### HIV Counseling and Testing: Less Targeting, More Testing

Approximately 25% of persons infected with HIV nationwide remain undiagnosed. Identifying these individuals represents the biggest challenge for HIV control in the United States. More timely diagnosis of HIV can improve treatment and care of those infected with HIV, prolong survival, and reduce the spread of HIV.

The impact of these late testers on the dynamics of the epidemic is well characterized by the number of persons who are identified with HIV only when they have progressed to AIDS. Each year, more than 1000 New York City residents-3 per dayare diagnosed with concurrent HIV and AIDS,<sup>2</sup> and nationally 40% of new diagnoses are concurrent.3 Many of these late testers have been infected for 10 years or longer, unknowingly exposing their partners to HIV. Indeed, most HIV infections are transmitted by people who are unaware of their status.4

Thus, despite substantial progress in HIV treatment and prevention of maternal-child transmission, little progress has been made in identifying the reservoir of those infected and unaware of their serostatus. We propose that the largest barrier to advancement of this central goal is a continued reliance on a single HIV counseling and testing model. Ironically, the system initially put into place to protect the rights and safety of individuals has now become an impediment to the public health control

Laws governing HIV testing were developed at a time when the infection was untreatable and intensely stigmatizing. As a result, a very cautious approach to testing was adopted from the genetic-counseling model of testing for untreatable conditions.<sup>5</sup> Yet,

even though the HIV epidemic has not remained static, the testing process has, having not changed appreciably since the introduction of the ELISA and Western blot in 1985. Legislation continues to mandate lengthy pretest counseling that varies state to state and by funding stream. A separate written informed consent is still a requirement in more than a dozen states including New York, home to 1 in 6 persons living with HIV.

The imposition of these extra steps has prevented HIV testing from becoming a routine part of medical care resulting in numerous missed opportunities to diagnose, treat, and stop the spread of HIV. We advocate for standardization of verbal informed consent and shifting resources from mandated pretest counseling to effective posttest counseling and linkage to care for those found to be HIV positive.

# STREAMLINING HIV COUNSELING AND TESTING

In New York City, the Department of Health and Mental Hygiene is attempting to apply public health principles to the control of the HIV epidemic. To that end, New York State Regulations governing HIV pretest counseling were clarified in 2005 to allow testing with abbreviated pretest counseling (i.e., streamlined counseling), encouraging provision of testing in medical facilities, while maintaining programs in community based organizations.<sup>6</sup> In conjunction with the introduction of rapid testing, this change has allowed a doubling of New York City-funded HIV testing over the last year. Other states that have simplified testing requirements have seen

comparable increases, suggesting that a streamlined approach to testing results in more people knowing their HIV status.

Proposals to streamline testing are not new. In 1993 and again in 2003, the Centers for Disease Control and Prevention (CDC) recommended inclusion of routine HIV testing in medical settings. Aware that pretest counseling had the potential to become a barrier to testing, they argued that removing prescriptive requirements for pretest counseling would allow greater availability of testing and thus increase opportunities for HIV-infected persons to know their status. This view is supported by recent recommendations of the US Preventive Services Task Force who, upon reviewing the evidence, concluded that potential benefits of routine testing outweigh potential harms.7

### DEBATE ON THE ROLE OF PRETEST COUNSELING

Still, considerable debate persists regarding the merits of streamlined HIV testing. The National Organizations Responding to AIDS, a coalition of over 175 AIDS and health organizations, responded warily to the then new CDC initiative. Members were concerned that this approach may lead to inadequate or incorrect knowledge of HIV, HIV risk reduction, and HIV testing.8 In recent Food and Drug Administration testimony on whether to recommend over-the-counter sales of rapid HIV tests for home use, many testified that counseling is necessary to manage any emotional response a person may have upon learning his or her serostatus, to direct newly diagnosed persons to medical care, and to teach behavioral changes

necessary to avoid infecting others. In New York City and elsewhere, some community organizations argue for continuation of lengthy face-to-face pretest counseling to ensure that clients are ready to be tested.

# LACK OF EVIDENCE ON EFFICACY OF PRETEST COUNSELING

Despite near universal coupling of traditional counseling with HIV testing, both domestically and now abroad, there are no studies establishing the additive value of pretest counseling in counseling and testing services. The lack of objective information in this area reflects the role of tradition and dogma in directing HIV prevention efforts and requires that we rethink the function of the traditional counseling and testing model.

A close look at published studies evaluating combined counseling and testing programs challenges the belief in a benefit of pretest counseling. A meta-analysis of 27 studies examining the effects of HIV counseling and testing on sexual risk behavior found that, following a counseling and testing event, persons who are HIV-positive and couples that are serodiscordant reduced unprotected intercourse and increased condom use more than did HIVnegative and untested participants. 10 However, HIV-negative persons did not modify their behavior more than individuals who did not receive counseling and testing. In other words, finding out one was HIV positive does reduce risk behaviors, but finding out one was negative does not necessarily result in the same outcome, despite the fact that pretest counseling is offered in both cases. This suggests that

discovering one is HIV-infected and the subsequent counseling around this diagnosis explains the reduced risk behavior, rather than pretest counseling.

The results from Project RESPECT,11 a national study conducted by the CDC, are often cited as evidence to support the need for coupling counseling and testing. In Project RESPECT, counseling incorporating personalized risk reduction plans significantly increased condom use and decreased sexually transmitted diseases. However, HIV pretest counseling is not risk-reduction counseling but rather informational counseling with a focus on assessing readiness to test, different from the Project RESPECT experience. Understood in this way, there is no valid reason not to test patients who have given consent to be tested. Counseling might best be conducted after the patient knows their status, allowing for tailored messages dependent on serostatus.

#### **COST-EFFECTIVENESS**

Recent studies have shown that routine voluntary screening is cost-effective. Even in lowprevalence populations, screening for HIV once every 3 to 5 years is justified on both clinical and cost grounds and compares favorably with screening strategies for such conditions as breast cancer, colorectal cancer, diabetes, and hypertension.12 In contrast, other studies have found that traditional, client-centered counseling and testing is much less cost-effective (\$110,000 per infection prevented) because of high labor costs and low HIV prevalence among those seeking testing.13 In New York City alone, we estimate that over 5 times more tests can be funded for the

same financial investment when using a routine, streamlined approach rather than the traditional voluntary counseling and testing model, resulting in the detection of 500 additional cases of HIV. In a time of diminishing resources and increased scrutiny of the efficacy of prevention programs, a routine, streamlined testing approach makes sense from economic, public health, and humanitarian points of view.

#### **CONCLUSIONS**

HIV infection is too often discovered at an advanced stage. Identifying persons early in infection and providing them with the appropriate counseling, education, and opportunities for linkage to care are the next necessary steps to controlling the HIV epidemic. Yet, numerous barriers persist. Advocates oppose implementation of routine screening in medical and other settings in favor of traditional counseling and testing models, despite clinician's assertions that it is impractical to provide such counseling within the context of routine medical care. Some Ryan White funding, the second largest funding stream for care and treatment services for HIV infected persons, comes with mandates for client-centered counseling for funded organizations, and even the CDC paradoxically requires extensive data collection based entirely on traditional clientcentered counseling for programs funded through that agency, making the more routine offering of HIV testing impossible.

As with sexually transmitted diseases and other public health challenges, well-established and effective principles are applied to prevent the disease and its spread. These principles include

appropriate routine screening of persons at risk. To date this approach has not been widely applied to HIV.<sup>5</sup> We believe that 25 years into the epidemic, a paradigm shift is in order. To change the course of the HIV epidemic in this country, we must realign our priorities and focus on (1) reaching the large numbers of individuals who do not yet know they are infected, (2) connecting to care those who test positive, (3) ensuring continued access to care, and (4) reemphasizing prevention among those who are HIV positive to minimize onward spread of the virus. To accomplish this, we propose that rules and regulations be streamlined so that testing can be implemented more effectively into a variety of venues. We feel that the United States is ready for a diversified approach to diagnosing HIV infection. One size does not fit all. The time has come to target less and test more

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#### References

1. Glynn M, Rhodes P. Estimated HIV prevalence in the United States at the end of 2003. Presented at: The National HIV Prevention Conference; June 12–15, 2005; Atlanta, Ga. Abstract 595.

#### **EDITORIALS**

- 2. New York City Commission on HIV/AIDS. Report of the New York City Commission on HIV/AIDS: recommendations to make NYC a national and global model for HIV/AIDS prevention, treatment, and care. October 31, 2005. Available at http://www.nyc.gov/html/doh/downloads/pdf/ah/ah-nychivreport.pdf. Accessed March 29, 2006
- 3. Neal JJ, Fleming PL. Frequency and predictors of late HIV diagnosis in the United States, 1994 through 1999. Presented at: The 9th Annual Conference on Retroviruses and Opportunistic Infections; February 24–28, 2002; Seattle, Wash. Abstract 474M.
- 4. Holtgrave DR, Anderson T. Utilizing HIV transmission rates to assist in

- prioritizing HIV prevention services. *Int I STD AIDS*. 2004;15:789–792.
- 5. Freiden TR, Das-Douglas M, Kellerman SE, Henning KJ. Applying public health principles to the HIV epidemic. *N Engl J Med.* 2005;353: 2397–2402.
- HIV Laboratory Test Reporting. Amendment to Part 63 of Title 10 NYCRR. New York State Register. May 11, 2005.
- 7. Chou R, Huffman LH, Fu R, Amits AK, Korthuis PT. Screening for HIV: a review of the evidence for the US. Preventive Services Task Force. *Ann Intern Med.* 2005;143:55–73.
- 8. National Organizations Responding to AIDS. Letter to Director of

- HIV/AIDS Prevention Division at Centers for Disease Control and Prevention in response to "Advancing HIV Prevention: New Strategies for a Changing Epidemic" initiative. Available at; http://www.nytimes.com/2005/11/05/health/05aids.html. Accessed April 4, 2006.
- 9. Leland J. US weighs whether to open an era of rapid HIV detection in the home. *New York Times*. Nov 5, 2005. Available at: http://www.nytimes.com/2005/11/05/health/05aids.html. Accessed March 30, 2006.
- 10. Weinhardt LS, Carey MP, Johnson BT, Bickham NL. Effects of HIV counseling and testing on sexual risk behavior: a meta-analytic review of published

- research, 1985–1997. Am J Public Health. 1999;89:1397–1405.
- Kamb ML, Fishbein M, Douglas JM Jr, et al. Efficacy of risk-reduction counseling to prevent human immunodeficiency virus and sexually transmitted diseases: a randomized controlled trial. Project RESPECT Study Group. *JAMA*. 1998;280(13):1161–1167.
- 12. Paltiel AD, Weinstein MC, Kimmel AD, et al. Expanded screening for HIV in the United States—an analysis of cost-effectiveness. *N Engl J Med*. 2005;352:586–595.
- 13. Cohen DA, Wu SY, Farley TA. Cost-effective allocation of government funds to prevent HIV infection. *Health Affairs*. 2005;24:915–926.