

# Partner Counseling and Referral Services for HIV Infection

## New Endorsement of an Old Approach

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**K**nowledge of HIV serostatus is valuable for personal as well as public health. Individuals testing HIV-positive can access antiretroviral therapy, which increases quality of life and survival. Reduction of viral load to undetectable levels reduces, although does not eliminate, infectiousness and risk of transmission. In addition, individuals aware of their infection have substantially lower levels of high-risk behavior than those not aware of their infection.<sup>1</sup>

Available evidence indicates that a substantial proportion of HIV-infected individuals are not aware of their infection. Although approximately 20,000,000 HIV tests are performed in the United States each year, 25% (252,000–312,000) of the estimated 1.0–1.2 million HIV-infected people living in the U.S. are not aware of their infection.<sup>2,3</sup> In some subgroups, this proportion is likely much higher; for example, a study of men who have sex with men in five U.S. cities found that as many as 77% of those testing HIV positive were not aware of their infection.<sup>4</sup> Even among those who are aware, recognition often comes late in the course of their infection. From 1990 to 1992, the proportion of people who first tested HIV positive less than 1 year before being diagnosed with AIDS was 51%; in 2004, this proportion was 39%.<sup>5,6</sup>

Many of the new HIV infections occurring in the U.S. each year are likely attributable to infected individuals not aware of their infection. A recent analysis suggests that the transmission rate among those not aware is approximately 3.5 times higher than the rate among those who are aware of their infection (accounting for between 54% and 70% of new infections).<sup>7</sup> Clearly, reaching and diagnosing HIV-infected individuals and linking them to effective medical care and prevention services—and doing so as early after infection as possible—is important for improving their own health as well as reducing HIV transmission and is a major challenge for the HIV-prevention community.

If 75% of those infected are aware of their infection, how can we reach the other 25%? There are emerging

data that partner counseling and referral services (PCRS)—long a mainstay of sexually transmitted disease (STD) control efforts—should play a key role. In this supplement to the *American Journal of Preventive Medicine*, Hogben et al.<sup>8</sup> report the results of a systematic literature review conducted for the Task Force on Community Preventive Services (Task Force), concluding that there is sufficient evidence to show that PCRS with partner notification (PN) by a public health professional (provider referral) effectively increases identification of a high-prevalence population for HIV testing. Based on this finding, the Task Force recommends the use of provider referral PN for increasing HIV testing to identify previously undiagnosed HIV infection.<sup>9</sup> The analysis by Hogben et al. follows a recent review by Brewer,<sup>10</sup> who examined the case-finding effectiveness of PN—one element in the broader array of services (including risk-reduction counseling, referral to care, and prevention services) offered through PCRS—and concluded that, although the yield of PN for HIV is less than for bacterial STD, PN can contribute meaningfully to HIV case finding.

Partner counseling and referral services have potential ancillary benefits beyond identifying new cases of HIV and linking them to medical care and prevention services. For example, analysis of 2001 PCRS data from North Carolina found that of 1532 partners identified by 1379 index patients, fully half had not previously been tested for HIV.<sup>11</sup> Of these, 64% were tested after notification, and 78% tested negative. Among partners who had previously tested negative for HIV and were re-tested through PCRS, 14% tested positive, suggesting that this population had a remarkably high incidence of HIV infection. Thus, PCRS provides an opportunity to reach a population of HIV-negative individuals at extraordinarily high risk for HIV infection—sex and drug-injection partners of an HIV-positive person—to ensure that they are aware of their risk and to offer them access to HIV-prevention services. In addition, of 592 partners who had previously tested for HIV, 68% had tested positive; thus, PCRS can also provide an opportunity to reach people who have already tested positive who may be involved in ongoing transmission-related behavior, ensure that they are aware of their infection and are in medical care, and provide risk

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reduction interventions to those who continue to engage in risky behaviors. Furthermore, if PCRS provides a heightened focus on index patients who have acute HIV infection, it may be particularly useful in interrupting transmission when people are most infectious and in identifying partners at the highest risk for HIV infection. Finally, it has been noted that information gathered through PCRS can contribute to improved surveillance, identification of sexual and drug-injecting networks, and improved understanding of HIV transmission dynamics at the community level, which can in turn lead to targeted prevention activities.<sup>12</sup>

Partner counseling and referral services remains highly underused, despite evidence that it is an effective strategy for reaching populations at high risk for HIV and diagnosing HIV-infected persons not aware of their infection. A survey of health departments conducted by Golden et al.<sup>13</sup> found that in 22 jurisdictions with HIV reporting, health departments interviewed only 32% of persons with newly reported HIV infection. This finding is consistent with PCRS program data collected by the Centers for Disease Control and Prevention ([CDC], unpublished data). Provider, consumer, and community concerns have all been suggested as possible explanations for low uptake of PCRS. However, a recent systematic review of client and provider attitudes, preferences, practices, and experiences found that, although controversial since its inception more than 20 years ago, PCRS has wide acceptance among diverse groups, such as those seeking HIV counseling and testing, HIV-positive individuals, HIV test providers, and physicians, including those providing care to HIV-positive patients.<sup>14</sup> Insufficient resources and concern about cost effectiveness have also been posited as barriers to more extensive use of PCRS. Only a few studies examining this issue have been reported, but all have found PCRS to be cost effective; one concluded that it is among the most cost effective of all HIV prevention strategies.<sup>15–18</sup> Local policies, procedures, and priorities may be a substantial impediment to more extensive use of PCRS. Golden et al.,<sup>13</sup> in their health department survey, found that in 25 of 27 jurisdictions for which information was available, PCRS was routinely provided to people testing positive in publicly funded HIV counseling and testing sites but that 12 (44%), jurisdictions provided PCRS outside of public health sites only when providers contacted the health department for assistance. Analysis of the 2001 North Carolina data suggests that, when given equal priority, PCRS is as effective for individuals diagnosed in private settings as for those diagnosed in public facilities.<sup>11</sup>

Partner counseling and referral services is certainly not the only strategy to consider in our effort to reach and diagnose those with unrecognized HIV infection. The use of social networks—a strategy closely related to PCRS—has recently been demonstrated to be effective

for accessing populations at very high risk for HIV and identifying people with unrecognized HIV infection.<sup>19,20</sup> There is good evidence that routine HIV screening in healthcare settings can identify many previously undiagnosed people.<sup>21–24</sup> The CDC has recently published revised recommendations for testing in such settings and is currently putting substantial effort into implementing them.<sup>25</sup> Routine HIV screening among jail inmates has also been found to be an effective case-finding strategy in areas with relatively high HIV prevalence.<sup>26</sup> However, because many potential clients in these settings do not get tested, a substantial number of people with previously undiagnosed HIV infection will remain unrecognized.

Each of these strategies can play a valuable role in reaching the 25% of HIV-infected individuals who are not yet aware of their infection; but they complement, and do not replace, PCRS. The CDC provides funding to state and local health departments to support their HIV-prevention efforts. Because PCRS is an effective strategy for reaching people at high risk for HIV, the CDC requires funded health departments to include PCRS as one element in their comprehensive HIV-prevention programs. Based on currently available evidence for its effectiveness and cost effectiveness, the CDC strongly recommends that health departments ensure that all people with newly diagnosed or reported HIV infection receive PCRS.<sup>27</sup> Accomplishing this will require that HIV-prevention community planning groups and health departments review their current activities to determine how PCRS can best be incorporated into their overall HIV-prevention plan. In addition, where HIV and STD prevention activities are not integrated, health departments should consider how these programs can collaborate to maximize the efficiency of partner services activities. To assist prevention programs in this effort, the CDC is developing harmonized guidance and data collection forms for HIV and STD partner services activities to be released later this year. PCRS programs will also need to closely monitor their processes and outcomes to improve efficiency and effectiveness. They will almost certainly need to conduct ongoing education and outreach to healthcare providers and community-based organizations that conduct HIV counseling and testing as well as provide services to HIV-infected persons. The question is no longer should we do PCRS, but, rather, how can we do it most effectively and with the broadest coverage of the infected population?

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