Methicillin-Resistant Staphylococcus aureus — *Continued*

sports (*6*). Reported most commonly have been uncomplicated skin infections; however, community-acquired MRSA infections can be severe. Four deaths from community-acquired MRSA in children were reported in Minnesota and North Dakota in 1999 (*7*).

Disease transmission can occur easily among inmates at correctional facilities. In 1999, approximately two million persons were incarcerated in the United States (*8*). Skin or soft tissue infections are recognized problems in these facilities (*9*). MRSA disease in prisons can be controlled or prevented using several approaches. First, severe skin disease or treatment failures of presumed *S. aureus* skin infection should be evaluated with appropriate cultures or other diagnostic tests. Efforts to monitor the etiology of skin disease should be linked to these data to determine whether MRSA is a problem in the facility. MRSA outbreaks can be reported to CDC (telephone [800] 893-0485) through state departments of corrections and state health departments. Second, optimal treatment of MRSA disease should be based on the infecting organism's antimicrobial susceptibility result and, when available, input by infectious disease expertise. Third, close contact among inmates may place them at increased risk for transmission of skin-colonizing or skin-infecting organisms. To prevent skin disease, all inmates should practice good personal hygiene, including daily showers. Inmates should avoid touching wounds or drainage of others and should have access to sinks and plain soap (in this setting, the usefulness of antibacterial soap is unknown). Hands should be washed with soap as soon as possible after touching wounds or dressings. Personnel that provide wound care should follow Standard Precautions (*1*).

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Shigella sonnei Outbreak Among Men Who Have Sex with Men — San Francisco, California, 2000–2001

Shigella sonnei causes approximately 10,000 cases of gastroenteritis each year in the United States (*1*). These infections occur predominately among young children and usually are associated with poor hygienic conditions in child-care settings. Outbreaks of
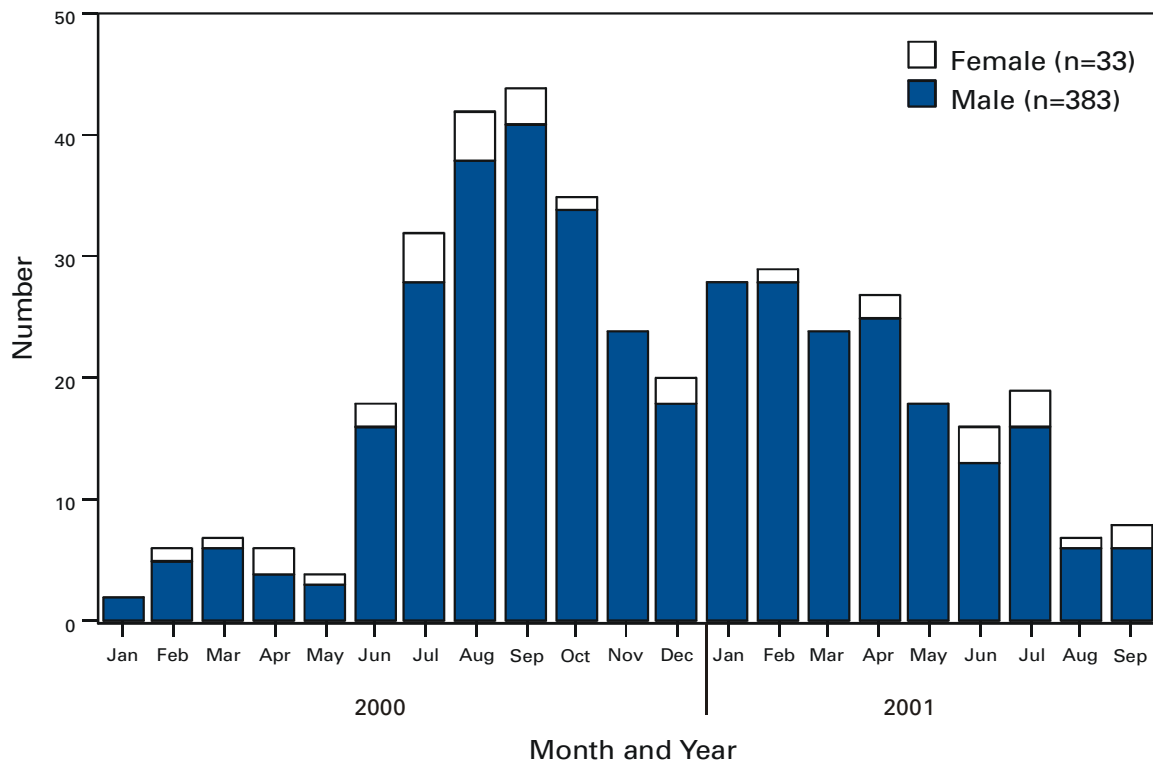
Shigella sonnei *Outbreak — Continued*

shigellosis among men who have sex with men (MSM) have occurred because of direct or indirect oral-anal contact (*2,3*) but usually are caused by *Shigella flexneri* (*4*). This report describes an investigation of *S. sonnei* cases that occurred among MSM in San Francisco during May–December 2000. Following efforts to heighten awareness, the number of cases has declined, but new cases continue to occur at low levels in this risk group (Figure 1). The increased incidence of sexually transmitted *Shigella* and other sexually transmitted diseases (STDs) in MSM require renewed and innovative prevention efforts.

During June–December 2000, 230 cases of culture-confirmed* *S. sonnei* infection were reported to the San Francisco Department of Public Health; an average of 21 cases (range: 13–29 cases) occurred during the same period from 1996 to 1999. Based on data obtained from 230 reported cases, the median age was 39 years (range: 16–77 years) and 211 (92%) patients were males. Of 199 males for whom information was available, 141 (71%) were non-Hispanic whites, 159 (80%) were residents of predominantly gay neighborhoods, and 121 (61%) were self-reported MSM. Sexual behavior was unknown for 62 (31%) patients, and 16 (8%) were self-reported heterosexuals. On the basis of denominator data obtained from the annual San Francisco HIV/AIDS epidemiology report, the rate of *S. sonnei* infection among MSM was 259 per 100,000 population. The rate among all other groups, including women and heterosexual men, was 16 (*5*).

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*Defined as culture-confirmed *S. sonnei* infection in residents of San Francisco County aged ≥15 years.

FIGURE 1. Number of adult *Shigella sonnei* infections, by month, year, and sex — San Francisco, California, January 2000–September 2001

Shigella sonnei *Outbreak — Continued*

Among persons aged $\geq$18 years with *S. sonnei* and symptom onset during May–December 2000, 106 were selected randomly for telephone interview; 35 (33%) could not be contacted and four (4%) refused to participate. Of the 67 (63%) who agreed to participate, 64 (96%) were male. Among the 64 male respondents, 62 (97%) were MSM, 42 (66%) were college graduates, and 29 (46%) had an annual income >$45,000. Of the respondents, 49 (78%) had health insurance coverage, 45 (70%) thought they became ill from a sexual partner, and 35 (55%) reported concurrent infection with human immuno-deficiency virus (HIV).

The median duration of symptoms for male respondents was 7 days (range: 2–90 days); 62 (97%) reported diarrhea, 50 (78%) abdominal cramps, 49 (77%) fever, 47 (73%) weight loss, and 20 (31%) blood in stool.

In the week before illness, 50 (78%) of the 64 males reported being sexually active, including 34 (53%) who had multiple sex partners; 32 (50%) answered "yes" to, "The week before your illness did you put your tongue in a partner's anus?" Forty-seven (73%) answered "yes" to, "The week before your illness did you have a penis in your mouth?"

Of the 14 patients who reported sexual activity during the week of or the week follow-ing illness, three (21%) answered "yes" to, "During [or after] your illness did you have a tongue in your anus?" All 14 persons who were sexually active during and after illness reported diarrhea (duration: 3–23 days) for which they were prescribed antibiotics.

Local response to the outbreak included a press release, development of an Internet web site, and a media campaign with newspaper and Internet articles for the gay com-munity. Approximately 2,000 notices were mailed to community agencies and providers, 10 presentations were conducted for community agencies, and 4,000 health alerts were distributed through a mass mailing to 40 acquired immunodeficiency syndrome-related agencies and their clients, several large gay and lesbian fairs, bars, sex clubs, and the city STD clinic.

Free *Shigella* screening was offered for 1 month at the city STD clinic. Of 119 patients screened, five reported having diarrhea at presentation to the STD clinic. Two of the five had *S. sonnei* isolated from their rectal swab samples; no *Shigella* species were isolated from the 114 remaining clients.

A convenience sample of *S. sonnei* from outbreak-related patients and controls (women and children with *S. sonnei* infection in the outbreak period and region) was subtyped by pulsed-field gel electrophoresis (PFGE). Of 26 outbreak-related isolates, 23 (88%) shared one of two closely related patterns, and only one (12%) of eight isolates from controls had a similar PFGE patterns.

Of 20 randomly selected isolates from outbreak-related patients, 19 were resistant to trimethoprim-sulfamethoxazole, tetracycline, ampicillin, sulfisoxazole, and streptomy-cin. All isolates were susceptible to ciprofloxacin, nalidixic acid, and ceftriaxone.

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Editorial Note: This report indicates that *S. sonnei* can cause large community outbreaks through sexual transmission among MSM. The strains circulating among MSM were different from those circulating in the rest of the community, indicating unique

Shigella sonnei *Outbreak — Continued*

transmission. The recent increases in STDs and enteric infections in MSM follow a 10-year decline (*4*). The rate of *S. sonnei* remained low in MSM until the summer of 2000 in San Francisco. These trends paralleled changes in sexual behavior that increased the risk for HIV and other STDs (*6*).

Approximately half of the patients in this report were infected with HIV compared with an estimated prevalence of 20% among MSM in San Francisco (*7*), suggesting that MSM with HIV infection are more likely to participate in sexual behaviors that place them at risk for shigellosis. Standard HIV management includes stool bacteria cultures of persons with diarrhea. However, HIV-infected persons with shigellosis might have more severe illness (*8*) leading to more frequent diagnosis and reporting.

The findings in this report are subject to at least two limitations. First, approximately a third of the selected cases could not be contacted, and those who were might have had difficulty accurately recalling events that occurred up to 6 months preceding the interview. Second, the magnitude of this outbreak probably was underestimated because reporting shigellosis in California is required of physicians but not of laboratories, and many cases probably were undiagnosed and unreported.

Because most patients in this outbreak were sexually active with multiple partners, the potential for ongoing transmission is high. In San Francisco and other communities with high rates of shigellosis in adult men, clinicians should obtain stool cultures and sexual orientation data from men with diarrhea and report suspected cases of shigellosis to the health department. Appropriate antimicrobial therapy will decrease the duration, transmission, and severity of symptoms and should be prescribed based on the severity of illness or the need to protect close contacts. Patients in certain occupations (i.e., foodhandlers, child-care providers, and health-care workers) and children who attend child care often are required to have a negative stool culture documented following treatment. The incubation period of shigellosis is 1–4 days, and *shigellae* are shed in stool from several days to several weeks after illness. Persons who receive appropriate antimicrobial therapy will be culture negative at 72 hours (*9*).

Patients with shigellosis should be counseled to abstain from sexual behavior that is likely to transmit infection for at least 3 days after starting an appropriate course of antimicrobial therapy (*9*). Because antimicrobial resistance is common, in cases in which antimicrobial susceptibility data are not available, patients should be counseled on abstaining from high-risk sexual behavior until at least one negative posttreatment stool culture is obtained. Patients also should be counseled on methods to avoid or reduce the risk for sexual transmission of enteric infections such as *Shigella* and hepatitis A, should be educated to avoid sexual practices that might result in fecal-oral transmission, and should be advised to wash with soap and water the perianal/perineal area, other body parts, and sex toys before and after sexual activity.

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Weekly Update: West Nile Virus Activity — United States, October 17–23, 2001

The following report summarizes West Nile virus (WNV) surveillance data reported to CDC through ArboNET and verified by states and other jurisdictions as of October 23, 2001.

During the week of October 17–23, six human cases of WNV encephalitis or meningitis were reported in Pennsylvania (three), New Jersey (two), and Florida (one). During the same period, WNV infections were reported in 101 crows, 45 other birds, and 26 horses. A total of 31 WNV-positive mosquito pools were reported in five states (Connecticut, Florida, Georgia, New York, and Ohio).

During 2001, 37 human cases of WNV encephalitis or meningitis have been reported in Florida (10), Maryland (six), New York (six), New Jersey (six), Connecticut (five), Pennsylvania (three), and Georgia (one); one death occurred in Georgia. Among these 37 cases, 20 (54%) were in males, the median age was 69 years (range: 36–81 years), and dates of illness onset ranged from July 13 to October 7. A total of 3,796 crows and 1,394 other birds with WNV infection were reported from 25 states and the District of Columbia (Figure 1); 151 WNV infections in other animals (all horses) were reported from 11 states (Alabama, Connecticut, Florida, Georgia, Kentucky, Louisiana, Massachusetts, Mississippi, New York, Pennsylvania, and Virginia); and 725 WNV-positive mosquito pools were reported from 14 states (Connecticut, Florida, Georgia, Illinois, Kentucky, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, and Rhode Island).

Additional information about WNV activity is available at <http://www.cdc.gov/ncidod/dvbid/westnile/index.htm> and <http://cindi.usgs.gov/hazard/event/west_nile/west_nile.html>.