

## *Are Emergency Departments the Next Frontier for Sexually Transmitted Disease Screening?*

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THE PAST DECADE has witnessed a revolution in strategies for sexually transmitted disease (STD) control. When outbreaks of syphilis in hard-to-reach populations such as drug users and sex workers revealed the limitations of traditional approaches to case finding, public health was compelled to move beyond STD and family planning clinics, and into the community. A new tenet guiding STD control is to go to the very places where persons at high risk for STD congregate, and to facilities such as prisons and jails that house persons at high risk for STD, even though their primary purpose is entirely nonclinical. The development of noninvasive urine tests for *Chlamydia trachomatis*, and *Neisseria gonorrhoeae*, and the availability of single dose, oral antimicrobial therapy for both of these infections has made screening and treatment in these non-clinical venues feasible. STD prevention programs have routinized screening for chlamydial infection and gonorrhea in many jails and prisons, and some have begun to screen for chlamydial infection in schools and community settings.<sup>1,2</sup> A substantial amount of experience and data have accumulated to support such screening, although few studies have examined the cost-effectiveness of these approaches.

Somewhat surprisingly, the move from traditional, clinical venues to nontraditional, nonclinical venues has largely skipped over emergency departments (EDs). Why is this? Data are now accumulating to suggest that EDs may represent high-yield screening venues, although implementation of ED screening raises unique operational and feasibility

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issues. The article by Mehta et al in this issue of *Sexually Transmitted Diseases* contributes more data to the body of evidence indicating that ED screening may identify a substantial number of persons with STD.

In their article entitled “Unsuspected gonorrhea and chlamydia in patients of an urban adult emergency department: A critical population for STD control intervention,” Mehta and colleagues describe chlamydia and gonorrhea testing in an ED population that has a high STD prevalence and risk behaviors associated with the acquisition of STD and HIV.<sup>3</sup> Testing for STD in this population was appealing for several reasons. The ED may serve as a point of contact for persons who are uninsured, with little or no access to a regular source of health care, and who are at high risk for STD. In an earlier study in the same ED, 65% of men and 34% of women queried reported that they had no regular source of health care, and approximately half of those men and women had an STD in the past year.<sup>4</sup> In a study of persons living in an urban area with high STD incidence, Farley and colleagues found that while few had access to regular sources of health care almost 60% had visited a public or private ED in the past 12 months<sup>5</sup>; 70% of participants in this study had multiple partners and 30% had unprotected casual sex.<sup>5</sup> The Mehta study and others have demonstrated the high prevalence of both STD and HIV infection in urban EDs.<sup>3,6–9</sup> The prevalence of infection in recent studies has ranged from 8% to 11% for *Chlamydia trachomatis*,<sup>6–8,10</sup> 2% to 9% for gonorrhea,<sup>6,7</sup> 2% to 8% for syphilis,<sup>9,11,12</sup> and 4% to 6% for HIV.<sup>9,13</sup>

Although ED screening for STD is likely to be high yield, it is unclear whether routine STD testing by ED staff is

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operationally feasible. By necessity, ED staff take a problem-oriented approach to care, focus their evaluations around the patient's chief complaint, and may not have the time or flexibility to address issues other than the chief complaint. Mehta et al and others have concluded that testing for chlamydial infection and gonorrhea in the ED can be easily integrated into ED service delivery, however, their conclusions are drawn from studies that have relied on dedicated research staff for interviewing, specimen collection, and follow-up of positive test results.<sup>3,6,7</sup> Reimbursement for screening may present another obstacle to implementation as third party payers may be reluctant to reimburse for STD screening of patients seeking care for unrelated complaints. One solution would be for public health agencies to subsidize STD screening in this high prevalence population, as they sometimes do in other non-traditional settings such as jails.

Screening for STD in the ED should not be undertaken unless reasonable rates of treatment for infected patients can be assured. Several recent studies report that only a minority of patients tested and determined to be infected were treated for their infection while still in the ED.<sup>8,10,14,15</sup> The cost to locate and treat each person who was not treated at the ED visit can be substantial, reaching \$981 per person in one study.<sup>8</sup> Treatment rates could be enhanced by devising algorithms using self-report of STD history, STD risk factors, and symptoms to identify patients at highest risk for infection and treating them presumptively at the time of the ED visit. However, such treatment algorithms can be very nonspecific and may result in unnecessary treatment of a substantial number of persons attending the ED. Mehta and colleagues report a 60% follow-up rate among persons tested.<sup>3</sup> To achieve this follow-up rate the authors themselves called patients, confirmed treatment with private providers, and referred patients still needing treatment to a nearby STD clinic run by the public health department (Mehta, personal communication). Todd et al report that they were able to follow up and treat 70% of the 29 infected patients identified by ED screening,<sup>6</sup> however, the follow-up for these patients was also conducted by the investigators themselves because neither the ED nor the local health department had the personnel or economic resources to follow up infected patients detected by the ED screening (Todd, personal communication). Furthermore, treatment of the index patient is only the first step in STD control; failure to notify and treat sex partners of the index patient may simply result in reinfection. The feasibility and sustainability of an ED screening program will hinge on commitment by both public health and ED staff to work together to assure not only that infected patients receive appropriate treatment, but that their partners are notified of STD exposure and treated appropriately.

EDs are potentially fruitful venues for the detection and treatment of STD as there is a demonstrated high prevalence

of STD among persons tested, and they serve medically marginalized persons without access to routine preventive care and persons with sexual behavior that may place them at risk for STD and HIV. Hospital EDs should consider screening clients for STD if they are located in, or serve a population from an area with high STD rates. Data on local rates of notifiable STD can be obtained from the public health department in the local area. Once prevalence in the ED has been determined, ED and public health staff may use these data for developing strategies to guide presumptive treatment while patients are in the ED, or for selecting patients that would benefit from screening. For example, client age, reported risk behavior, or reason for ED visit could be used as criteria for screening. Overall ED flow should also be considered to determine the most feasible way to integrate screening and specimen collection, and at what time of day screening might capture the majority of infected persons. Consent should be sought from patients targeted for screening, and patients should be counseled regarding the necessity of treatment, if infected. Finally, all positive test results for reportable STD should be provided to the appropriate public health agency for assistance with treatment of the index patient and exposed sex partners, and for surveillance purposes.

One of the keys to a successful revolution is careful selection of the stages on which to wage the war. Available data suggest that the prevalence of chlamydial and gonococcal infections among young adults screened in EDs is at least comparable to that found in traditional clinical venues, and is the same or slightly lower than that in most jails and detention settings.<sup>16</sup> If problems with integration into busy ED operations, patient follow-up and partner management can be overcome, ED screening could be a highly effective way to access a substantial number of persons at risk for STDs who are unlikely to be screened in other venues.

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