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National Alliance of State and Territorial AIDS Directors

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**Meeting and Planning Calendar** VISIT [NASTAD.ORG](http://NASTAD.ORG) →**How Do We Target Populations?**

Since the early years of the epidemic, public health departments have recognized that general messages about HIV/AIDS, alone, are not enough to prevent new infections; effective prevention programs need to be population-specific and targeted. Moreover, the best prevention programs are specifically tailored to meet the needs and circumstances of the populations they serve. Interventions continue to be developed that incorporate not only risk behavior but also age, race/ethnicity, gender, culture, and other life circumstances like housing and employment status.

The development of these population-specific messages is no easy task. Public health officials and community providers continue to grapple with the challenge of implementing targeted interventions that reach those communities bearing the greatest burden of the epidemic while being mindful to not stigmatize marginalized populations. How do we craft the right messages and get them out to the right people? How do you best balance the rights of individuals with the goals of public health?

These questions, and ultimately knowing whether we are successfully reaching those at greatest risk, are some of our toughest challenges at this point in the epidemic. Traditional programs target groups who share characteristics of prioritized high-risk populations. However, we understand that targeting individuals that match a priority profile may not actually reach those individuals who will share a high-risk encounter with a person living with HIV. For example, providing outreach and prevention counseling to adult white men who have sex with men (MSM) who attend gay-oriented venues has the potential to reach some of those at greatest risk, but these services may not truly identify those few individuals who will actually be exposed to the virus. Given our limited public health resources, it is even more important to be able to reach the specific individuals who will likely encounter the virus. What steps can be taken to ensure our programs are truly intervening as close to the point of infection as possible?

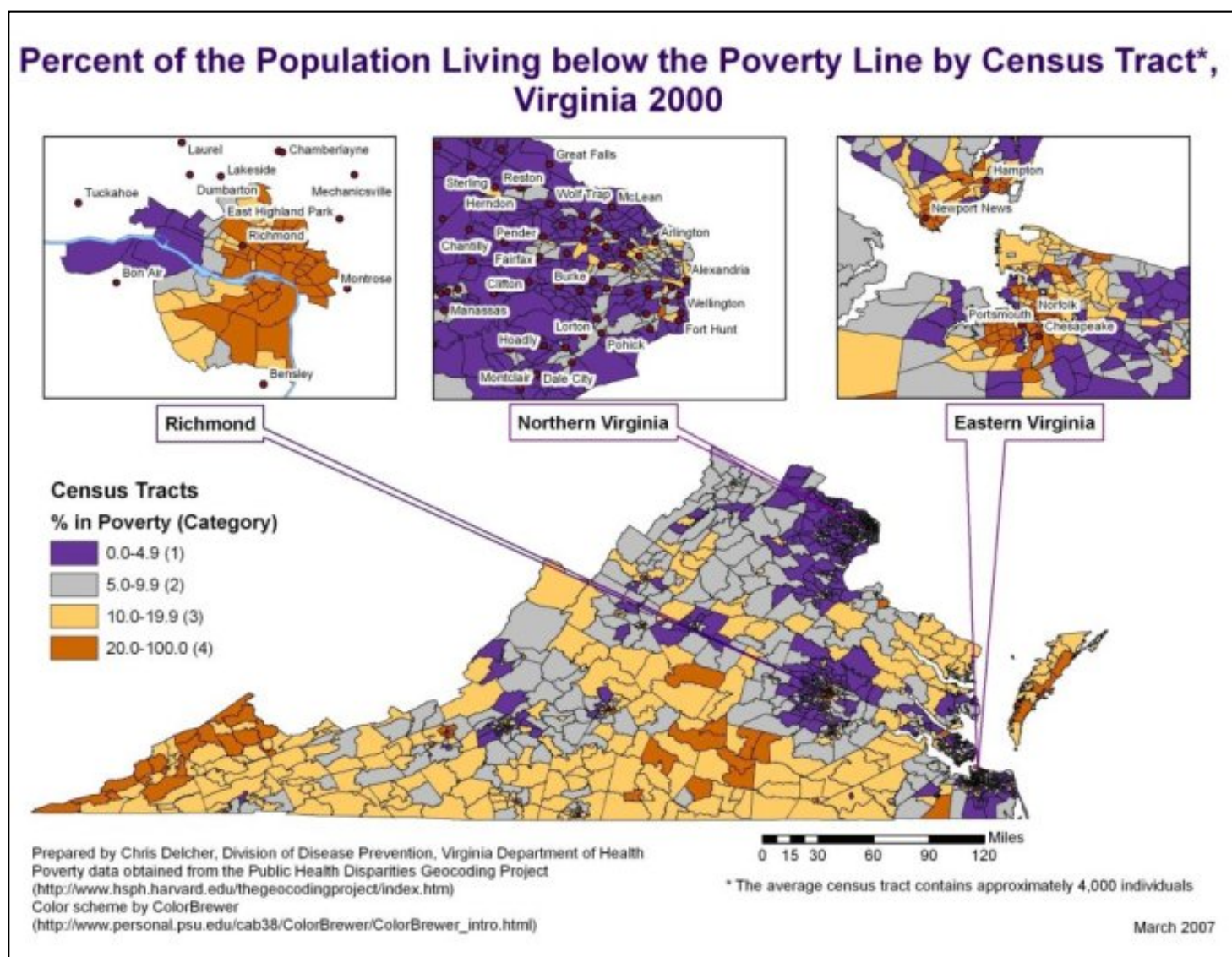
This month's *HIV Prevention Bulletin* focuses on two strategies that attempt to address the above questions. The first, geo-mapping, visually displays surveillance data geographically as a tool to better inform the location of

prevention messages and services. The second relies on the social networks of those at greatest risk to facilitate more precise targeting of group or structural interventions and to identify and recruit into prevention services those within the networks who might have the greatest impact on the network as a whole.

## Geo-Mapping

Since the 1990s, Geographic Information Systems (GIS) – an automated system for the capture, storage, retrieval, analysis, and display of spatial data – have been used more frequently in public health programming.<sup>1</sup> The technology allows access to information within small geographic boundaries, such as city blocks, that have not traditionally been used for HIV prevention programming. GIS's analytic possibilities include the capacity to map spatial analyses and assess health-related disparities and resources through space and time. These have proven to be valuable tools because of both their provocative visual effects and the added information they provide for surveillance, prevention, and care programs.<sup>2</sup>

Geo-mapping, sometimes also called geo-coding, is another key GIS function. Geo-mapping is "the process by which an entity on the earth's surface, a household, for example, is given a label for identifying its location with respect to some common point or frame of reference."<sup>3</sup> The map below, for example, illustrates, by census tract, the percent of Virginia's 2000 population living below the poverty line.



Practically speaking, geo-coded data are assigned corresponding latitudinal and longitudinal points that allow for the determination of a fairly exact location of a place. Prior to the advent of this technology, ZIP codes were the smallest geographic area of detail typically displayed on a map.<sup>4</sup>

There are myriad possibilities for using GIS and geo-mapping in public health practice. With the more robust

software packages, one is able to map out several layers of data. For example, information about disease incidence by census data, bus routes, and parks could all be presented within the same map. As Kim Elmore, a Medical Geographer and GIS Analyst with the Geospatial Research Analysis and Services Program (GRASP) at the Centers for Disease Control and Prevention (CDC), explains, it has been particularly useful when looking at interventions for tropical diseases such as malaria because public health workers have been able to map disease incidence against the flight range of mosquitoes to determine the best distribution areas for bed tenting.<sup>5</sup>

Closer to home, some state and local health departments have used geo-mapping to inform their system of prevention services. Mapping HIV/AIDS surveillance data by ZIP codes or clusters of ZIP codes allows health department staff to more specifically identify the populations at highest risk. These specific geographic, population, and risk data then more precisely inform priority populations which can, for example, be articulated in a jurisdiction's comprehensive HIV prevention plan and operationalized in subsequent health department requests for proposals (RFP). The resulting science-based RFP allows health departments to be more explicit about the setting and/or venues of funded programs, thereby better targeting populations at greatest risk for infection.

To better understand how health departments have used geo-mapping for their HIV/AIDS programs, NASTAD spoke with public health staff in New York City and Virginia, both of which use GIS technology and geo-mapping to inform their prevention programming.

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### New York City's Experience with Geo-Mapping

*NASTAD spoke with Christobal Jacques from the New York City Department of Health and Mental Hygiene and Randi Baker from the Brooklyn AIDS Task Force.*

Frustrated by the steady incidence of approximately 4,500 new HIV cases each year over the past five years, with 25 percent of these individuals receiving a simultaneous AIDS diagnosis, Christobal Jacques, Prevention Specialist with the New York City Department of Health and Mental Hygiene's HIV Prevention and Control Bureau, and Randi Baker, Community Resource Organizer for the Brooklyn AIDS Task Force, embraced the use of geo-mapping. "We knew then that many of [the 25 percent diagnosed with HIV and AIDS] had been infected for approximately 12 years, and, during this time, they didn't know their status and were likely infecting others," says Jacques. "We knew we had to do better to address this."

Due to confidentiality regulations, the New York City Department of Health and Mental Hygiene is currently able to only access HIV surveillance data at the United Hospital Fund (UHF) level, which is essentially limited to a cluster of ZIP codes. Recognizing the value of targeting services with greater specificity at the block and/or housing development level, the health department was very interested in taking steps to move towards accessing more specific data using geo-mapping.

In the meantime, the health department was using geo-mapping technologies in other innovative ways. Using respondent driven sampling (RDS), they interviewed women of color in an area of Brooklyn with high frequency of commercial sex work and injection drug use. They then mapped out these responses and offered HIV counseling

and testing in these locations. This led to quite alarming results. Testing at these sites identified a 30 percent seropositivity rate. "It was astounding to get these sorts of results and the follow up was overwhelming," reports Jacques. As a result, New York City has formed a coalition of health department staff, community based providers, and community researchers to work together to seek funding for further use of geo-mapping, social network analysis, and RDS to identify positive individuals and link these people to care. "It's very exciting. [This is a] completely geographically-specific project that is mobilizing the community for the community," explains Baker.

The Brooklyn coalition has faced some challenges, most notably, getting full endorsement for the use of monetary stipends for the RDS effort. However, coalition members are hopeful that their work, as well as the work of a sister project exploring the use of mapping techniques to better pinpoint service provision (counseling and testing and linkages to care) for individuals living on and off the street through a 24-hour mobile needle exchange van, will soon be funded.

## Virginia's Experience with Geo-Mapping

*NASTAD spoke with Jeff Stover and Chris Delcher from the Virginia Department of Health.*

Because of the unique way in which counties and cities report data in Virginia, it was particularly beneficial for the health department to utilize geo-coding software. A Virginia state law designates all counties and cities as independent entities within the Commonwealth. Therefore, reportable disease data collection forms include a city, county, and street address, any one of which could be missing at a given time. If the city or county is missing, the case is classified under the individual's address, but if the address is missing, the case is classified by the reporting provider's address. As Jeff Stover, Director of Research and Informatics with the Virginia Department of Health's Division of Disease Prevention (VDH), reports, the use of geo-mapping has helped them to improve data quality management and allowed the re-assignment of ten percent of their chlamydia and gonorrhea cases annually since 2002.

In the late 1990s, VDH began using GIS and geo-mapping as part of its "Outcome Assessment through Systems of Integrated Surveillance" (OASIS) demonstration grant from CDC which supported innovations in sexually transmitted disease (STD) surveillance. Using maps to display outbreak clusters, Virginia was better able to know where to target outreach and services. They now routinely provide this information to disease intervention specialists (DIS) to help them better target their efforts.

Virginia currently has a robust geo-mapping program and is one of the three jurisdictions recently awarded cooperative agreement funds for "Evaluating Integration of HIV/AIDS Surveillance Data with a Geographic Information System." With these resources, they expect to be able to get an even more accurate picture of the HIV/AIDS epidemic. For example many individuals have one address when they receive their HIV diagnosis and another when they develop AIDS. The staff are interested in assessing whether this has to do with the location of HIV/AIDS care and treatment services.

In addition to using geo-mapping to identify where to locate prevention and counseling and testing programs, VDH has worked with the Virginia Department of Transportation to overlay bus route data with morbidity data to assess which routes are best suited for public information campaigns and which neighborhoods should be slated for prevention messages on billboards.

Chris Delcher, Analysis, Visualization, and Reporting Coordinator for VDH, comments that "while mapping isn't new, [one of its strengths] is that people are amazingly receptive to seeing data presented as a map, and this display of fairly technical and complex information has been a wonder for drawing people in." Virginia has received feedback that people actually *enjoy* looking at surveillance data in this way and that, with the inclusion of these types of maps, community planning group members "actually read the epi profile."

The Virginia Department of Health staff admits there are some limitations. For one, the software can be expensive. Also, in order for geo-mapping to be optimally meaningful, one needs correct data like client address. If individuals are unwilling to provide this or have circumstances that don't allow him or her to do so, the quality of the data can be compromised. In particular, public health geographers argue that there may be a lot of value in looking at issues by street address for places like housing developments. However, in instances where the concerns about confidentiality are too great for this level of specificity, there is a lot of flexibility with the software and data can be aggregated a number of ways, such as by ZIP code, census tract, county, etc.

Despite this flexibility, confidentiality concerns remain a major barrier to use of geo-mapping, and Delcher feels these concerns and the confidentiality protections surrounding these data are some of the main reasons geo-



varied. However, there are several important concepts in social network theory that have important implications for disease prevention. The first is the concept of centrality, which posits that there may be some people within the network who are more "important" in the actions of the network as a whole and who have more influence on the network group norms.<sup>7</sup> In the diagram above, this would be the person in the middle that has the most ties. Related to the concept of centrality is the idea that some members of a social network serve as "bridges." These people connect one network to another, essentially mixing the networks, and hence bringing the norms and behaviors – including HIV risk – from one group to another.<sup>8, 9</sup>

### Uses of Social Networks in HIV/AIDS

In the HIV/AIDS epidemic, social network approaches have been used by researchers to help understand what has been going on in affected populations since very early in the epidemic.<sup>10</sup> This approach has been particularly helpful to researchers exploring the epidemic among IDU.<sup>11</sup> This research helped build greater understanding about IDU that greatly influenced the interventions designed to prevent injection-based HIV transmission, leading researchers and programmers to develop and implement programs focused on safer injection equipment/works and structural interventions focused on drug paraphernalia laws, etc.

At the same time, a social network approach can help to understand what is NOT going on in a community. For example, HIV may not be able to penetrate closed networks, so understanding the nature of a network will help program planners direct resources to those which have a greater likelihood of encountering HIV. That is, not only must there be HIV infection among the members of a social network, but the social network must function to ensure that HIV is transmitted among its members – so it is the nature of how the network functions that is of importance. "If the personal networks of infected people are small and not connected to larger, more interacting components, transmission may be impeded. The presence of transmitting behaviors alone may not be sufficient to produce significant spread of disease."<sup>12</sup>

Not only can a social-network approach help understand what is going on in communities and better understand the needs of those within populations who are more greatly impacted by HIV, but it can also help more specifically target those at greatest risk within various populations. As has been mentioned, social network theory maintains that changing or impacting social networks norms will influence individual behavior change<sup>13</sup> and Trotter and colleagues say that social network-oriented interventions will complement individual behavior change strategies.<sup>14</sup>

Furthermore, as Starke-Livermore's article on California's use of social networks for outreach in IDU communities explains, research also shows that network/group norms have been shown to directly influence individual self concepts.<sup>15</sup> Here, the important social networking concepts of centrality and bridging come into play. Peers who are central or important within the network have the potential and influence to affect group norms.<sup>16</sup> "If the initial prevention or intervention message is successfully transmitted to a central or core individual in the network, there is a good chance that person will subsequently transmit it to part or all of the rest of the network."<sup>17</sup>

Yet a more widespread use or application of a social network approach for HIV/AIDS prevention has been impeded by the overwhelming emphasis on the individual as the locus for impacting HIV transmission.<sup>18</sup> Recent frustration with the perceived stagnation in the reduction of new HIV cases nationally, however, has led to a greater acceptance and attention to a multi-layered, multi-level strategy that includes social-level analysis like social networks. For example, Adimora and colleagues have been looking at the impact of the bridging phenomena in social networks in African American communities in North Carolina and have found that concurrency – a bridging mechanism where members of a network maintain concurrent sexual partners– facilitates transmission of HIV. They suggest that impacting the structures which create this network group norm can impact or mitigate this bridging/concurrency factor.<sup>19</sup>

From 2003-2005, CDC supported a two-year demonstration project in nine community based organizations in seven cities to evaluate the use of social networks as a recruitment strategy for HIV counseling and testing services. This project found six percent newly-identified HIV infections among those recruited for testing, "five times the average prevalence reported in publicly-funded counseling, testing, and referral (CTR) sites."<sup>20</sup> These projects led to the development of CDC's "[Social Networks Testing: A Community-Based Strategy for Identifying Persons with Undiagnosed HIV Infection-Interim Guide for HIV Counseling, Testing, and Referral Programs](#)."<sup>21</sup>

This guide provides a method for using social networks for CTR and outlines four main phases of program planning:

1. Recruiter Enlistment,
2. Engagement,
3. Recruitment of Network Associates, and

#### 4. Counseling, Testing, and Referral.

The key goal of this strategy is to enlist members of any particular social network to recruit other members of their network for HIV CTR services.

As previously discussed, the ultimate goal of this strategy may be to enlist members of a network to find and connect with others in that network with risk reduction messages, but the strategy also serves as an intervention for those who are recruited,<sup>22</sup> as the literature indicates that those peers have motivations to model the behavior (i. e., risk reduction) they are being enlisted to recruit individuals into.

CDC further supports the dissemination and use of this strategy; a Satellite Broadcast was convened in 2006<sup>23</sup> and CDC will convene a series of regional training of trainers for health departments beginning this year. (For more information, contact [Maestro Evans](#)).

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### **Using Social Networks: California's Satellite Syringe Exchange Program Experience**

*By Shana Starke-Livermore, Research Scientist in the HIV Prevention Research and Evaluation Section, California Office of AIDS*

The California State Office of AIDS Education and Prevention Branch utilizes a social network model as both a needs assessment strategy and as a strategy to target our interventions to those most in need. Inherent social networks within the IDU community are being studied to determine the extent of the networks, the risk behaviors of those IDU within the networks, and how these networks can be utilized and formalized to reduce HIV and hepatitis transmission risks in this high need population. More specifically, California funds the IDU Satellite Syringe Exchange Program/Project, which formalizes the relationship between Satellite Syringe Exchangers (SSEs) and the public health system through peer-based HIV prevention interventions.

In this intervention, IDU who regularly exchange syringes for those who are unwilling or unable to access Syringe Exchange Programs (SEP) are recruited from the community, surveyed about their own risk behaviors and their prevention activities with IDUs. These SSEs are trained on safe exchange practices and improving their role as peer educators, as well as peer-based prevention education, strategies to facilitate distribution of additional materials through secondary syringe exchange, and on syringe exchange precautions. Intervention development and implementation vary across the various IDU SSE Program sites since each intervention is tailored to the specific network of IDUs accessing it. Training modules for the SSE peer educators are developed based on user requests and community need. Maintaining uniformity and consistency across sites at some level was required for a cross site evaluation, however, standardized protocols were impossible since political, legal and community acceptance rates varied from county to county and sometimes city to city.

From California's perspective, the rationale for using a social network approach for this population is grounded in solid, well-established research. Peer-based prevention has been a widely-used strategy for HIV prevention with drug users that capitalizes on peer influence processes. Research shows that peer educators may have access to and influence of drug users at highest HIV risk and may be able to alter group norms and risk behaviors. Through social diffusion, a process by which an innovation is adopted and gains acceptance by members of a certain community, *indigenous peer-based prevention* may potentially impact risk behaviors of large segments of communities at risk.<sup>1</sup> Peer-targeted prevention may be a means of self- and community-empowerment and serve as an important step in organizing drug users and other disenfranchised groups.<sup>2</sup>

Peer-targeted prevention can also affect behavioral risk reduction of the peer-targeted prevention educators. Social identity theory<sup>3,4</sup> holds that when individuals identify with a group, the collective group concept becomes part of their self-concept. In this process, a redefinition of self emerges and the individuals' behaviors tend to become congruent with the group's goals and actions. Participants in a peer-based intervention who were encouraged to provide peer-targeted prevention to drug users were more than three times as likely to report cessation of drug injection, almost three times as likely to report reduction in needle sharing, and over seven times more likely to report increased condom use with casual partners than IDU who did not participate in the peer-based intervention.<sup>5</sup> The intervention was equally effective for HIV sero-positive and sero-negative participants. Some participants reported that to be respected as peer educators they could not be hypocritical, which may have helped

promote and sustain their own behavioral risk reduction.<sup>6</sup> The study results support the premise that public advocacy of risk reduction leads to behavior change.

This held true in California, where all of the five funded SSE programs chose to develop interventions that position IDU to provide peer support, guidance, and education to others. To evaluate our SSE, we asked several process questions: Are SSEs being recruited and trained? Are materials being distributed by SSEs? Are materials being received by IDU? Two outcome questions were also asked: Are SSEs changing risky behaviors? Are "out-of-reach" IDU being reached by SSEs? Our process results show that SSEs are being recruited and followed-up and are distributing more materials to IDU, that IDU recipients are being surveyed, and that peer educator activities are increasing. In addition, preliminary results show that SSEs are very similar to their IDU clients and may be more experienced IDU, but they also report reduced injection risk behaviors and are reaching "out-of-reach" IDU.

Through examining the social networks of SSEs, we have been able to determine that there is high HIV testing among all IDU. However, the diseases that IDUs are at the highest risk of acquiring, hepatitis B and C, have the lowest testing percentages. The majority of IDU access public clinics for healthcare. Over half of our IDU have been in drug treatment. More SSEs want to quit or cut down and more SSEs have tried to, but can't get treatment. The new syringe recipients that SSEs are serving that do not use SEPs also participate in higher injection risks. In short, SSEs appear to be filling a much-needed harm reduction niche with these "out-of-reach" IDU.

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### Boston's Multicultural AIDS Foundation Approach to Social Networks

*By Georgia Simpson, Deputy Director of the Multicultural AIDS Coalition, Inc. in Boston, Massachusetts*

While our primary focus for using a social networks strategy was to target interventions, it has also resulted in our gaining knowledge about the populations we targeted that we did not have prior to implementation. Hence, by design it can accomplish both a better understanding of populations and better targeting of interventions, provided that a comprehensive data collection process is incorporated.

The Multicultural AIDS Coalition (MAC) developed an approach called Health System Navigator (HSN) in 2000. It was born out of a very natural, culturally-specific concept and way of helping "my brother" or "my sister" – as defined by one's country of origin, tribal/ethnic affiliation, close or distant relation, etc. These navigators work within their social networks to identify individuals in need of services. They are not traditional outreach workers but serve as the bridge between the community most at-risk for HIV infection and the MAC.

In 2003, MAC was awarded a contract through CDC's [Advancing HIV Prevention](#) initiative. The initiative launched three demonstration programs, one of which was the Social Networks Demonstration Project (also referenced in the *Bulletin's* Social Networks introduction). MAC believed that there was a natural fit between what we knew to be an

appropriate way of engaging hard-to-reach and underserved populations and the social networks strategy outlined by CDC.

This strategy was very successful for our CDC project, where the goal was to identify individuals with undiagnosed HIV and engage them in voluntary HIV CTR services. Furthermore, because of the demonstrated effectiveness of the social network strategy, MAC initially incorporated it into its prevention and education program and later throughout all programs that had an outreach component.

To identify those who would recruit within their networks, we found that a one-on-one approach to orientation, interviewing, and recruitment was most effective. We learned through trial and error that trying to convene a group of recruiters and take them through the phase was too time consuming. Out of respect for their time and our need to have recruiters out recruiting as opposed to waiting for the next orientation, MAC developed a checklist that our program coordinator administered on an individual basis that took approximately thirty minutes to complete. The checklist was designed to ensure that the most critical aspects of the social networks approach were explained in a consistent manner to each new recruiter. This resulted in our program having the ability to have an associate completing testing and after testing, if they chose, inquire about becoming a recruiter and then going through the orientation phase in an expeditious manner, with recruiting getting underway soon thereafter.

As a result of this approach we were able to engage just over 550 individuals in HIV CTR in a 20-month period. Approximately five percent of those tested were newly diagnosed with HIV. This prevalence rate is about five times greater than the rate seen in clinic-based testing sites both locally and nationally. The value added is that the hardest to reach individuals who would not have engaged in HIV CTR were engaged, know their status, and can receive care and treatment.

In addition, we were able to develop a tremendous community asset – our Health System Navigators (HSN). HSN are individuals from the community who themselves have experienced similar challenges as individuals in our programs or individuals who are being recruited into programs are facing. Navigators are familiar with the system of HIV prevention, care, and/or treatment and have successfully maneuvered through the myriad of services. They proved to be invaluable in assisting others in doing the same. HSN truly have expert knowledge on how to reach the hardest-to-reach individuals. The results indicated above could not have been achieved without the HSN. Some have even gone on to work in other social service agencies as a result of their experience with the social networks program.

## **New Jersey's Approach to Social Networks**

*[Loretta Dutton](#), State Community Planning Group Co-chair in the Division of HIV/AIDS Services at the New Jersey Department of Health and Senior Services, responded to NASTAD's questions about social networking.*

New Jersey's approach to social networking can be described as a targeted intervention in that it has been strongly recommended for all prevention projects that provide rapid HIV testing. The intent is to reach high-risk individuals who have either never been tested for HIV or have not accessed testing/prevention activities in the recent past. Currently there are three pilot projects, one drug treatment program, one AIDS service organization, and one women's health agency.

New Jersey initially embraced social networking to serve as an alternative to traditional outreach methods that were no longer consistently effective in bringing clients to services. An analysis of client-level data collected by HIV prevention programs in the state during 2005-2006 showed that a majority (over sixty percent) of the successful referrals to prevention programs were as a result of client *word-of-mouth* recommendations. The social networking protocol operationalizes this *word-of-mouth* behavior and provides guidance for agencies not only in implementation, but also in the evaluation of effectiveness. The social networking concept seemed a viable way to tap into and formalize this existing natural resource. The concept of expanding HIV testing exponentially for those highest-at-risk, making new contacts, and testing hard-to-reach populations, was exciting to both the agencies and the New Jersey Department of Health and Senior Services. Additionally, the efficacy of social networking is well documented, training materials were available, and the potential for successful implementation was good.

The most promising social networking project has been implemented in a drug treatment facility that utilizes social networking to target hard-to-reach IDU in Atlantic City. The goal of this project is to penetrate the drug culture through newly admitted and active patients in a methadone program, specifically targeting out-of-treatment IDU. Free methadone treatment and non-monetary incentives support participation in a comprehensive HIV prevention service known as the Patient Incentive Program (PIP).

The success of this project is largely attributed to the accessibility of a large number of IDU that constantly feed the process enabling the exponential growth of the social network. Additionally, stabilized and recovering drug users experience a strong desire to assist others, which facilitates the recruitment process. Social networking capitalizes on this passion and commitment giving the recovering user a venue to "give back." In essence, the social networking we introduced re-conceptualizes "the drug culture," because the goal is to impede the spread of HIV, unlike the usual perception of "the drug culture" as one that facilitates the spread of HIV.

The two other projects previously mentioned are experiencing difficulty in engaging consumers as recruiters, in part due to the small number of participants and the associated HIV stigma. Both agencies are presently collaborating in an attempt to increase recruiters. From New Jersey's perspective implementation has been enhanced by access to large numbers of participants, the ability to work with the agencies to simplify the process and provide ongoing technical assistance, and actively acknowledging program success.

The drug treatment program has reported three major social networking results or outcomes:

- Recruitment of new-to-treatment participants, many of whom have never been tested for HIV, hepatitis C, and other STDs;
- An increased level of excitement among participants which has enhanced the treatment experience for individuals and has improved social networking outcomes; and
- Offering an alternative to traditional outreach, one that is more cost-effective and reduces the environmental risk to staff.

## **The Strengths and Weaknesses of Social Network Strategies**

*The perspectives from programs in the states we've profiled point out additional insights into how a social network approach can be used to better understand and target interventions. Overall, there appear to be some general challenges and clear strengths of this approach.*

### Challenges

CDC's demonstration project identified a couple limitations with its use of social networks as a recruitment strategy for CTR services. First, their project enlisted few recruiters who were previously unaware of their HIV status, and second, they lacked data on referral into care. And in general, the group norms and connections in any one social network are unique and cannot, in most cases, be generalized to other locations,<sup>1</sup> although the overall ways that certain types of social networks may function can be instructive to those working in similar populations/communities in other areas. Key challenges identified by our contributors include:

- Social networking requires tremendous flexibility because recruiters come and go as networks are exhausted or new ones are developed;
- Smaller agencies with very limited staff appear to be struggling with social networking;
- There is a need to have testing available when people are ready – on demand. CTR providers must be prepared for walk-ins and must keep wait time to a minimum; and
- The number of individuals testing positive through the social networks approach is much greater than that found through traditional testing approaches. Therefore the healthcare provider must be prepared for an increase in HIV positive service utilization.

Challenges can also be particular to a specific population or network. About the work in California, Starke-Livermore says, "In an elusive group such as IDU, a large majority of whom are homeless, it is difficult to fully utilize the social network approach as outlined by the CDC. However, just as with any intervention, the core elements can be adapted to the situation." She also identified other challenges for those who wish to utilize a social networks approach:

1. Recruitment of leaders/recruiters can be difficult due to false information;
2. Retention of clients beyond six months can be difficult due to absences, e.g., jail;
3. Advocating for clients suffering police harassment or discrimination in the community is necessary;
4. The success of the program can hinge on local law enforcement attitudes and local policy restrictions;
5. Poverty, mental illness, stigma, and family violence are compounding issues in SSE work;
6. Lack of standard protocols and policies across SSE program providers can be a challenge, along with data collection, and the impact on existing programs; and
7. Staff turnover presents risks for client and program success.

Similarly in its work, the MAC also identified similar, population-specific challenges, or limitations. Simpson said that social networks “may not readily apply to all populations with respect to engaging them in HIV CTR. For example, at MAC the social networks approach specific to HIV testing did not work well with engaging individuals from Sub-Saharan Africa (SSA). We believe the stigma attached to HIV testing is still too great in the SSA community and that a social network approach that prioritizes another pressing need in the SSA community could be successful with HIV incorporated as a general health concern.”

### Strengths

At the same time, social networking strategies do seem to hold great promise. With practical tools and clear goals, social networks appear to provide many opportunities to more specifically hone in on the people within various “target populations” that may have more risk for HIV, because of their connections to various networks in which HIV is present. This approach can help free up staff capacity and resources, as CDC’s CTR demonstration projects found that a social network recruitment approach that enlisted members of the social network helped free up CBO staff time for other key tasks of the intervention.

In addition, despite the fact that networks are conceptualized as bounded groups, a social network approach that employs the concept of the bridging mechanism also points out how connected the epidemic can be across various regions of the country. As Williams and his colleagues point out, “Data from this network-based study suggest that HIV epidemics should not be viewed as “local,” nor should prevention efforts. Rather, HIV epidemics and prevention efforts in one city will be influenced by the extent of HIV and prevention efforts in other cities.”<sup>2</sup>

As we build experience with social networking, other strengths emerge. As Simpson identified in the work done by Boston’s MAC:

- It is not traditional outreach and hence is an excellent tool to have as part of comprehensive client recruitment and retention approach;
- It is based on real relationships between people and not a relationship between a person and an institution;
- It is very effective at reaching the hardest to reach populations;
- It is a low-volume, high-yield approach to HIV CTR and therefore may prove to be a cost-effective approach; and
- It can be readily incorporated into other programs.

Perhaps among its most important strengths, a social networking approach appears to make more efficient use of staff time, maximize outreach efforts, and allow prevention activities to be successfully introduced into populations otherwise considered unreachable.

**“...As the analysis moves toward a more network-oriented approach—one that looks simultaneously at multiple factors and multiple interrelationships—the richness of the human interchange and its potential impact on disease transmission become more evident.” — Rothenberg, et. al.<sup>3</sup>**

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### References:

1. Mark L. Williams, John Atkinson, Alden Klovdahl, Michael Ross and Sandra Timpson, “Spatial Bridging in a Network of Drug-Using Male Sex Workers,” ppp. 35 – 42 in *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, vol. 82:no 1, Supplement 1. 2005.
  2. Ibid
  3. Rothenbenberg, et al., “Social Networks in Disease Transmission: The Colorado Springs Study,” pp. 3-19 in *NIDA Monograph 151: Social Networks, Drug Abuse and HIV Transmission*, 1995.
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### Conclusion

We hope this *Bulletin* has sparked interest in looking at reaching targeted populations in new or alternate ways. Prevention programs must strive to reach those populations at greatest risk for being infected to ensure our efforts are ultimately successful. Geo-mapping offers programs the opportunity to target programs to specific populations in geographic areas with greatest needs. Social network strategies provide programs the opportunity to see what is and what is NOT going on with specific groups. In some jurisdictions, geo-mapping and social networks are being used together. This on-the-ground innovation shows the intersection and true promise of blending technology and theory in public health practice and points out the importance of being innovative and creative to assure those at greatest risk receive maximally effective HIV/AIDS prevention messages.

We realize that these stories just scratch the surface of these two strategies and, in no way adequately cover their breadth and depth. To enrich the information we have available, we strongly encourage you, if you are already using these strategies, to share your approaches with colleagues. Sharing information and knowledge can only help to improve the effectiveness of HIV prevention programs in the U.S. If you'd like to share your successes and/or challenges, please send a message to NASTAD's [Prevention Networking Group](#).

Next month, the *HIV Prevention Bulletin* will further explore different ways for conceptualizing the HIV epidemic. The *Bulletin* will examine our approach to reaching target populations in a more holistic way through consideration of the concepts and applications of Syndemics. For more information, contact [Dave Kern](#).

## Meeting and Planning Calendar

### Capacity Building Opportunities

For a searchable database of CDC-supported capacity building trainings and events, please visit: the Capacity Building Branch's [Group Events Management System site](#).

June 5, 2007

[North Carolina Symposium on Hepatitis C](#), Durham, NC.

June 5-7, 2007

[American Correctional Health Services Association Conference](#), Reno, NV

June 7-10, 2007

[National Association of State Alcohol & Drug Abuse Directors Conference](#), Burlington, VT

June 8-9, 2007

[Hepatitis B Foundation Conference](#), Philadelphia, PA

June 27, 2007

[National HIV Testing Day](#).

June 28-29, 2007

Florida Hepatitis C Conference, Orlando, FL

August 23-26, 2007

[Staying Alive 2007](#), Cleveland, OH. National conference by and for people living with HIV/AIDS sponsored by the National Association of People With AIDS (NAPWA)

October 15, 2007

[National Latino AIDS Awareness Day](#).

November 2-6, 2007

[American Association for the Study of Liver Diseases Conference](#), Boston, MA

November 3-7, 2007

[American Public Health Association Conference](#), Washington, D.C.

November 7-10, 2007

[United States Conference on AIDS](#), Palm Springs, CA.

December 1, 2007  
World AIDS Day.

December 2-5, 2007  
[2007 National HIV Prevention Conference](#), Atlanta, GA.

December 4, 2007  
[Michigan Hepatitis C Conference](#), Plymouth, MI

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If you have an idea or program relative to any of these topics that you would like to include in the *Bulletin*, please contact [Dave Kern](#) or [Lynne Greabell](#) (202) 434-8090. The *NASTAD HIV Prevention Bulletin* is written and edited by NASTAD staff and participants of community planning and prevention efforts around the country.

LET US KNOW WHAT YOU THINK! NASTAD welcomes feedback to issues presented in our newsletter. Submit your commentary to: [NASTAD@NASTAD.org](mailto:NASTAD@NASTAD.org).

Visit our [Webpage](#)! Electronic versions of the *Bulletin* are posted along with other information on both NASTAD's prevention and care projects.

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The logo for NASTAD, featuring the word "NASTAD" in a light purple, sans-serif font. To the left of the text are three vertical dots of the same color, arranged in a column.

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