camp (as indicated by a valid camp vaccination card), children with a valid card from the Federal Republic of Yugoslavia, and children not vaccinated because of contraindications. The numerator of the overall coverage rate for each camp was the number of children aged <48 months vaccinated in camp plus the number of children with a valid vaccination card from the Federal Republic of Yugoslavia. The denominator was the total number of children aged <48 months in a particular camp (Table 1).

Evaluation of the Vaccination Program

Of the 7995 children who presented to the vaccination sites in the seven camps during the initial campaign, 7239 (90.5%) were vaccinated, 260 (3.3%) were not vaccinated because of contraindications, and 496 (6.2%) had up-to-date vaccination cards from the Federal Republic of Yugoslavia (Table 1). In four of the five camps with complete tent-by-tent surveys, coverage rates were ≥89%. Vaccine coverage rates decreased during the weeks following the first campaign because of substantial

Kosovar Vaccination Campaign — Continued

TABLE 1. Results of the first vaccination campaign in seven refugee camps — Former Yugoslav Republic of Macedonia, April 26–May 10, 1999

Camp	Estimated target population*	Children examined	Children vaccinated	Children with contra-indications	Children with valid vaccination cards	Coverage
Brazda	2623	2547	2291	108	148	93%
Stankovec II	1755	1431	1257	62	112	78%
Neprosteno	†	388	361	4	23	—
Bojane	248	233	219	6	8	92%
Radusa	†	154	125	19	10	—
Senokos	315	314	295	5	14	98%
Cegrane	3227	2928	2691	56	181	89%
Total	**—**	**7995**	**7239**	**260**	**496**	**—**

*Derived from tent-to-tent survey on last day of campaign.
†Survey not completed.

fluctuations in the population. For example, in Brazda camp, 19,697 persons left and 3092 entered the camp during the 21 days between the end of the first vaccination campaign (April 29) and the first weekly clinic (May 20). The arrival of new refugees was greatest during the week between the first and second weekly clinic (May 20 and May 27) when an additional 5599 persons left Brazda camp and 9752 entered. The coverage rate measured during this week was 63%. One case of vaccine-preventable disease was documented in the refugee camps—a laboratory-confirmed case of measles during the first week of June.

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Editorial Note: Vaccination against measles is a major public health priority in the acute phase of any emergency involving large-scale displacement of a population (*2*). In past emergencies, up to 50% of deaths were attributed to measles (*3*). In contrast, outbreaks of other diseases prevented by routine Expanded Program of Immunization (EPI) vaccinations have not caused excess mortality in other refugee crises. Guidelines for vaccination in emergencies recommend that all children aged 6 months to 12 years be vaccinated against measles and receive an age-appropriate dose of vitamin A as soon as possible, often on camp entry (*4*). In addition to measles vaccine, WHO recommends that OPV be administered when a national immunization day* had not been conducted in the affected community during the previous 9 months (*5*).

Several factors raised concerns that risks for vaccine-preventable diseases might have been increased among Kosovar Albanian refugee children. First, camps were overcrowded, a condition strongly associated with increased risk for measles infection (*3*). Second, many refugee children were incompletely vaccinated because of the

*Mass campaigns over a short period (days to weeks) in which two doses of OPV are administered to all children in the target age group (usually aged 0–4 years) regardless of previous vaccination history, with an interval of 4–6 weeks between doses.

Kosovar Vaccination Campaign — Continued

ethnic conflict in the region since 1990 (*6,7*). These factors, and the history of a poliomyelitis outbreak in 1996 in Kosovo, made the implementation of a mass vaccination campaign for Kosovar Albanian refugees a primary concern for relief personnel in Macedonia.

Although the situation in Macedonian refugee camps was similar to previous refugee experiences, the vaccination plan differed in a number of ways. First, the vaccine schedule included more antigens (i.e., BCG and DTP) and targeted fewer children than other protocols for refugee emergencies. The additional antigens were administered because the Macedonian MOH requested that a vaccination schedule similar to EPI be adapted for use in the refugee camps. The MOH limited the campaign to children aged <4 years because coverage rates for children vaccinated in Kosovo before 1996 were thought to be adequate. Second, vitamin A supplementation was not included because this population was considered well nourished. Third, children were not vaccinated immediately on entering Macedonia because of lack of access to refugees at the border and the concern that vaccination would be psychologically traumatic. Access problems included the relatively short stay of refugees at the border and the unpredictable timing of their arrival and movement into Macedonia. Finally, the vaccination program in Macedonia was planned as an EPI in which children would be revaccinated every 30 days according to the schedule. Under this plan, no provision was made to vaccinate new refugees who arrived between campaigns.

The results of vaccination activities after the first mass vaccination campaign for refugees in camps in Macedonia demonstrate that rapid population turnover can substantially reduce camp-specific coverage rates in a short period. In addition, between the first campaign and the second week of weekly clinics, 44,417 refugees left Macedonian camps and 46,492 refugees arrived. Had the original vaccination plan been followed, coverage rates would have been much lower and newly arrived children would have been susceptible to measles for up to 1 month before being vaccinated.

The lack of vaccine-preventable diseases was most likely a result of a combination of factors, especially the relatively good health and nutritional condition of the refugees. Future refugee populations might be different, and existing recommendations for vaccinating displaced populations should be followed. Relief workers should attempt to vaccinate all eligible children against measles as soon as possible after camp entry to sustain a high measles vaccine coverage rate. Specific situations may dictate whether it is feasible to implement recommended protocols fully or to modify these protocols. However, any adaptations of recommended protocols must not hinder measles vaccination efforts.

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Public Health Dispatch

Outbreak of *Escherichia coli* O157:H7 and *Campylobacter* Among Attendees of the Washington County Fair — New York, 1999

On September 3, 1999, the New York State Department of Health (NYSDOH) received reports of at least 10 children hospitalized with bloody diarrhea or *Escherichia coli* O157:H7 infection in counties near Albany, New York. All of the children had attended the Washington County Fair, which was held August 23–29, 1999; approximately 108,000 persons attended the fair during that week. Subsequently, fair attendees infected with *Campylobacter jejuni* also were identified. An ongoing investigation includes heightened case-finding efforts, epidemiologic and laboratory studies, and an environmental investigation of the Washington County fairgrounds. This report presents the preliminary findings implicating contaminated well water.

To identify additional fair attendees with diarrhea, the NYSDOH issued press releases, conducted daily press briefings, and contacted emergency departments, laboratories, and infection-control practitioners by fax and telephone. Laboratories were asked to culture all diarrheal stool specimens for *E. coli* O157:H7 and subsequently for *Campylobacter* spp.

As of September 15, 921 persons reported diarrhea after attending the Washington County Fair. Stool cultures yielded *E. coli* O157:H7 from 116 persons; 13 of these persons were co-infected with *C. jejuni.* Stool cultures from 32 additional persons yielded only *Campylobacter*. Sixty-five persons have been hospitalized; 11 children have developed hemolytic uremic syndrome (HUS); and two persons died: a 3-year-old girl from HUS and a 79-year-old man from HUS/thrombotic thrombocytopenic purpura. Cases of diarrheal illness among fair attendees have been reported from 14 New York counties and four states.

An environmental investigation of the fairgrounds on September 3 determined that much of the fair was supplied with chlorinated water. However, in at least one area of the fair, a shallow well supplied unchlorinated water to several food vendors who used the water to make beverages and ice. Initial cultures of water from this well yielded high levels of coliforms and *E. coli*.

A case-control study was conducted to determine risk factors for infection. Case-patients were residents of Washington County who developed diarrhea after attending the fair and in whom stool cultures yielded *E. coli* O157:H7 or *Campylobacter.* Controls were residents of Washington County randomly selected from the telephone directory who had attended the fair and were frequency-matched by age group. Thirty-two case-patients and 84 controls were enrolled. Analysis was limited to those attending the fair at least once during the final 4 days of the fair because all ill persons, including those attending only once, attended during that period. Drinking water or

Public Health Dispatch — Continued

beverages made with water from the suspect well was associated with illness. Twenty-six (81%) of 32 case-patients and nine (16%) of 57 controls had consumed water from this well during the final 4 days of the fair (matched odds ratio=23.3; 95% confidence interval=6.3–86.9). When controlled for water consumption, other exposures, such as eating food at the fair and contact with manure, were not significantly associated with illness.

On September 9, the New York State Public Health Laboratory, the Wadsworth Center, used five different polymerase chain reaction assays to demonstrate the presence of *E. coli* O157:H7 DNA in water from the implicated well and subsequently isolated the organism from water samples from the well and the water distribution system. Pulsed-field gel electrophoresis testing by the Wadsworth Center showed that the DNA "fingerprints" of *E. coli* O157:H7 isolates from the well, the water distribution system, and most patients were similar. Water sampling for *Campylobacter* spp. is ongoing.

To prevent secondary transmission of enteric infection, letters were sent to schools and day care centers emphasizing the need to exclude symptomatic children and practice careful handwashing. Letters also were sent to nursing homes and hospitals with recommendations regarding employees and residents with diarrhea. Information to the public about the outbreak also focused on how to prevent secondary infections. On September 13, the state health commissioner issued an order requiring county fairgrounds to use disinfected water when hosting public events; the commissioner also is reviewing laws and regulations applicable to fairs.

Reported by: County health depts in the Capital District; New York state outbreak investigation team; A Novello, MD, Commissioner, New York State Dept of Health. Foodborne and Diarrheal Diseases Br, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; and EIS officers, CDC.

Notice to Readers

Final 1998 Reports of Notifiable Diseases

The notifiable diseases tables on pages 815–822 summarize final data for 1998. These data, final as of August 13, 1999, will be published in more detail in the *Summary of Notifiable Diseases, United States, 1998* (*1*).

Because no cases of anthrax, western equine encephalitis, or yellow fever were reported in the United States during 1998, these nationally notifiable diseases do not appear in these tables. Population estimates for the states are from the July 1, 1998, estimates by the U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, Population Division, Population Distribution Branch, Internet release ST-98-1, December 31, 1998 (*2*). Population numbers for territories are 1997 estimates from Bureau of the Census press releases CB98-54 (*3*) and CB98-80 (*4*).

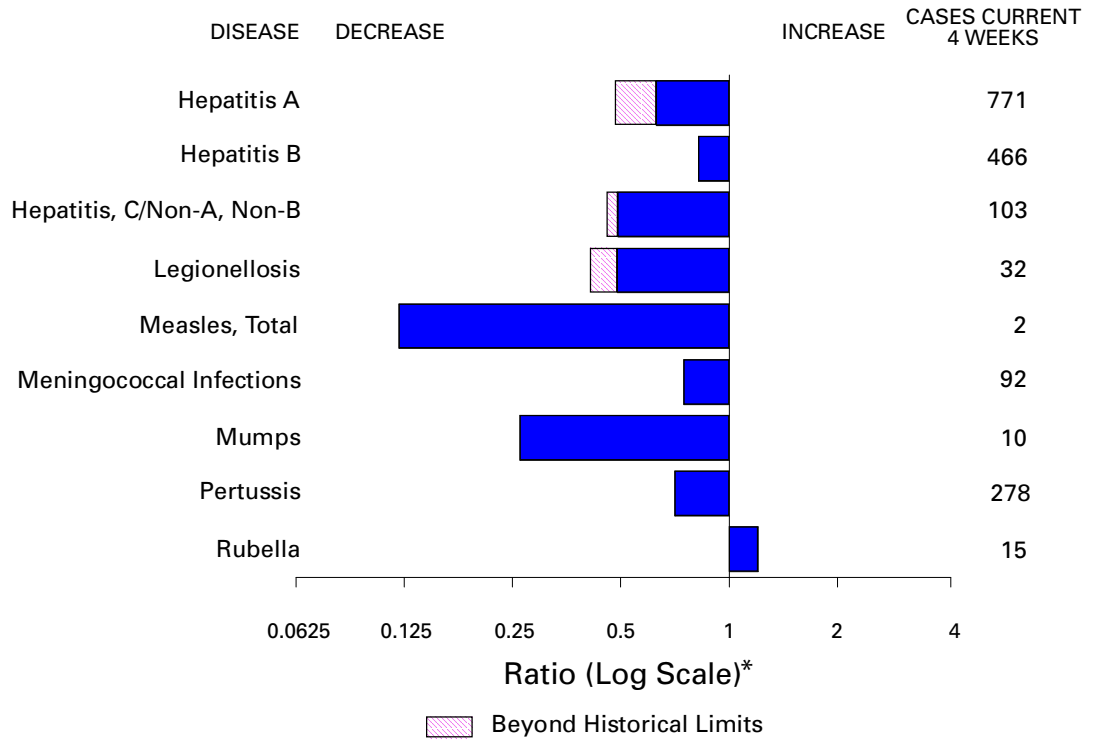
References

1. CDC. Summary of notifiable diseases, United States, 1998. MMWR 1999;48(no. 53)(in press).
2. Bureau of the Census. ST-98-1. State population estimates and demographic components of population change: July 1, 1997 to July 1, 1998. Available at http://www.census.gov/population/estimates/state/st-98-1.txt. Accessed September 13, 1999.

Notice to Readers — Continued

3. Bureau of the Census. Census bureau says Puerto Rico population nears 4 million [Press release]. Available at http://www.census.gov:80/Press-Release/cb98-54.html. Accessed September 13, 1999.
4. Bureau of the Census. Census bureau estimates population of U.S. outlying areas, first figures since 1990 census [Press release]. Available at http://www.census.gov:80/Press-Release/cb98-80.html. Accessed September 13, 1999.

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending September 11, 1999, with historical data — United States



*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 — provisional cases of selected notifiable diseases, United States, cumulative, week ending September 11, 1999 (36th Week)

	Cum. 1999		Cum. 1999
Anthrax	-	HIV infection, pediatric*§	100
Brucellosis*	32	Plague	5
Cholera	4	Poliomyelitis, paralytic	-
Congenital rubella syndrome	4	Psittacosis*	15
Cyclosporiasis*	47	Rabies, human	-
Diphtheria	3	Rocky Mountain spotted fever (RMSF)	372
Encephalitis: California*	23	Streptococcal disease, invasive Group A	1,530
eastern equine*	3	Streptococcal toxic-shock syndrome*	27
St. Louis*	-	Syphilis, congenital¶	122
western equine*	-	Tetanus	22
Ehrlichiosis human granulocytic (HGE)*	107	Toxic-shock syndrome	85
human monocytic (HME)*	26	Trichinosis	8
Hansen Disease*	61	Typhoid fever	215
Hantavirus pulmonary syndrome*†	16	Yellow fever	-
Hemolytic uremic syndrome, post-diarrheal*	63		

-: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 August 29, 1999.
¶ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending September 11, 1999, and September 12, 1998 (36th Week)

Reporting Area	AIDS		Chlamydia		Cryptosporidiosis		*Escherichia coli* O157:H7*			
							NETSS		PHLIS	
	Cum. 1999†	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	30,285	31,313	400,740	400,618	1,334	2,664	2,004	1,930	1,218	1,568
NEW ENGLAND	1,532	1,171	13,681	14,040	88	115	210	253	220	211
Maine	51	22	739	671	19	25	24	29	-	-
N.H.	36	25	645	674	10	12	24	34	24	38
Vt.	11	17	333	288	25	20	22	11	12	8
Mass.	1,005	582	6,363	5,721	33	53	118	122	115	122
R.I.	73	92	1,597	1,602	1	5	22	11	6	1
Conn.	356	433	4,004	5,084	-	-	U	46	63	42
MID. ATLANTIC	7,780	8,838	47,123	42,019	219	395	116	209	46	74
Upstate N.Y.	890	1,014	N	N	93	229	104	144	-	-
N.Y. City	4,062	4,969	21,963	18,454	107	150	6	11	13	12
N.J.	1,476	1,638	6,935	8,078	9	16	6	54	32	43
Pa.	1,352	1,217	18,222	15,487	10	-	N	N	1	19
E.N. CENTRAL	1,980	2,269	58,067	67,232	257	512	478	320	248	276
Ohio	291	490	17,240	18,087	33	51	139	81	103	51
Ind.	247	376	7,004	7,365	24	41	58	71	30	40
Ill.	933	880	19,583	18,226	17	61	104	92	33	64
Mich.	405	389	14,240	14,106	33	26	71	76	45	52
Wis.	104	134	U	9,448	150	333	N	N	37	69
W.N. CENTRAL	678	595	23,139	23,810	150	206	432	285	216	260
Minn.	114	118	4,704	4,776	58	73	178	106	121	121
Iowa	62	51	2,878	2,968	41	49	83	67	37	46
Mo.	340	280	8,595	8,639	20	18	32	35	38	48
N. Dak.	4	4	325	684	14	25	10	10	1	13
S. Dak.	13	13	1,100	1,070	6	19	37	21	13	24
Nebr.	45	56	2,082	1,883	10	18	71	25	-	-
Kans.	100	73	3,455	3,790	1	4	21	21	6	8
S. ATLANTIC	8,314	7,901	86,636	76,881	235	199	218	157	125	128
Del.	112	104	1,866	1,721	-	3	5	-	3	2
Md.	889	912	7,256	5,208	11	14	12	27	-	14
D.C.	321	634	N	N	8	5	-	1	-	-
Va.	508	649	10,058	9,020	17	11	52	-	42	45
W. Va.	46	60	1,204	1,655	-	1	8	8	4	6
N.C.	552	536	15,777	15,160	6	-	48	40	42	37
S.C.	764	503	8,311	12,412	-	-	17	8	14	5
Ga.	1,235	855	21,374	15,811	97	70	23	54	-	-
Fla.	3,887	3,648	20,790	15,894	96	95	53	19	20	19
E.S. CENTRAL	1,363	1,268	31,473	28,198	21	19	90	88	45	51
Ky.	201	193	4,876	4,374	5	8	24	27	-	-
Tenn.	540	431	9,721	9,178	6	6	43	37	28	32
Ala.	337	372	8,675	7,052	8	-	19	19	13	17
Miss.	285	272	8,201	7,594	2	5	4	5	4	2
W.S. CENTRAL	3,201	3,787	58,853	60,977	48	814	61	67	69	77
Ark.	123	136	3,963	2,673	1	6	9	7	7	8
La.	596	651	10,879	9,968	22	14	9	3	11	4
Okla.	94	224	5,418	6,820	4	-	15	12	11	6
Tex.	2,388	2,776	38,593	41,516	21	794	28	45	40	59
MOUNTAIN	1,174	1,050	22,148	22,337	70	98	178	258	80	198
Mont.	7	20	1,099	808	10	9	11	12	-	5
Idaho	16	19	1,155	1,370	7	16	21	30	8	19
Wyo.	6	1	484	453	1	-	10	51	5	54
Colo.	208	209	4,566	5,566	10	14	66	49	40	45
N. Mex.	67	166	2,733	2,453	27	37	8	17	3	15
Ariz.	607	384	8,703	7,834	9	14	23	31	14	25
Utah	102	91	1,441	1,508	-	-	28	55	8	21
Nev.	161	160	1,967	2,345	6	8	11	13	2	14
PACIFIC	4,263	4,434	59,620	65,124	246	306	221	293	169	293
Wash.	250	300	8,044	7,601	-	-	74	60	64	83
Oreg.	136	129	3,910	3,683	80	44	50	83	50	84
Calif.	3,803	3,878	44,460	50,831	166	259	93	146	48	114
Alaska	13	17	1,280	1,306	-	-	-	4	-	-
Hawaii	61	110	1,926	1,703	-	3	4	-	7	12
Guam	5	-	226	272	-	-	N	N	U	U
P.R.	936	1,243	U	U	-	-	5	5	U	U
V.I.	25	19	N	N	U	U	N	N	U	U
Amer. Samoa	-	-	U	U	U	U	N	N	U	U
C.N.M.I.	-	-	N	N	U	U	N	N	U	U

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

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

†Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update August 29, 1999.

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending September 11, 1999, and September 12, 1998 (36th Week)

Reporting Area	Gonorrhea		Hepatitis C/NA,NB		Legionellosis		Lyme Disease	
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	217,771	237,859	2,315	2,237	571	887	6,774	10,673
NEW ENGLAND	4,037	4,127	59	47	43	52	1,894	3,470
Maine	42	46	2	-	4	1	22	60
N.H.	77	68	-	-	4	3	5	28
Vt.	36	24	4	2	8	4	11	9
Mass.	1,761	1,470	50	42	16	25	781	611
R.I.	405	258	3	3	5	10	284	320
Conn.	1,716	2,261	-	-	6	9	791	2,442
MID. ATLANTIC	26,640	25,691	101	155	107	223	3,691	5,565
Upstate N.Y.	4,415	4,829	66	80	35	73	2,703	2,867
N.Y. City	9,463	8,243	-	-	9	30	27	172
N.J.	4,055	5,341	-	-	5	14	247	933
Pa.	8,707	7,278	35	75	58	106	714	1,593
E.N. CENTRAL	38,690	46,068	1,209	508	163	296	90	605
Ohio	10,421	11,559	1	7	55	95	58	32
Ind.	3,812	4,371	1	5	25	55	16	25
Ill.	14,210	15,146	26	34	10	37	10	11
Mich.	10,247	10,761	591	349	46	59	1	12
Wis.	U	4,231	590	113	27	50	5	525
W.N. CENTRAL	9,500	11,701	89	29	35	50	120	166
Minn.	1,792	1,785	4	9	5	5	71	125
Iowa	672	973	-	7	14	7	13	22
Mo.	4,448	6,252	76	10	11	14	17	11
N. Dak.	31	55	-	-	-	-	1	-
S. Dak.	125	170	-	-	2	3	-	-
Nebr.	941	771	3	2	3	15	6	3
Kans.	1,491	1,695	6	1	-	6	12	5
S. ATLANTIC	63,041	63,890	154	74	89	101	749	663
Del.	1,172	966	1	-	10	9	22	55
Md.	6,044	5,904	34	8	16	27	532	479
D.C.	1,273	3,103	1	-	3	6	3	4
Va.	6,605	5,948	10	11	21	16	83	48
W. Va.	363	596	13	5	-	-	14	8
N.C.	13,839	13,139	30	17	13	8	56	41
S.C.	4,741	7,820	17	3	7	7	5	3
Ga.	14,359	13,854	1	9	-	7	-	5
Fla.	14,645	12,560	47	21	19	21	34	20
E.S. CENTRAL	25,060	26,911	196	206	33	50	70	74
Ky.	2,145	2,511	14	16	16	25	6	18
Tenn.	7,813	7,999	83	122	14	13	36	31
Ala.	7,680	9,007	1	4	3	5	17	15
Miss.	7,422	7,394	98	64	-	7	11	10
W.S. CENTRAL	33,353	37,629	146	341	4	14	24	18
Ark.	2,024	2,831	8	14	-	1	4	6
La.	8,653	8,641	102	24	2	2	-	3
Okla.	2,665	3,714	12	8	2	8	4	2
Tex.	20,011	22,443	24	295	-	3	16	7
MOUNTAIN	6,308	6,216	105	296	36	53	11	12
Mont.	33	29	4	7	-	2	-	-
Idaho	55	129	6	86	1	2	2	3
Wyo.	18	21	34	69	-	1	3	1
Colo.	1,598	1,411	18	19	10	12	-	-
N. Mex.	555	607	7	72	1	2	1	4
Ariz.	3,103	2,840	22	6	5	14	-	-
Utah	137	161	6	19	13	16	3	-
Nev.	809	1,018	8	18	6	4	2	4
PACIFIC	11,142	15,626	256	581	61	48	125	100
Wash.	1,376	1,310	13	15	10	9	4	6
Oreg.	544	545	15	15	N	N	10	14
Calif.	8,742	13,204	228	497	50	37	111	79
Alaska	211	223	-	-	1	1	-	1
Hawaii	269	344	-	54	-	1	-	-
Guam	32	40	-	-	-	2	-	-
P.R.	193	284	-	-	-	-	-	-
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	28	U	U	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 September 11, 1999, and September 12, 1998 (36th Week)

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
					NETSS		PHLIS	
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	852	995	4,002	5,284	23,151	27,164	18,726	23,608
NEW ENGLAND	36	44	582	1,037	1,135	1,735	1,307	1,663
Maine	3	3	110	168	97	121	75	45
N.H.	2	3	38	54	94	122	106	174
Vt.	4	-	73	46	64	93	54	72
Mass.	15	16	136	367	810	975	718	986
R.I.	4	4	72	63	70	93	52	33
Conn.	8	18	153	339	U	331	302	353
MID. ATLANTIC	185	298	746	1,156	2,599	4,542	2,418	4,326
Upstate N.Y.	51	60	546	811	860	1,087	792	1,011
N.Y. City	84	175	U	U	880	1,410	682	1,187
N.J.	29	38	127	145	332	968	535	968
Pa.	21	25	73	200	527	1,077	409	1,160
E.N. CENTRAL	84	112	114	87	3,421	4,476	2,291	3,377
Ohio	18	9	29	47	838	1,059	623	864
Ind.	12	10	10	8	348	484	277	401
Ill.	20	47	6	-	1,101	1,404	399	992
Mich.	29	37	66	29	666	822	658	745
Wis.	5	9	3	3	468	707	334	375
W.N. CENTRAL	49	70	532	543	1,565	1,614	1,447	1,674
Minn.	21	39	81	92	453	385	477	448
Iowa	12	7	116	119	188	274	121	224
Mo.	12	13	12	29	463	455	635	616
N. Dak.	-	2	117	102	38	45	4	56
S. Dak.	-	-	117	124	72	77	58	90
Nebr.	-	1	2	6	138	125	-	30
Kans.	4	8	87	71	213	253	152	210
S. ATLANTIC	248	197	1,459	1,769	5,382	5,092	3,643	3,997
Del.	1	2	34	31	102	56	120	96
Md.	69	61	282	344	585	615	599	618
D.C.	13	14	-	-	57	53	-	-
Va.	51	39	375	418	930	699	739	640
W. Va.	1	1	80	61	106	111	109	111
N.C.	21	16	300	448	815	704	828	905
S.C.	11	5	107	104	373	354	287	344
Ga.	21	25	145	224	788	991	651	946
Fla.	60	34	136	139	1,626	1,509	310	337
E.S. CENTRAL	18	22	194	212	1,203	1,465	654	1,120
Ky.	6	4	31	27	282	269	-	124
Tenn.	7	11	65	112	327	393	359	506
Ala.	4	5	98	71	380	466	242	402
Miss.	1	2	-	2	214	337	53	88
W.S. CENTRAL	14	21	77	26	1,932	2,661	2,155	2,099
Ark.	1	1	14	26	386	334	116	252
La.	10	7	-	-	334	323	370	505
Okla.	2	2	63	-	228	303	212	144
Tex.	1	11	-	-	984	1,701	1,457	1,198
MOUNTAIN	34	50	137	174	2,098	1,732	1,409	1,527
Mont.	4	1	47	39	45	61	1	39
Idaho	3	7	-	-	68	81	56	69
Wyo.	1	-	32	53	36	47	22	42
Colo.	14	14	1	22	541	406	537	385
N. Mex.	2	11	8	5	258	218	174	195
Ariz.	5	8	43	34	658	540	541	535
Utah	3	1	4	16	368	242	25	121
Nev.	2	8	2	5	124	137	53	141
PACIFIC	184	181	161	280	3,816	3,847	3,402	3,825
Wash.	18	16	-	-	451	328	576	475
Oreg.	15	13	1	3	331	220	387	250
Calif.	143	146	153	254	2,740	3,078	2,217	2,879
Alaska	1	2	7	23	35	38	6	21
Hawaii	7	4	-	-	259	183	216	200
Guam	-	2	-	-	20	21	U	U
P.R.	-	-	46	37	254	523	U	U
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	25	U	U

N: Not notifiable U: Unavailable -: no reported cases

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

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending September 11, 1999, and September 12, 1998 (36th Week)

Reporting Area	Shigellosis*				Syphilis (Primary & Secondary)		Tuberculosis	
	NETSS		PHLIS					
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999†	Cum. 1998†
UNITED STATES	9,596	13,628	4,561	7,690	4,383	4,871	9,705	11,169
NEW ENGLAND	421	319	380	287	36	52	273	308
Maine	4	11	-	-	-	1	13	6
N.H.	13	10	11	15	-	1	6	-
Vt.	5	6	3	-	3	4	1	3
Mass.	382	211	315	203	22	33	160	176
R.I.	17	25	9	13	1	1	29	38
Conn.	U	56	42	56	10	12	64	85
MID. ATLANTIC	560	1,745	303	1,399	157	211	1,779	1,976
Upstate N.Y.	203	376	42	125	23	28	211	246
N.Y. City	182	559	82	520	67	46	964	968
N.J.	103	514	121	531	37	70	361	421
Pa.	72	296	58	223	30	67	243	341
E.N. CENTRAL	1,712	1,971	741	1,030	805	722	857	1,130
Ohio	326	376	92	92	68	96	179	169
Ind.	180	119	42	33	287	136	55	109
Ill.	659	1,064	354	857	298	298	384	534
Mich.	292	196	188	4	152	141	200	245
Wis.	255	216	65	44	U	51	39	73
W.N. CENTRAL	779	760	518	445	91	97	304	312
Minn.	162	240	181	271	7	6	107	102
Iowa	23	55	16	37	8	-	33	27
Mo.	504	86	285	65	60	75	119	115
N. Dak.	2	6	-	3	-	-	2	7
S. Dak.	11	29	5	21	-	1	12	14
Nebr.	40	311	-	16	6	4	12	11
Kans.	37	33	31	32	10	11	19	36
S. ATLANTIC	1,672	2,928	346	924	1,438	1,766	2,115	1,936
Del.	12	23	7	19	6	17	12	27
Md.	104	145	28	51	265	482	181	212
D.C.	42	16	-	-	33	60	34	78
Va.	88	141	43	69	116	109	168	187
W. Va.	7	11	3	7	2	2	30	30
N.C.	152	221	66	104	356	521	314	278
S.C.	94	116	47	52	192	195	201	212
Ga.	146	799	37	196	248	194	423	360
Fla.	1,027	1,456	115	426	220	186	752	552
E.S. CENTRAL	833	612	416	410	799	837	628	804
Ky.	187	91	-	45	67	77	112	114
Tenn.	509	124	368	179	456	396	245	253
Ala.	82	358	40	179	153	195	215	280
Miss.	55	39	8	7	123	169	56	157
W.S. CENTRAL	1,366	2,599	1,350	823	697	735	1,019	1,617
Ark.	61	137	21	40	40	84	119	86
La.	118	176	72	200	200	298	U	127
Okla.	357	249	123	65	136	46	92	121
Tex.	830	2,037	1,134	518	321	307	808	1,283
MOUNTAIN	649	848	360	524	164	176	279	376
Mont.	7	8	-	3	1	-	10	15
Idaho	17	15	7	12	1	2	14	7
Wyo.	3	1	1	-	-	1	2	4
Colo.	110	140	80	108	1	8	U	43
N. Mex.	86	205	40	106	9	22	41	45
Ariz.	336	420	225	262	144	127	155	139
Utah	47	32	1	25	2	3	30	42
Nev.	43	27	6	8	6	13	27	81
PACIFIC	1,604	1,846	147	1,848	196	275	2,451	2,710
Wash.	72	113	65	118	48	23	131	182
Oreg.	60	101	59	97	6	4	66	95
Calif.	1,446	1,598	-	1,598	138	245	2,099	2,273
Alaska	-	4	-	2	1	1	40	36
Hawaii	26	30	23	33	3	2	115	124
Guam	7	29	U	U	1	1	-	62
P.R.	60	45	U	U	109	141	41	108
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	18	U	U	U	164	U	77

N: Not notifiable U: Unavailable -: no reported cases

*Individual cases may 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 September 11, 1999, and September 12, 1998 (36th Week)

Reporting Area	*H. influenzae*, invasive		Hepatitis (Viral), by type				Measles (Rubeola)					
			A		B		Indigenous		Imported*		Total	
	Cum. 1999†	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	1999	Cum. 1999	1999	Cum. 1999	Cum. 1999	Cum. 1998
UNITED STATES	820	788	10,431	15,590	4,521	6,784	-	37	-	19	56	50
NEW ENGLAND	59	52	148	207	69	149	-	6	-	4	10	3
Maine	5	2	5	16	1	2	-	-	-	-	-	-
N.H.	14	8	11	9	10	11	-	-	-	1	1	-
Vt.	5	5	6	13	2	6	-	-	-	-	-	1
Mass.	22	33	55	85	31	55	-	5	-	2	7	2
R.I.	1	3	13	12	25	49	-	-	-	-	-	-
Conn.	12	1	58	72	-	26	U	1	U	1	2	-
MID. ATLANTIC	128	123	658	1,205	493	882	-	-	-	2	2	13
Upstate N.Y.	62	42	179	247	140	171	-	-	-	2	2	2
N.Y. City	28	35	173	414	151	305	-	-	-	-	-	-
N.J.	37	39	57	243	40	157	U	-	U	-	-	8
Pa.	1	7	249	301	162	249	-	-	-	-	-	3
E.N. CENTRAL	128	135	1,945	2,447	445	1,013	-	1	-	1	2	15
Ohio	47	42	473	235	70	56	-	-	-	-	-	1
Ind.	20	35	78	108	33	78	-	1	-	-	1	3
Ill.	51	48	366	568	-	177	-	-	-	-	-	-
Mich.	10	5	1,002	1,385	341	326	-	-	-	1	1	10
Wis.	-	5	26	151	1	376	-	-	-	-	-	1
W.N. CENTRAL	70	73	552	1,091	228	285	-	-	-	-	-	-
Minn.	33	57	54	95	37	33	-	-	-	-	-	-
Iowa	7	2	102	370	27	45	-	-	-	-	-	-
Mo.	21	8	307	501	125	170	-	-	-	-	-	-
N. Dak.	1	-	2	3	-	4	-	-	-	-	-	-
S. Dak.	1	-	8	21	1	2	-	-	-	-	-	-
Nebr.	3	-	41	21	11	12	-	-	-	-	-	-
Kans.	4	6	38	80	27	19	-	-	-	-	-	-
S. ATLANTIC	194	144	1,396	1,287	863	717	-	1	-	4	5	8
Del.	-	-	2	3	-	-	-	-	-	-	-	1
Md.	50	44	253	284	125	103	-	-	-	-	-	1
D.C.	4	-	53	43	19	10	-	-	-	-	-	-
Va.	14	15	109	158	66	75	-	1	-	2	3	2
W. Va.	6	5	26	3	17	5	-	-	-	-	-	-
N.C.	28	23	111	81	182	158	-	-	-	-	-	-
S.C.	5	3	30	23	58	26	-	-	-	-	-	-
Ga.	51	31	344	361	108	123	-	-	-	-	-	2
Fla.	36	23	468	331	288	217	-	-	-	2	2	2
E.S. CENTRAL	51	42	286	285	325	344	-	-	-	-	-	2
Ky.	6	7	51	23	31	36	-	-	-	-	-	-
Tenn.	28	23	142	165	172	191	-	-	-	-	-	1
Ala.	15	10	44	52	64	48	-	-	-	-	-	1
Miss.	2	2	49	45	58	69	-	-	-	-	-	-
W.S. CENTRAL	41	41	1,934	2,753	624	1,513	-	5	-	3	8	-
Ark.	2	-	39	69	35	75	-	-	-	-	-	-
La.	7	19	73	47	77	67	-	-	-	-	-	-
Okla.	28	20	336	410	94	59	U	-	U	-	-	-
Tex.	4	2	1,486	2,227	418	1,312	-	5	-	3	8	-
MOUNTAIN	69	89	944	2,385	431	597	-	3	-	-	3	-
Mont.	1	-	16	73	16	5	-	-	-	-	-	-
Idaho	1	-	31	193	21	25	-	-	-	-	-	-
Wyo.	1	1	5	29	10	3	-	-	-	-	-	-
Colo.	10	19	166	205	67	76	-	-	-	-	-	-
N. Mex.	18	5	38	109	142	233	-	-	-	-	-	-
Ariz.	30	43	562	1,467	113	137	-	1	-	-	1	-
Utah	6	3	36	149	24	55	-	2	-	-	2	-
Nev.	2	18	90	160	38	63	-	-	-	-	-	-
PACIFIC	80	89	2,568	3,930	1,043	1,284	-	21	-	5	26	9
Wash.	3	6	224	778	46	69	-	-	-	-	-	1
Oreg.	30	36	187	301	58	133	-	9	-	-	9	-
Calif.	37	39	2,141	2,794	917	1,063	-	12	-	4	16	7
Alaska	5	1	6	15	12	10	-	-	-	-	-	1
Hawaii	5	7	10	42	10	9	-	-	-	1	1	-
Guam	-	-	2	1	2	2	U	1	U	-	1	-
P.R.	1	2	110	49	101	182	U	-	U	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	3	U	53	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 157 cases among children aged <5 years, serotype was reported for 81 and of those, 21 were type b.

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending September 11, 1999, and September 12, 1998 (36th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998
UNITED STATES	1,729	1,944	2	226	496	47	3,658	4,046	-	180	330
NEW ENGLAND	87	83	-	4	6	-	420	706	-	7	38
Maine	5	5	-	-	-	-	-	5	-	-	-
N.H.	12	10	-	1	-	-	70	65	-	-	-
Vt.	4	1	-	1	-	-	40	64	-	-	-
Mass.	50	39	-	2	4	-	279	530	-	7	8
R.I.	4	3	-	-	-	-	20	7	-	-	1
Conn.	12	25	U	-	2	U	11	35	U	-	29
MID. ATLANTIC	159	202	-	27	171	2	624	416	-	22	144
Upstate N.Y.	44	52	-	8	3	2	538	215	-	18	114
N.Y. City	43	24	-	3	153	-	10	23	-	-	16
N.J.	39	48	U	-	6	U	12	13	U	1	13
Pa.	33	78	-	16	9	-	64	165	-	3	1
E.N. CENTRAL	288	306	-	28	61	11	332	518	-	2	-
Ohio	114	110	-	11	23	5	156	189	-	-	-
Ind.	40	52	-	4	5	3	49	84	-	1	-
Ill.	76	83	-	6	9	-	46	51	-	1	-
Mich.	34	37	-	7	22	3	38	48	-	-	-
Wis.	24	24	-	-	2	-	43	146	-	-	-
W.N. CENTRAL	188	167	-	10	25	11	251	310	-	84	32
Minn.	40	29	-	1	12	-	126	177	-	5	-
Iowa	35	28	-	4	9	11	44	57	-	29	-
Mo.	71	63	-	2	3	-	36	25	-	2	2
N. Dak.	3	3	-	-	1	-	4	3	-	-	-
S. Dak.	11	6	-	-	-	-	5	8	-	-	-
Nebr.	10	11	-	-	-	-	1	13	-	48	-
Kans.	18	27	-	3	-	-	35	27	-	-	30
S. ATLANTIC	305	322	2	39	35	9	283	211	-	35	13
Del.	7	1	-	-	-	-	4	3	-	-	-
Md.	44	24	-	3	-	4	75	38	-	1	1
D.C.	1	-	-	2	-	-	-	1	-	-	-
Va.	36	27	-	8	6	-	13	19	-	-	-
W. Va.	5	12	-	-	-	-	2	1	-	-	-
N.C.	34	46	-	8	10	-	73	75	-	34	9
S.C.	35	47	-	3	6	-	14	22	-	-	-
Ga.	49	72	1	4	1	1	26	18	-	-	-
Fla.	94	93	1	11	12	4	76	34	-	-	3
E.S. CENTRAL	115	142	-	9	13	1	64	95	-	1	1
Ky.	23	23	-	-	-	-	16	39	-	-	-
Tenn.	46	52	-	-	1	-	28	30	-	-	1
Ala.	27	40	-	8	7	1	16	22	-	1	-
Miss.	19	27	-	1	5	-	4	4	-	-	-
W.S. CENTRAL	148	231	-	29	46	-	130	261	-	7	87
Ark.	31	26	-	-	7	-	17	50	-	-	-
La.	34	47	-	3	6	-	3	5	-	-	-
Okla.	25	31	U	1	-	U	12	20	U	-	-
Tex.	58	127	-	25	33	-	98	186	-	7	87
MOUNTAIN	103	109	-	12	30	4	399	680	-	18	5
Mont.	2	4	-	-	-	-	2	7	-	-	-
Idaho	8	9	-	1	4	-	93	173	-	-	-
Wyo.	4	5	-	-	1	-	2	8	-	-	-
Colo.	27	21	-	3	6	1	127	176	-	3	-
N. Mex.	13	19	N	N	N	2	89	78	-	-	1
Ariz.	29	35	-	-	5	-	30	140	-	13	1
Utah	13	10	-	5	4	1	53	66	-	1	2
Nev.	7	6	-	3	10	-	3	32	-	1	1
PACIFIC	336	382	-	68	109	9	1,155	849	-	4	10
Wash.	51	54	-	2	7	2	545	231	-	-	5
Oreg.	57	65	N	N	N	2	32	64	-	-	-
Calif.	219	256	-	55	77	5	550	527	-	4	3
Alaska	5	3	-	1	2	-	4	14	-	-	-
Hawaii	4	4	-	10	23	-	24	13	-	-	2
Guam	1	2	U	1	2	U	1	-	U	-	-
P.R.	5	9	U	-	2	U	16	4	U	-	6
V.I.	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	2	U	U	1	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

TABLE IV. Deaths in 122 U.S. cities,* week ending September 11, 1999 (36th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	>65	45-64	25-44	1-24	<1	
NEW ENGLAND	478	347	78	26	15	12	32
Boston, Mass.	130	89	25	4	7	5	11
Bridgeport, Conn.	39	31	7	1	-	-	2
Cambridge, Mass.	22	18	2	1	1	-	-
Fall River, Mass.	24	16	6	1	-	1	-
Hartford, Conn.	40	32	6	1	1	-	2
Lowell, Mass.	14	10	1	1	2	-	1
Lynn, Mass.	18	13	3	2	-	-	2
New Bedford, Mass.	20	17	3	-	-	-	1
New Haven, Conn.	21	16	3	-	-	2	3
Providence, R.I.	38	27	5	4	1	1	1
Somerville, Mass.	4	4	-	-	-	-	-
Springfield, Mass.	23	14	6	2	1	-	3
Waterbury, Conn.	24	18	3	2	1	-	2
Worcester, Mass.	61	42	8	7	1	3	4
MID. ATLANTIC	2,090	1,469	395	147	38	38	92
Albany, N.Y.	45	38	5	-	1	1	1
Allentown, Pa.	U	U	U	U	U	U	U
Buffalo, N.Y.	82	52	20	4	2	1	7
Camden, N.J.	45	25	9	3	3	5	7
Elizabeth, N.J.	15	11	2	2	-	-	-
Erie, Pa.	42	35	4	2	1	-	3
Jersey City, N.J.	35	23	12	-	-	-	-
New York City, N.Y.	994	685	203	76	15	15	23
Newark, N.J.	45	21	9	12	-	3	-
Paterson, N.J.	15	9	2	1	2	1	-
Philadelphia, Pa.	392	283	69	27	7	6	17
Pittsburgh, Pa.§	38	24	7	4	3	-	2
Reading, Pa.	26	25	1	-	-	-	1
Rochester, N.Y.	103	80	11	8	2	2	9
Schenectady, N.Y.	26	18	8	-	-	-	1
Scranton, Pa.	29	23	2	3	-	1	1
Syracuse, N.Y.	90	72	12	2	2	2	16
Trenton, N.J.	47	27	17	2	-	1	3
Utica, N.Y.	21	18	2	1	-	-	1
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	1,592	1,115	289	110	47	31	79
Akron, Ohio	43	29	7	3	3	1	-
Canton, Ohio	46	34	9	2	1	-	2
Chicago, Ill.	443	281	97	41	17	7	34
Cincinnati, Ohio	66	44	12	6	3	1	2
Cleveland, Ohio	108	77	22	4	4	1	1
Columbus, Ohio	167	117	23	11	7	9	8
Dayton, Ohio	107	76	16	7	6	2	3
Detroit, Mich.	U	U	U	U	U	U	U
Evansville, Ind.	35	28	5	2	-	-	2
Fort Wayne, Ind.	38	30	5	3	-	-	2
Gary, Ind.	19	10	5	1	2	1	-
Grand Rapids, Mich.	53	42	6	4	-	1	4
Indianapolis, Ind.	119	87	20	7	1	4	6
Lansing, Mich.	24	21	1	2	-	-	3
Milwaukee, Wis.	78	50	21	5	1	1	1
Peoria, Ill.	44	38	2	4	-	-	1
Rockford, Ill.	44	33	11	-	-	-	1
South Bend, Ind.	30	25	1	3	-	1	4
Toledo, Ohio	67	45	17	2	1	2	4
Youngstown, Ohio	61	48	9	3	1	-	1
W.N. CENTRAL	590	423	96	42	13	16	32
Des Moines, Iowa	85	63	15	6	1	-	7
Duluth, Minn.	35	23	9	2	-	1	3
Kansas City, Kans.	U	U	U	U	U	U	U
Kansas City, Mo.	92	66	12	9	2	3	5
Lincoln, Nebr.	32	25	2	2	2	1	-
Minneapolis, Minn.	153	117	22	7	5	2	8
Omaha, Nebr.	U	U	U	U	U	U	U
St. Louis, Mo.	111	66	25	13	2	5	4
St. Paul, Minn.	82	63	11	3	1	4	5
Wichita, Kans.	U	U	U	U	U	U	U
S. ATLANTIC	922	610	193	77	23	18	47
Atlanta, Ga.	U	U	U	U	U	U	U
Baltimore, Md.	114	61	30	15	8	-	5
Charlotte, N.C.	87	56	16	8	4	3	10
Jacksonville, Fla.	135	89	28	13	2	3	2
Miami, Fla.	102	54	31	11	3	3	-
Norfolk, Va.	31	22	7	2	-	-	1
Richmond, Va.	54	39	6	5	-	4	1
Savannah, Ga.	U	U	U	U	U	U	U
St. Petersburg, Fla.	52	40	8	2	2	-	4
Tampa, Fla.	152	114	23	10	2	3	19
Washington, D.C.	178	124	39	11	2	2	5
Wilmington, Del.	17	11	5	-	-	-	-
E.S. CENTRAL	634	441	117	41	20	11	26
Birmingham, Ala.	106	70	22	4	4	2	5
Chattanooga, Tenn.	57	49	3	2	2	1	1
Knoxville, Tenn.	72	50	13	6	1	2	-
Lexington, Ky.	33	26	6	-	-	1	-
Memphis, Tenn.	167	107	34	13	10	3	8
Mobile, Ala.	37	28	6	3	-	-	-
Montgomery, Ala.	67	50	12	3	1	1	4
Nashville, Tenn.	95	61	21	10	2	1	8
W.S. CENTRAL	1,357	870	304	111	43	29	64
Austin, Tex.	66	56	6	2	1	1	3
Baton Rouge, La.	39	17	8	7	7	-	-
Corpus Christi, Tex.	54	36	13	4	-	1	1
Dallas, Tex.	175	107	44	16	7	1	-
El Paso, Tex.	60	41	9	6	1	3	1
Ft. Worth, Tex.	76	57	7	10	-	2	6
Houston, Tex.	322	188	93	20	12	9	18
Little Rock, Ark.	75	50	12	7	3	3	5
New Orleans, La.	110	63	27	13	4	3	9
San Antonio, Tex.	182	126	38	11	5	2	12
Shreveport, La.	102	60	27	11	2	2	5
Tulsa, Okla.	96	69	20	4	1	2	4
MOUNTAIN	712	473	141	70	16	12	31
Albuquerque, N.M.	99	74	15	7	2	1	2
Boise, Idaho	48	31	11	4	1	1	3
Colo. Springs, Colo.	41	29	8	2	2	-	2
Denver, Colo.	73	43	17	13	-	-	10
Las Vegas, Nev.	170	107	41	16	3	3	4
Ogden, Utah	U	U	U	U	U	U	U
Phoenix, Ariz.	56	34	11	6	2	3	2
Pueblo, Colo.	26	20	3	2	1	-	1
Salt Lake City, Utah	93	65	15	8	2	3	5
Tucson, Ariz.	106	70	20	12	3	1	2
PACIFIC	1,158	823	201	77	30	26	95
Berkeley, Calif.	13	6	6	1	-	-	3
Fresno, Calif.	92	71	15	2	3	1	8
Glendale, Calif.	11	9	2	-	-	-	-
Honolulu, Hawaii	63	49	5	2	3	4	5
Long Beach, Calif.	77	57	12	4	1	3	7
Los Angeles, Calif.	270	182	42	32	10	4	11
Pasadena, Calif.	23	19	2	-	1	1	4
Portland, Oreg.	76	51	13	6	5	1	2
Sacramento, Calif.	124	77	33	9	1	4	15
San Diego, Calif.	115	81	17	6	5	5	18
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	137	113	18	5	-	1	14
Santa Cruz, Calif.	21	17	3	1	-	-	3
Seattle, Wash.	82	55	20	6	1	-	1
Spokane, Wash.	54	36	13	3	-	2	4
Tacoma, Wash.	U	U	U	U	U	U	U
TOTAL	9,533¶	6,571	1,814	701	245	193	498

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 or more. 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.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998

Area	Total resident population (in thousands)	AIDS*	Botulism		Brucellosis	Chancroid†
			Foodborne	Infant		
United States	**270,296**	**46,521§**	**22**	**66**	**79**	**189**
New England	**13,429**	**1,811**	**–**	**–**	**–**	**2**
Maine	1,244	31	–	–	–	–
N.H.	1,185	42	–	–	–	–
Vt.	591	20	–	–	–	–
Mass.	6,147	924	–	–	–	–
R.I.	988	128	–	–	–	–
Conn.	3,274	666	–	–	–	2
Mid. Atlantic	**38,291**	**12,588**	**2**	**15**	**2**	**82**
Upstate N.Y.	10,850	1,581	–	3	1	–
N.Y. City	7,325	7,133	–	1	1	82
N.J.	8,115	2,134	2	9	–	–
Pa.	12,001	1,740	–	2	–	–
E.N. Central	**44,194**	**3,390**	**–**	**8**	**9**	**6**
Ohio	11,209	685	–	4	1	3
Ind.	5,899	484	–	–	–	1
Ill.	12,045	1,304	–	3	5	–
Mich.	9,817	714	–	–	3	–
Wis.	5,224	203	–	1	–	2
W.N. Central	**18,694**	**927**	**–**	**–**	**5**	**1**
Minn.	4,725	190	–	–	1	–
Iowa	2,862	75	–	NN	1	–
Mo.	5,439	443	–	–	3	–
N. Dak.	638	6	–	–	NN	NN
S. Dak.	738	15	–	–	–	–
Nebr.	1,663	72	–	–	–	–
Kans.	2,629	126	–	–	–	1
S. Atlantic	**48,944**	**12,194**	**1**	**3**	**9**	**40**
Del.	744	174	–	–	1	–
Md.	5,135	1,639	–	1	1	–
D.C.	523	989	–	–	–	–
Va.	6,791	998	1	–	1	7
W. Va.	1,811	86	–	–	–	–
N.C.	7,546	788	–	2	1	9
S.C.	3,836	777	–	–	NN	19
Ga.	7,642	1,295	–	–	2	2
Fla.	14,916	5,448	–	–	3	3
E.S. Central	**16,471**	**1,874**	**–**	**4**	**5**	**4**
Ky.	3,936	280	–	3	1	–
Tenn.	5,431	695	–	1	2	–
Ala.	4,352	484	–	–	1	1
Miss.	2,752	415	–	–	1	3
W.S. Central	**30,014**	**5,406**	**–**	**5**	**29**	**42**
Ark.	2,538	203	–	–	2	7
La.	4,369	951	–	–	1	1
Okla.	3,347	285	–	–	–	–
Tex.	19,760	3,967	–	5	26	34
Mountain	**16,814**	**1,632**	**1**	**8**	**3**	**3**
Mont.	880	29	1	–	–	–
Idaho	1,229	32	–	1	1	–
Wyo.	481	6	–	–	–	1
Colo.	3,971	314	–	3	1	–
N. Mex.	1,737	209	–	–	–	–
Ariz.	4,669	645	–	–	1	2
Utah	2,100	139	–	1	–	–
Nev.	1,747	258	–	3	–	–
Pacific	**43,445**	**6,489**	**18**	**23**	**17**	**9**
Wash.	5,689	441	6	–	3	1
Oreg.	3,282	204	–	4	–	–
Calif.	32,667	5,654	4	19	12	8
Alaska	614	29	8	–	2	–
Hawaii	1,193	161	–	–	–	–
Guam	145	2	–	–	–	–
P.R.	3,860	1,711	–	–	–	2
V.I.	114	35	NN	NN	NN	–
American Samoa	60	–	NA	NA	NA	NA
C.N.M.I.	63	–	NA	NA	NA	NA

*Totals reported to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), through December 31, 1998.
†Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999.
§Total includes 210 cases in persons with unknown state of residence.

NA: Not Available
NN: Not Notifiable
–: No reported cases

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 (continued)

Area	*Chlamydia trachomatis* infection*	Cholera	Cryptosporidiosis	Diphtheria	Encephalitis	
					California	Eastern equine
United States	**607,602**	**17**	**3,793**	**1**	**109**	**4**
New England	**20,093**	**1**	**152**	**–**	**–**	**1**
Maine	1,073	–	33	–	–	–
N.H.	960	–	18	–	–	–
Vt.	413	–	26	–	–	–
Mass.	8,363	–	68	–	–	–
R.I.	2,307	–	7	–	–	1
Conn.	6,977	1	–	–	–	–
Mid. Atlantic	**62,533**	**1**	**580**	**–**	**–**	**–**
Upstate N.Y.	NN	–	343	–	–	–
N.Y. City	26,218	1	208	–	–	–
N.J.	11,686	–	29	–	–	–
Pa.	24,629	–	NN	–	–	–
E.N. Central	**100,984**	**–**	**737**	**–**	**36**	**1**
Ohio	27,786	–	75	–	23	–
Ind.	10,801	–	63	–	1	1
Ill.	26,363	–	84	–	4	–
Mich.	22,156	–	39	–	–	–
Wis.	13,878	–	476	–	8	–
W.N. Central	**35,920**	**–**	**374**	**–**	**6**	**–**
Minn.	6,970	–	173	–	4	–
Iowa	5,174	–	66	–	2	–
Mo.	12,670	–	29	–	–	–
N. Dak.	1,036	–	34	–	–	–
S. Dak.	1,572	–	25	–	–	–
Nebr.	2,911	–	36	–	–	–
Kans.	5,587	–	11	–	–	–
S. Atlantic	**126,145**	**–**	**430**	**–**	**53**	**1**
Del.	2,608	–	3	–	–	–
Md.	13,097	–	21	–	–	–
D.C.	3,182	–	25	–	–	–
Va.	13,561	–	22	–	3	1
W. Va.	2,791	–	3	–	46	–
N.C.	22,197	–	NN	–	4	–
S.C.	18,510	–	–	–	–	–
Ga.	25,250	–	152	–	–	–
Fla.	24,949	–	204	–	–	–
E.S. Central	**40,837**	**–**	**27**	**–**	**14**	**–**
Ky.	6,441	–	10	–	4	–
Tenn.	13,717	–	11	–	10	–
Ala.	10,065	–	NN	–	–	–
Miss.	10,614	–	6	–	–	–
W.S. Central	**89,140**	**3**	**932**	**–**	**–**	**1**
Ark.	4,123	–	6	–	–	–
La.	15,188	3	20	–	–	1
Okla.	9,393	–	NN	–	–	–
Tex.	60,436	–	906	–	–	–
Mountain	**34,096**	**2**	**124**	**–**	**–**	**–**
Mont.	1,412	–	10	–	–	–
Idaho	2,035	–	17	–	–	–
Wyo.	725	–	2	–	–	–
Colo.	9,113	1	19	–	–	–
N. Mex.	3,793	–	48	–	–	–
Ariz.	11,489	–	19	–	–	–
Utah	2,209	–	NN	–	–	–
Nev.	3,320	1	9	–	–	–
Pacific	**97,854**	**10**	**437**	**1**	**–**	**–**
Wash.	10,998	–	NN	–	NN	NN
Oreg.	5,855	–	70	1	NN	NN
Calif.	76,490	9	363	–	–	–
Alaska	1,907	1	1	–	NN	NN
Hawaii	2,604	–	3	–	NN	NN
Guam	410	2	–	–	–	–
P.R.	1,685	–	NN	–	–	–
V.I.	10	NA	NA	NA	NA	NA
American Samoa	NA	NA	NA	NA	NA	NA
C.N.M.I.	NA	NA	NA	NA	NA	NA

*Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999.

NA: Not Available
NN: Not Notifiable
–: No reported cases

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 (continued)

Area	Encephalitis St. Louis	*Escherichia coli* O157:H7 NETSS*	*Escherichia coli* O157:H7 PHLIS†	Gonorrhea§	*Haemophilus influenzae*, (invasive disease)
United States	**26**	**3,161**	**2,172**	**355,642**	**1,194**
New England	**–**	**340**	**286**	**6,061**	**108**
Maine	–	37	–	67	5
N.H.	–	48	47	91	10
Vt.	–	21	18	38	9
Mass.	–	153	164	2,258	42
R.I.	–	14	1	430	9
Conn.	NN	67	56	3,177	33
Mid. Atlantic	**1**	**312**	**87**	**38,639**	**196**
Upstate N.Y.	–	231	–	6,965	81
N.Y. City	1	14	13	12,097	50
N.J.	–	67	53	7,858	53
Pa.	–	NN	21	11,719	12
E.N. Central	**–**	**464**	**374**	**69,027**	**186**
Ohio	–	128	77	18,275	48
Ind.	–	106	54	6,307	51
Ill.	–	113	81	21,735	67
Mich.	–	117	74	16,359	13
Wis.	–	NN	88	6,351	7
W.N. Central	**–**	**499**	**408**	**17,914**	**104**
Minn.	–	209	215	2,708	77
Iowa	–	93	60	1,616	5
Mo.	–	55	64	9,463	12
N. Dak.	–	12	15	80	1
S. Dak.	–	37	40	221	1
Nebr.	–	57	–	1,204	2
Kans.	–	36	14	2,622	6
S. Atlantic	**2**	**404**	**179**	**98,054**	**224**
Del.	–	–	2	1,556	1
Md.	–	43	15	11,254	57
D.C.	–	1	NA	4,508	–
Va.	–	NN	55	9,265	19
W. Va.	–	14	10	920	7
N.C.	–	186	47	19,230	24
S.C.	–	15	12	11,575	3
Ga.	–	84	–	20,666	69
Fla.	2	61	38	19,080	44
E.S. Central	**–**	**120**	**67**	**39,079**	**64**
Ky.	–	36	–	3,813	7
Tenn.	–	54	41	11,840	38
Ala.	–	24	20	12,737	16
Miss.	–	6	6	10,689	3
W.S. Central	**23**	**137**	**108**	**54,528**	**68**
Ark.	–	12	10	3,953	–
La.	19	14	7	12,499	29
Okla.	–	26	9	5,243	36
Tex.	4	85	82	32,833	3
Mountain	**–**	**367**	**249**	**9,157**	**127**
Mont.	–	17	5	55	–
Idaho	–	43	25	182	2
Wyo.	–	53	55	36	1
Colo.	–	90	69	2,033	21
N. Mex.	–	19	20	957	8
Ariz.	–	46	29	4,213	69
Utah	–	75	22	236	7
Nev.	–	24	24	1,445	19
Pacific	**–**	**518**	**414**	**23,183**	**117**
Wash.	–	143	131	1,948	11
Oreg.	NN	107	102	880	42
Calif.	–	261	165	19,518	50
Alaska	NN	7	–	331	4
Hawaii	NN	–	16	506	10
Guam	–	NN	NA	72	–
P.R.	–	5	NA	400	2
V.I.	NA	NA	NA	39	NA
American Samoa	NA	NN	NA	NA	NA
C.N.M.I.	NA	NN	NA	NA	NA

*National Electronic Telecommunications System for Surveillance.
†Public Health Laboratory Information System. Totals reported to the National Center for Infectious Diseases as of August 26, 1999.
§Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999.

NA: Not Available
NN: Not Notifiable
–: No reported cases

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 (continued)

Area	Hansen disease (leprosy)	Hepatitis			Legionel-losis	Lyme disease
		A	B	C/non-A, non-B		
United States	**108**	**23,229**	**10,258**	**3,518**	**1,355**	**16,801**
New England	**1**	**299**	**230**	**61**	**98**	**5,056**
Maine	NN	20	5	–	1	78
N.H.	–	19	21	–	7	45
Vt.	NN	17	10	6	7	11
Mass.	–	126	81	51	34	699
R.I.	1	18	75	4	26	789
Conn.	–	99	38	–	23	3,434
Mid. Atlantic	**7**	**1,726**	**1,249**	**246**	**332**	**9,311**
Upstate N.Y.	3	376	262	124	113	4,409
N.Y. City	4	591	423	–	37	231
N.J.	–	343	205	NA	18	1,911
Pa.	NN	416	359	122	164	2,760
E.N. Central	**–**	**3,715**	**1,414**	**673**	**420**	**774**
Ohio	–	398	77	8	133	47
Ind.	–	174	117	6	83	39
Ill.	–	821	230	41	54	14
Mich.	–	2,135	476	470	82	17
Wis.	NN	187	514	148	68	657
W.N. Central	**4**	**1,362**	**438**	**52**	**80**	**317**
Minn.	–	145	71	20	12	261
Iowa	1	400	55	8	11	27
Mo.	–	637	252	15	18	12
N. Dak.	NN	4	4	–	–	–
S. Dak.	1	40	4	–	7	–
Nebr.	2	27	24	5	21	4
Kans.	–	109	28	4	11	13
S. Atlantic	**6**	**2,395**	**1,323**	**197**	**170**	**977**
Del.	–	6	4	–	13	77
Md.	–	416	143	23	38	659
D.C.	–	66	19	–	9	8
Va.	–	226	109	13	27	73
W. Va.	NN	9	14	9	NN	13
N.C.	2	128	243	26	14	63
S.C.	–	54	65	20	12	8
Ga.	NN	879	209	9	8	5
Fla.	4	611	517	97	49	71
E.S. Central	**1**	**416**	**512**	**284**	**66**	**115**
Ky.	–	32	49	23	27	27
Tenn.	1	234	294	173	23	47
Ala.	–	81	75	5	9	24
Miss.	–	69	94	83	7	17
W.S. Central	**28**	**4,461**	**2,466**	**655**	**42**	**68**
Ark.	–	82	115	30	2	8
La.	–	174	219	137	6	15
Okla.	NN	667	172	25	17	13
Tex.	28	3,538	1,960	463	17	32
Mountain	**–**	**3,134**	**813**	**387**	**78**	**19**
Mont.	–	96	8	8	2	–
Idaho	–	235	49	87	3	7
Wyo.	–	37	11	102	1	1
Colo.	–	345	102	32	20	–
N. Mex.	–	155	311	97	2	4
Ariz.	–	1,843	185	19	21	1
Utah	–	196	66	22	21	–
Nev.	–	227	81	20	8	6
Pacific	**61**	**5,721**	**1,813**	**963**	**69**	**164**
Wash.	–	1,037	136	29	15	7
Oreg.	4	435	201	21	NN	21
Calif.	38	4,178	1,445	859	52	135
Alaska	–	17	13	–	1	1
Hawaii	19	54	18	54	1	NN
Guam	3	1	2	1	2	1
P.R.	–	94	276	–	–	NN
V.I.	NA	NA	NA	–	NA	NA
American Samoa	NA	NA	NA	NA	NA	NA
C.N.M.I.	NA	NA	NA	–	NA	NA

NA: Not Available
NN: Not Notifiable
–: No reported cases

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 (continued)

Area	Malaria	Measles		Meningo-coccal disease	Mumps	Pertussis
		Indigenous	Imported*			
United States	**1,611**	**74**	**26**	**2,725**	**666**	**7,405**
New England	**98**	**1**	**2**	**123**	**10**	**1,114**
Maine	5	–	–	8	–	5
N.H.	6	–	–	13	–	149
Vt.	2	–	1	5	–	80
Mass.	27	1	1	59	6	805
R.I.	15	–	–	8	1	21
Conn.	43	–	–	30	3	54
Mid. Atlantic	**426**	**11**	**5**	**295**	**207**	**695**
Upstate N.Y.	93	3	1	84	14	352
N.Y. City	240	–	–	35	167	54
N.J.	58	7	1	60	6	29
Pa.	35	1	3	116	20	260
E.N. Central	**147**	**12**	**4**	**399**	**82**	**919**
Ohio	15	–	1	143	29	299
Ind.	11	2	1	74	7	185
Ill.	59	1	–	104	10	173
Mich.	50	9	1	44	33	71
Wis.	12	–	1	34	3	191
W.N. Central	**110**	**–**	**–**	**231**	**34**	**756**
Minn.	71	–	–	37	13	439
Iowa	8	–	–	46	11	78
Mo.	15	–	–	80	4	59
N. Dak.	3	–	–	5	2	46
S. Dak.	1	–	–	9	–	8
Nebr.	2	–	–	17	–	21
Kans.	10	–	–	37	4	105
S. Atlantic	**349**	**4**	**5**	**482**	**57**	**380**
Del.	3	–	1	2	–	5
Md.	89	–	1	35	–	66
D.C.	19	–	–	4	–	1
Va.	61	–	2	49	13	56
W. Va.	2	–	–	19	–	7
N.C.	30	1	–	59	12	112
S.C.	6	–	–	57	8	29
Ga.	43	1	1	102	2	38
Fla.	96	2	–	155	22	66
E.S. Central	**35**	**–**	**2**	**205**	**19**	**168**
Ky.	7	–	–	38	1	95
Tenn.	17	–	1	75	2	40
Ala.	6	–	1	55	9	27
Miss.	5	–	–	37	7	6
W.S. Central	**101**	**–**	**–**	**338**	**67**	**427**
Ark.	2	–	–	31	13	93
La.	17	–	–	69	8	13
Okla.	4	–	–	44	4	33
Tex.	78	–	–	194	42	288
Mountain	**68**	**9**	**2**	**157**	**40**	**1,324**
Mont.	1	–	–	5	–	17
Idaho	8	–	–	14	7	263
Wyo.	–	–	–	8	1	8
Colo.	18	–	–	31	7	357
N. Mex.	12	–	–	26	NN	100
Ariz.	15	9	2	48	6	241
Utah	2	–	–	15	5	297
Nev.	12	–	–	10	14	41
Pacific	**277**	**37**	**6**	**495**	**150**	**1,622**
Wash.	30	–	1	77	11	407
Oreg.	17	–	–	91	NN	89
Calif.	217	5	4	319	110	1,085
Alaska	4	32	1	3	3	15
Hawaii	9	–	–	5	26	26
Guam	2	–	–	2	5	1
P.R.	1	–	–	11	7	10
V.I.	NA	NA	NA	NA	NA	NA
American Samoa	NA	NA	NA	NA	NA	NA
C.N.M.I.	NA	NA	NA	NA	NA	NA

*Imported cases include only those resulting from importation from other countries.

NA: Not Available
NN: Not Notifiable
–: No reported cases

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 (continued)

Area	Plague	Poliomyelitis, paralytic	Psittacosis	Rabies		RMSF*
				Animal	Human	
United States	**9**	**1**	**47**	**7,243**	**1**	**365**
New England	**–**	**–**	**1**	**1,452**	**–**	**2**
Maine	–	–	–	241	–	–
N.H.	–	–	1	83	–	–
Vt.	–	–	–	72	–	–
Mass.	–	–	–	498	–	–
R.I.	–	–	–	103	–	–
Conn.	–	–	NN	455	–	2
Mid. Atlantic	**–**	**–**	**18**	**1,609**	**–**	**38**
Upstate N.Y.	–	–	5	1,095	–	11
N.Y. City	–	–	–	NA	–	2
N.J.	–	–	–	224	–	12
Pa.	–	–	13	290	–	13
E.N. Central	**–**	**1**	**6**	**111**	**–**	**22**
Ohio	–	–	–	59	–	12
Ind.	–	1	2	12	–	6
Ill.	–	–	1	NN	–	1
Mich.	–	–	3	37	–	3
Wis.	NN	NN	–	3	–	–
W.N. Central	**–**	**–**	**2**	**741**	**–**	**16**
Minn.	–	–	2	119	–	1
Iowa	–	–	–	153	–	2
Mo.	–	–	–	42	–	5
N. Dak.	–	–	–	155	–	2
S. Dak.	–	–	–	166	–	–
Nebr.	–	–	–	7	–	3
Kans.	–	–	–	99	–	3
S. Atlantic	**–**	**–**	**4**	**2,350**	**1**	**148**
Del.	–	–	–	49	–	–
Md.	–	–	–	439	–	18
D.C.	–	–	–	10	–	–
Va.	–	–	1	549	1	14
W. Va.	–	–	–	77	–	4
N.C.	–	–	–	555	–	71
S.C.	–	–	–	147	–	34
Ga.	–	–	–	309	–	4
Fla.	–	–	3	215	–	3
E.S. Central	**–**	**–**	**–**	**278**	**–**	**58**
Ky.	–	–	–	32	NN	6
Tenn.	–	–	–	142	–	27
Ala.	NN	–	–	102	–	11
Miss.	–	–	–	2	–	14
W.S. Central	**–**	**–**	**–**	**35**	**–**	**72**
Ark.	–	–	–	35	–	23
La.	–	–	–	–	–	5
Okla.	–	–	NN	NN	–	41
Tex.	–	–	NN	–	–	3
Mountain	**8**	**–**	**7**	**251**	**–**	**8**
Mont.	–	–	–	56	–	1
Idaho	–	–	4	NN	–	1
Wyo.	–	–	1	66	–	–
Colo.	1	–	2	42	–	2
N. Mex.	6	–	–	6	–	2
Ariz.	1	–	–	48	–	–
Utah	–	–	–	27	–	1
Nev.	–	–	–	6	–	1
Pacific	**1**	**–**	**9**	**416**	**–**	**1**
Wash.	–	–	3	–	–	–
Oreg.	–	–	–	7	–	–
Calif.	1	–	6	384	–	1
Alaska	–	–	–	25	–	NN
Hawaii	–	–	–	–	–	NN
Guam	–	–	–	–	–	–
P.R.	–	–	–	52	–	NN
V.I.	NA	NA	NA	NA	NA	NA
American Samoa	NA	NA	NA	NA	NA	NA
C.N.M.I.	NA	NA	NA	NA	NA	NA

*Rocky Mountain spotted fever.

NA: Not Available
NN: Not Notifiable
–: No reported cases

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 (continued)

Area	Rubella		Salmonel-losis	Shigellosis	Syphilis*	
	Congenital syndrome	Rubella			Congenital (<1 year)	Primary & secondary
United States	**7**	**364**	**43,694**	**23,626**	**801**	**6,993**
New England	**–**	**38**	**2,508**	**413**	**2**	**80**
Maine	–	–	165	14	–	1
N.H.	–	–	187	18	–	2
Vt.	NN	–	144	7	–	4
Mass.	–	8	1,312	266	2	46
R.I.	–	1	159	37	–	1
Conn.	–	29	541	71	–	26
Mid. Atlantic	**3**	**150**	**6,767**	**2,412**	**163**	**324**
Upstate N.Y.	–	114	1,680	678	13	38
N. Y. City	3	20	1,895	710	43	81
N.J.	–	14	1,476	662	86	107
Pa.	–	2	1,716	362	21	98
E.N. Central	**–**	**2**	**6,279**	**3,037**	**97**	**1,044**
Ohio	–	–	1,491	566	4	134
Ind.	–	–	685	180	–	215
Ill.	–	1	1,921	1,573	71	424
Mich.	–	1	1,169	279	16	211
Wis.	NN	–	1,013	439	6	60
W.N. Central	**–**	**41**	**2,361**	**1,119**	**15**	**146**
Minn.	–	–	601	331	–	9
Iowa	–	–	375	69	–	5
Mo.	–	2	632	221	15	109
N. Dak.	–	–	68	11	–	–
S. Dak.	–	–	132	33	–	1
Nebr.	–	–	190	372	–	8
Kans.	–	39	363	82	–	14
S. Atlantic	**1**	**22**	**9,326**	**4,727**	**184**	**2,523**
Del.	–	–	79	46	–	21
Md.	–	1	931	202	44	648
D.C.	–	–	84	37	8	81
Va.	–	1	1,135	200	4	149
W. Va.	–	–	181	11	–	3
N.C.	–	16	1,309	372	24	723
S.C.	1	–	667	198	19	271
Ga.	–	–	1,839	1,138	14	333
Fla.	–	4	3,101	2,523	71	294
E.S. Central	**–**	**2**	**2,363**	**1,734**	**38**	**1,208**
Ky.	–	–	364	158	5	106
Tenn.	–	2	624	1,062	9	567
Ala.	–	–	695	459	9	274
Miss.	–	NN	680	55	15	261
W.S. Central	**3**	**90**	**5,381**	**5,295**	**155**	**1,079**
Ark.	–	–	616	211	30	108
La.	–	1	863	384	8	430
Okla.	–	–	501	712	15	98
Tex.	3	89	3,401	3,988	102	443
Mountain	**–**	**6**	**2,601**	**1,323**	**27**	**231**
Mont.	–	–	79	8	–	–
Idaho	–	–	122	20	–	2
Wyo.	–	–	70	4	–	1
Colo.	–	–	539	229	1	10
N. Mex.	–	1	306	306	–	14
Ariz.	–	2	885	643	25	185
Utah	–	2	355	48	1	4
Nev.	–	1	245	65	–	15
Pacific	**–**	**13**	**6,108**	**3,566**	**120**	**358**
Wash.	–	8	703	277	1	44
Oreg.	–	–	329	194	–	6
Calif.	–	3	4,724	3,033	119	303
Alaska	NN	–	57	11	–	1
Hawaii	–	2	295	51	–	4
Guam	–	–	46	39	–	–
P.R.	–	14	901	69	27	177
V.I.	NA	NA	NA	NA	–	7
American Samoa	NA	NA	NA	NA	NA	NA
C.N.M.I.	NA	NA	NA	NA	NA	NA

*Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999.

NA: Not Available
NN: Not Notifiable
–: No reported cases

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 (continued)

Area	Syphilis* All stages	Tetanus	Toxic-shock syndrome	Trichinosis	Tuberculosis†	Typhoid fever
United States	**37,977**	**41**	**138**	**19**	**18,361**	**375**
New England	**824**	**–**	**2**	**1**	**505**	**24**
Maine	4	–	–	–	13	–
N.H.	14	–	–	–	14	1
Vt.	6	–	2	1	5	–
Mass.	568	–	–	–	282	15
R.I.	55	–	–	–	63	–
Conn.	177	–	NN	–	128	8
Mid. Atlantic	**6,881**	**1**	**17**	**–**	**3,088**	**90**
Upstate N.Y.	495	–	10	–	442	17
N.Y. City	4,650	–	–	–	1,558	52
N.J.	826	–	–	–	640	16
Pa.	910	1	7	–	448	5
E.N. Central	**3,905**	**12**	**30**	**9**	**1,762**	**56**
Ohio	474	3	1	7	230	9
Ind.	509	1	6	–	188	2
Ill.	2,028	5	7	2	850	38
Mich.	686	2	14	–	385	6
Wis.	208	1	2	–	109	1
W.N. Central	**645**	**2**	**23**	**–**	**520**	**7**
Minn.	74	–	5	–	161	3
Iowa	48	1	4	–	55	–
Mo.	375	–	6	–	184	4
N. Dak.	–	–	1	–	10	–
S. Dak.	2	1	–	–	23	–
Nebr.	33	–	3	–	31	–
Kans.	113	–	4	–	56	–
S. Atlantic	**10,946**	**9**	**16**	**–**	**3,565**	**49**
Del.	114	–	4	–	36	3
Md.	2,156	1	NN	–	324	11
D.C.	579	–	–	–	107	–
Va.	707	1	–	–	339	7
W. Va.	11	3	–	–	42	1
N.C.	2,133	1	2	–	498	1
S.C.	871	–	4	–	286	–
Ga.	1,836	–	3	–	631	10
Fla.	2,539	3	3	–	1,302	16
E.S. Central	**4,383**	**1**	**7**	**4**	**1,224**	**10**
Ky.	339	–	1	NN	179	2
Tenn.	1,750	1	5	3	439	2
Ala.	1,133	–	1	–	381	4
Miss.	1,161	–	NN	1	225	2
W.S. Central	**6,475**	**6**	**6**	**–**	**2,569**	**31**
Ark.	506	–	2	NN	171	–
La.	1,651	2	NN	–	380	1
Okla.	363	–	4	NN	198	1
Tex.	3,955	4	NN	–	1,820	29
Mountain	**1,099**	**2**	**10**	**2**	**619**	**12**
Mont.	–	1	–	2	20	–
Idaho	15	–	1	NN	14	1
Wyo.	2	–	–	–	4	–
Colo.	118	–	4	–	79	1
N. Mex.	76	–	–	–	68	2
Ariz.	697	1	1	–	254	5
Utah	55	–	2	–	52	–
Nev.	136	–	2	–	128	3
Pacific	**2,819**	**8**	**27**	**3**	**4,509**	**96**
Wash.	141	–	6	–	265	8
Oreg.	32	–	NN	–	156	1
Calif.	2,618	8	21	3	3,852	83
Alaska	13	–	NN	–	55	–
Hawaii	15	–	NN	–	181	4
Guam	3	–	–	–	89	–
P.R.	1,460	1	NN	–	201	2
V.I.	35	NA	NA	NA	NA	NA
American Samoa	NA	NA	NA	NA	NA	NA
C.N.M.I.	NA	NA	NA	NA	NA	NA

*Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999.
†Totals reported to the Division of Tuberculosis Elimination, NCHSTP, as of June 3, 1999.

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–: No reported cases

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