Using Peer Recruitment and OraSure to Increase HIV Testing

| Sue Vargo, PsyD, Gail Agronick, PhD, Lydia O'Donnell, EdD, and Ann Stueve, PhD

We describe a community-based pilot study to boost HIV testing in a minority community through social network recruitment and a noninvasive HIV testing methodology.

Over an 11-month period, the number of test takers at the intervention site increased by 71.7%, and the proportions of test takers with risk factors similar to those of peer recruiters (heterosexual sex and multiple partners) increased by 24.2% and 19.5%, respectively. At a comparison site, testing remained stable, while the proportion of test takers reporting heterosexual sex and multiple partners decreased by 42.5% and 21.8%, respectively.

The use of a social network recruitment strategy in combination with an oral HIV test shows promise in increasing testing and in targeting populations.

In 2000, Springfield, Mass, a midsize city of 150 000, was second in the state to greater Boston in its HIV seroprevalence level. Brightwood Health Center in Springfield had an established HIV counseling and testing site that offered standard blood-based testing. Education Development Center, Inc of Newton, Mass, and the Massachusetts Department of Public Health, Brightwood's funder, asked the health center to collaborate on a pilot study to increase the volume of testing and to target high-risk adults for testing. Increasing targeted testing is a crucial prevention strategy that also facilitates linkage to early HIV treatment, which is widely available in Massachusetts.

We designed an evaluation study to compare testing volume and the risk profiles of test takers at Brightwood with those of clients at a comparison site (another publicly funded, anonymous test site in a community health center serving an area with similar racial and ethnic characteristics and socioeconomic status). The intervention at Brightwood included 2 components: implementation of a noninvasive HIV test, OraSure (OraSure Technologies Inc, Bethlehem, Pa), and use of high-risk women to recruit peers from their social networks for testing. The comparison test site offered the standard protocol of blood-based testing only. During an 11-month intervention period, both sites collected anonymous information on test takers' risk profiles.

INTERVENTION COMPONENTS

Brightwood staff received training in the noninvasive oral HIV test and collecting study-related data. OraSure is an established HIV testing methodology that uses oral-mucosal samples collected with cotton fiber pads. The sample collection is brief and simple to perform, and the procedure requires only modest training. OraSure was chosen because its sensitivity and specificity are comparable to that of blood-based testing (i.e., 99.9%)[1] and because of its acceptability to a wide range of populations.[2,3] In addition, a pool of women that a previous HIV prevention intervention trial at Brightwood had determined were high risk were invited to become peer recruiters. Their role was to encourage members of their social networks to be tested.

Recruiters (n=97) completed a 30-minute small group training that included demonstration of the test kit and reviewed HIV transmission modes to help target male and female peers with multiple sexual risks. Training was active and participatory; potential recruiters brainstormed objections people might make to being tested and came up with responses they could use. The trainer also coached participants on how to terminate recruitment conversations that felt unsafe—for example, if a recruit became angry or threatening. Participants were told they could earn a grocery store coupon worth $10 if they recruited 3 or more test takers and that recruited test takers would also earn a $5 coupon. A total of 87.6% of participants (n =85) completed an evaluation asking about intentions to recruit and level of preparedness following training. The participants' mean level of preparedness to address 6 common excuses for not testing ranged from 4.0 (SD =1.3) to 4.4 (SD=1.2) on a

KEY FINDINGS

- The use of a social network recruitment strategy combined with noninvasive HIV testing shows promise in increasing the volume of testing and in targeting at-risk populations for testing.
- The training curriculum for peer recruiters is brief and relies on basic HIV transmission information. This intervention can be incorporated into many existing HIV education workshops in community-based settings, adding important messages about the importance of early testing and the availability of a noninvasive oral HIV test.
- This simple and easily implemented addition to existing HIV education programs could quickly create a pool of peer recruiters with the potential to dramatically increase local HIV testing rates.

TABLE 1—Characteristics of HIV Test Takers at Intervention and Comparison Sites: Mass, April 2000–February 2002

	Intervention Site			Comparison Site		
	Year 1	Year 2	Change in Proportion of Test Takers, %	Year 1	Year 2	Change in Proportion of Test Takers, %
Total no. test takers (includes first-time and repeat test takers)	166	285		460	458	
Male, n	86	141	−4.7	274	288	5.3
% of total test takers	51.8	49.5		59.6	62.9	
Female, n	80	144	4.6	186	170	−8.9
% of total test takers	48.2	50.5		40.4	37.1	
Risk factors						
Heterosexual sex, n	34	77	24.2	93	65	−42.5
% of total test takers	20.5	27.0		20.2	14.2	
Multiple sex partners, n	53	113	19.5	181	148	−21.8
% of total test takers	31.9	39.6		39.3	32.3	
No prior test, n	57	103	5.0	145	181	20.2
% of total test takers	34.3	36.1		31.5	39.5	

Note. Change in proportion of total test takers = 1 – (% of total test takers in year 1/% of total test takers in year 2).

5-point Likert scale in posttraining evaluations.

DISCUSSION AND EVALUATION

In increasing total testing volume and targeting high-risk individuals, we hoped to reach a greater proportion of test takers whose risk profiles were similar to those of our peer recruiters—that is, who were high risk because of multiple heterosexual partnerships. We also expected that a noninvasive oral HIV test might be more widely acceptable than standard blood testing. This pilot test of the 2 intervention components was successful in increasing overall testing volume and in reaching specific subgroups resembling the peer recruiters.

Over 11 months, the total number of test takers at Brightwood increased from 166 to 285 (a 71.7% increase), while overall testing remained stable at the comparison site (a 0.4% decrease). Table 1 shows the self-reported characteristics of test takers in years 1 and 2 at both sites. At Brightwood, the proportion of test takers reporting heterosexual sex as a risk factor increased 24.2%, the proportion reporting multiple sex partners increased 19.5%, and the proportion of women increased 4.6%. The proportion of test takers at the comparison site reporting heterosexual sex as a risk factor decreased 42.5%, the proportion reporting multiple sex partners decreased 21.8%, and the proportion of women testers decreased 8.9%. (Change in proportion of total test takers = 1 − [% of total test takers in year 1/% of total test takers in year 2].) These comparisons suggest that the proportion of test takers resembling the peer recruiters, who were women primarily at risk for HIV through sexual relationships, increased at Brightwood; these 2 risk indicators were less frequently reported at the comparison test site during the same time period.

One measure of the peer recruiters' effect is the correlation between the number of active recruiters and the total number of test takers during each month of the intervention period. With recruiters being considered "active" for the 2 months following training, there was a strong positive correlation (Pearson $r = 0.70$) between the number of active recruiters and total number of testers. Additionally, anecdotal reports (test site staff, unpublished communication), and data from Brightwood's clients themselves, indicate that test takers were indeed learning about Brightwood's services through peer-based channels. Although this does not account for the entire increase in test takers from year 1 to year 2, it does suggest that social networks played a strong role. However, a larger-scale trial testing the 2 components individually is needed to establish their relative effectiveness.

PEER RECRUITMENT TRAINING

- Ninety-seven women who had participated in an HIV prevention trial agreed to be trained to recruit peers for HIV testing.
- The recruiter training lasted 30 minutes and involved up to 3 women at a time.
- The curriculum reviewed HIV transmission risks to help recruiters identify high-risk peers and prepared recruiters to respond to common objections to testing. Participants also were shown a noninvasive oral HIV test kit and informed about its high level of reliability.

NEXT STEPS

Brightwood continues to offer noninvasive oral HIV testing. Staff and peer educators at the center are considering how to add recruiter training to existing HIV education curricula. Through routine data collection, the test site staff will be able to see whether testing volume remains at intervention levels or begins to decline without peer recruiters. Education Development Center and the Massachusetts Department of Public Health both support the implementation of a large-scale evaluation trial involving test sites across the state that would test the 2 components separately and in combination. ■

About the Authors

Sue Vargo, Gail Agronick, and Lydia O'Donnell are with Education Development Center, Inc, Newton, Mass. Ann Stueve is with Columbia University, Mailman School of Public Health, New York.

Requests for reprints should be sent to Sue Vargo, PsyD, Education Development Center, Inc, 55 Chapel St, Newton, MA 02458 (e-mail: svargo@edc.org).

This report was accepted June 3, 2003.

Contributors

S. Vargo implemented the study. G. Agronick, L. O'Donnell, and A. Stueve participated in data analysis. S. Vargo, L. O'Donnell, and A. Stueve contributed to the study design.

Acknowledgments

This study was supported by National Institute of Mental Health grant 1R03MH62728-02.

The authors thank Maureen Desabrais, Sandy Ortega, and Marisol Rodriguez of Brightwood Health Center for their help at the test site. They also thank Laureen Malatesta, director of health services, and Lisa Goldberg, research assistant, Office of Research and Evaluation, both of the AIDS Bureau, Massachusetts Department of Public Health, for their assistance with this project.

Human Participant Protection

All study protocols were approved by the institutional review boards of Baystate Medical Systems (the study site) and Education Development Center Inc.

References

1. Gallo D, George JR, Fitchen JH, Goldstein AS, Hindahl MS. Evaluation of a system using oral mucosal transudate for HIV-1 antibody screening and confirmatory testing. *JAMA.* 1997;277:254–258.

2. Bauserman RL, Ward MA, Christmyer CS. Oral fluid testing: breaking down barriers to testing. National HIV Prevention Conference; August 29–September 1, 1999; Atlanta, Ga. Abstract 403. Available at: http://www.cdc.gov/hiv/conferences/hiv99/abstracts/403.pdf. Accessed October 10, 2003.

3. Judson F, Breese P, Winters R, Columbus C, Santistevan C, George JR. Using oral fluid specimens to extend HIV antibody testing to difficult to reach urban and rural populations. In: Program and abstracts of the XI International Conference on AIDS; July 7–12, 1996; Vancouver, British Columbia. Abstract LB.C.6059.

Third Edition

NEW!

Standards for Health Services in Correctional Institutions

Developed by APHA Task Force on Correctional Health Care Standards

The long-awaited third edition of *Standards for Health Services in Correctional Institutions* is now available.

The third edition defines the scope of services that are necessary to provide adequate care, basing these standards upon principles of public health and constitutional standards developed through litigation. The book has been cited as the standard for jail and prison health services in state and federal court decisions. The new edition includes significant changes including expansion of both the mental health section, and children and adolescents section.

The new *Standards* is easy to use and the most comprehensive and inclusive set of standards for health services in correctional institutions. It is an essential reference for anyone in the field of corrections.

ISBN 0-87553-029-X
Softcover ▮ 182 pages
$26.50 APHA Members ▮ $37.95 Nonmembers
Plus shipping and handling

American Public Health Association

APHA

Publication Sales
Web: www.apha.org
E-mail: APHA@TASCO1.com
Tel: (301) 893-1894
FAX: (301) 843-0159

PRS03J5