

Relationship of Syphilis to Drug Use and Prostitution— Connecticut and Philadelphia, Pennsylvania

SINCE 1984, in many areas of the United States, reported rates of syphilis have greatly increased.¹ Between 1984 and 1987, annual rates of syphilis (primary and secondary) increased 70% in the state of Connecticut and 74% in the city of Philadelphia (Figure 1). These trends have continued in 1988; in the first quarter of this year, annualized rates increased by 70% in Connecticut and by 25% in Philadelphia compared with 1987 annual rates. Investigations were conducted at these two sites to identify factors associated with this increase.

In Philadelphia and Connecticut, over 80% of all newly diagnosed patients with early syphilis are interviewed and counseled. Cases are detected through reporting by public clinics and private health-care providers and through laboratory screening. During the interviews, information is collected about patients' lifestyles to help locate sexual contacts. In Philadelphia and Connecticut, records from these interviews were abstracted and analyzed for the years 1985-1987. In Connecticut, all interviews of persons with primary and secondary syphilis were abstracted; in Philadelphia, a sample of interviews* was chosen that involved persons with primary, secondary, and latent syphilis present less than 1 year.

At both sites during the 3-year period, the proportion of men with syphilis who reported sexual contact with men decreased substantially. In Connecticut, the proportion of men with syphilis who reported being homosexual or bisexual decreased from 38% (48/126) in 1985 to 11% (21/197) in 1987; in Philadelphia, the percentage declined from 53% (49/93) to 18% (25/137) during this 3-year period.

In contrast, recorded use of illicit drugs and reported prostitution or contact with a prostitute among heterosexual syphilis patients increased greatly during this period. Among females at both study sites, the proportion reporting to be prostitutes increased more than threefold and the proportion reporting use of drugs increased more than sixfold (Figure 2). Heterosexual male syphilis patients showed similar but smaller increases in recorded drug use. Prostitute contact by this group occurred more frequently in Connecticut than in Philadelphia but increased at both sites.

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CDC Editorial Note: Although prostitution has long been associated with syphilis (and other sexually transmitted diseases),² it appears to have been relatively unimportant in the overall epidemiology of syphilis in the United States during the last 2 decades.^{3,4} Drug use has only recently been associated with the spread of syphilis.¹ Since drug use and prostitute contact were not recorded systematically on case interview forms, the true frequency of these behaviors among syphilis patients is probably underestimated. This underreporting of these behaviors, if combined with changing interviewers' perceptions, could bias the findings in Connecticut and Phila-

delphia. However, the consistency between the two sites and the magnitude of the increase in reporting of prostitution and drug use suggest that the trends observed in Connecticut and Philadelphia reflect real changes in the epidemiology of syphilis.

The decrease in the proportion of male syphilis patients who are homosexual/bisexual has been noted in California and New York City,⁵ in outbreaks in Manitoba⁶ and Florida,⁷ and in a sample of states with recent increases in syphilis.⁸ In the Florida outbreak, prostitutes were also found to be an important risk group. The results of the studies in Connecticut and Philadelphia support these other findings and suggest that the emergence of syphilis among prostitutes, drug users, and their sexual contacts may be a widespread national phenomenon.

The possibility of an increase in syphilis among persons in these risk groups has important implications for the control of syphilis and other sexually transmitted diseases, including human immunodeficiency virus (HIV) infections. Prostitutes tend to have large numbers of anonymous sexual partners who are difficult to locate by traditional methods of partner notification. Prostitutes who also frequently use intravenous (IV) drugs and, in some parts of the country, those with a history of IV-drug use have high rates in infection with HIV.⁹ Recent studies have suggested that sexually transmitted diseases that cause genital ulcers, such as syphilis, greatly increase the likelihood that HIV infection, when present, will be transmitted.¹⁰⁻¹² To limit the spread of syphilis, which may also help limit the spread of HIV, public health officials

may need to modify current control methods to better identify and treat syphilis-infected prostitutes, drug users, and their sexual contacts.¹

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*Abstracted interviews consisted of all those conducted in the first 3 months of 1985 and 1986 and a systematically selected sample of two-thirds of interviews conducted in the first 3 months of 1987.

Multistate Outbreak of Sporotrichosis in Seedling Handlers, 1988

BETWEEN APRIL 23 and June 30, 1988, 84 cases of cutaneous sporotrichosis occurred in persons who handled conifer seedlings packed in Pennsylvania with sphagnum moss that had been harvested in Wisconsin. An outbreak-related case was defined as physician-diagnosed sporotrichosis in a person who had handled seedlings and/or moss. Confirmed cases occurred in 14 states: New York, 29 cases; Illinois, 23; Pennsylvania, 12; Ohio, five; Wisconsin, three; Connecticut, North Carolina, and Vermont, two each; and Indiana, Iowa, Massachusetts, Michigan, New Hampshire, and Virginia, one each. Each of these persons handled seedlings from April 4 to May 16; symptoms developed between April 23 and June 30.

Thirty-one (37%) cases occurred in state forestry workers and garden club members who participated in annual tree distributions in which seedlings were separated from one another, repacked in moss, and distributed to area residents. In addition, 12 patients had received seedlings through these distributions, 38 had purchased seedlings directly from nurseries, and three were nursery workers. All patients had contact with seedlings distributed by two Pennsylvania nurseries. *Sporothrix schenckii*

was cultured from skin lesions of 38 persons and from five samples of unopened bales of moss obtained from one nursery.

Sphagnum moss harvested in Wisconsin is shipped to nurseries in more than 15 states, and the involved Pennsylvania nurseries ship seedlings and moss to 47 states. Further epidemiologic and laboratory investigators are under way.

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CDC Editorial Note: *Sporothrix schenckii* is a dimorphic fungus found in moss, hay, soil, and decaying vegetation. Previous outbreaks associated with Wisconsin sphagnum moss have

occurred.^{1,3} The largest reported U.S. outbreak involved 17 forestry workers in 1976.²

Sporotrichosis most commonly presents as papules or skin ulcers on the upper extremities with lymphangitic spread and painful lymphadenopathy. It is frequently misdiagnosed, resulting in delay of appropriate oral potassium iodide therapy. Incision and drainage are contraindicated as they may worsen skin lesions. Amphotericin B is reserved for disseminated disease, which occurs rarely.

Clinicians should consider sporotrichosis in patients with chronic cutaneous lesions and appropriate exposure histories. Protective clothing (e.g., gloves and long-sleeved shirts) should be worn when potentially infected materials such as sphagnum moss or seedlings are handled.

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