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The Role of Community Resource Assessments in the Development of 15 Adolescent Health Community-Researcher Partnerships

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Abstract

Background—Connect to Protect (C2P): Partnerships for Youth Prevention Interventions is an initiative that alters the community's structural elements to reduce youth HIV rates.

Objectives—This study details a community resource assessment and describes how resources were evaluated in the context of local needs.

Methods—Fifteen sites developed a community resource list, conducted a brief survey, created a youth service directory, and mapped where disease prevalence and community resources intersected. Sites also completed a survey to review and verify local site findings.

Results—On average, sites identified 267 potential community resources. Sites narrowed their resource list to conduct a brief survey with 1,162 agencies; the site average was 78. Final products of this process included maps comparing resources with risk data.

Conclusions—The evaluation of local resources is an important initial step in partnership development and is essential for the success of health promotion and disease prevention interventions that target adolescents.

Keywords

HIV/AIDS; community health partnerships; community-based participatory research; community health research; adolescent health services; health promotion

Although a substantial number of adolescents continue to become infected and live with HIV¹, U.S. adolescent HIV prevention approaches mainly focus on reducing individual risk through small group, multiple session interventions.^{2–4} Some researchers suggest broadening the focus of U.S. HIV prevention strategies to include structural interventions, which have shown potential for reducing HIV risk internationally.^{4–6} C2P: Partnerships for Youth Prevention Interventions, an initiative of the Adolescent Medicine Trials Network for HIV/AIDS Interventions (ATN), is a community–researcher partnership being implemented at 15 clinic research sites nationally and focused on modifying a community's structural elements, environmental features that usually reside outside of individual control, to ultimately lead to decreased rates of HIV among adolescents.

One way of facilitating structural change is by employing a community mobilization methodology, the approach used by C2P. Community mobilization has been used successfully in other adolescent health arenas such as substance use,^{7,8} but remains

underutilized in HIV prevention. Community mobilization occurs when communities organize multisectorial efforts like joining resources or creating common goals around the development or implementation of a prevention effort or public health program.^{9,10} This paper describes how community resources were identified and evaluated in the context of disease and risk rates, especially HIV and sexually transmitted infection (STI) incidence and prevalence, to assist communities in developing a collaborative structural change agenda.

METHODS

Connect to Protect: A Community–Researcher Partnership Focused on Structural Change

The ATN is a multicenter collaborative network funded by the National Institutes of Health to conduct biological, behavioral, and clinical research in HIV-infected and HIV-at-risk adolescents, ages 12 to 24 years. Fifteen sites based at a variety of medical and public health research institutions were funded to implement this research agenda. These sites are located throughout the United States, with seven in the Northeast, three in the West, and five in the South; urban populations range from 152,397 to 3,694,820 (Table 1).

Because developing multisector collaborations¹¹ and successful relationships between researchers and the community¹² is a critical challenge in structural interventions, C2P sites took 2 years to develop community partnerships based on the recognized key principles of community-based participatory research (CBPR)¹³ and to conduct planning activities to lay a strong foundation for a collaborative research agenda. Each site developed a community–researcher partnership that focused on modifying intermediate-structural determinants such as programs, practices and policies that are logically linked to HIV acquisition among youth. Modifying intermediate-structural determinants entails creating or changing programs, practices and policies that effect the availability of resources, physical structures in the environment, organizational structures, and laws or policies.^{6,7} In the case of the HIV epidemic, these intermediate-structural determinants may be more feasible to alter than the macrostructures like poverty and gender inequality that fuel the spread of disease.^{6,14–16}

The planning activities, like the community resource assessment described in this article, assisted the partnership in developing their collaboration and creating a strategic plan that identifies intermediate-structural determinants to be modified. The theoretical model used by this study was an adaptation of Anderson and May's model for transmission dynamics of HIV infection^{17–20} and described in detail along with the study's methodology and infrastructure, by Ziff et al.²¹ Straub et al.²² describe how community–researcher partnerships were initiated and developed during this data collection process.²² This research was reviewed and approved by Institutional Review Boards at all 15 local sites and determined to be exempt.

Community Resource Assessment

The community resource assessment followed a three pronged approach including a comprehensive resource list, brief survey and geospatial mapping.

Comprehensive Resource List—To identify organizations of interest, sites obtained existing directories and contacted, at a minimum, the following: local health departments, local universities/research centers, AIDS administrations, associations, nonprofit organizations, other organizations that provide services (e.g., shelters), planning coalitions and councils, and key informants. Additionally, staff read local newspapers and conducted Internet searches to find directories or to learn of additional organizations. The catchment area covered the site's entire city, with the understanding that sites would need to focus on more specific geographical areas based on epidemiologic risk data for community

mobilization activities. Sites included community entities that play a role in combating the HIV/AIDS problem in adolescents and young adults by providing sexual health-related services. In addition, these organizations may offer assistance such as leadership development, training, shelter, or food to youth populations at high risk for infection. These entities were the focus of the list because they provide the majority of HIV/AIDS-related individual-level services and would be ideal potential partners to mobilize around structural changes to reduce HIV/AIDS rates, which is C2P's research focus. Additionally, for the purposes of this manuscript, sites were sent an e-mail survey to review and verify local site findings and capture additional qualitative information on how sites narrowed their comprehensive resource list and the facilitators and barriers encountered.

Brief Survey—From the comprehensive resource list, each site conducted brief surveys with 75 to 125 individuals who represented agencies that provide services to adolescents and/or young adults in the highest risk areas of the city, as evidenced by the epidemiologic profile. Based on the University of Kansas's Community Toolbox,²³ templates were designed by the ATN's National Coordinating Center (NCC). The NCC provides technical assistance and ensures protocol fidelity across this multicenter project. Consisting of questions about mission, populations served, types of services provided, and areas of service provision, this seven-page survey was designed to collect information regarding the availability of community services, as well as assist the sites in determining which organizations were potentially ready to develop partnerships focused on HIV prevention for at-risk youth. The brief survey was conducted either in person or by phone, for organizations with whom a significant relationship existed or was desired, or by U.S. mail, fax, or e-mail for self-administration, with the organization's executive director or appointed staff member. Data from the brief survey, especially its role in partnership formation activities, was described further by Straub et al.²⁵ This paper describes how the brief survey was used to lay the foundation of the partnership's community mobilization activities by providing data for the youth service directory and for geospatial mapping as described in this paper.

Youth Services Directory—Sites utilized the comprehensive resource list and the brief survey data to create a youth services guide for their community. Sites included a city map organized by neighborhoods and zip codes to orient users to agency locations. The first half of the directory was organized into sections according to service categories provided by each agency. Within each service category, the agencies were organized by neighborhoods in chart format that was consistent with the city map. The chart provided an agency snapshot, including the population served, language of service provision, and a page number for the each agency listing. The second portion of the directory included an alphabetical agency listing. Sites were encouraged to localize their directory based on community partner feedback. The directories were made available to the community in print and online (see www.atnonline.org).

Geospatial Mapping—Based on the brief survey, each site downloaded relevant community resource information such as the nearest cross streets and organization types into MapInfo, the geomapping program used for developing the initial epidemiologic profile. The locations of the identified community resources were plotted to the nearest cross street and local community maps were generated. In addition, the community resource maps were superimposed on the relevant risk data maps. This article reports on how these data were used for the partnership's strategic planning process. At the completion of the 4-year study, intervention communities will be compared to demographically similar nonintervention communities within the site's urban areas to see if the intervention communities had a greater reduction in public health surveillance indicators like new HIV and STI cases compared with nonintervention ones.²⁴

RESULTS

Comprehensive Resource List

Results for the comprehensive resource list indicated that all sites used existing directories ($n = 15$) and three fourths ($n = 11$) found additional information through networking with community-based organizations (CBOs), coalitions, and health care providers. Some sites also augmented this information with on-line directories, website searches, newspapers, and driving through the local neighborhood for a visual assessment. On average, sites identified 267 potential community resources that ranged from a low of 53 resources to a high of 440 resources (data not shown). In a follow-up survey with sites, staff stated that when considering this initial list, 9 of 15 sites categorized CBOs as the most important type of agency to include on their initial list for the resource directory and to be ultimately considered for partnering. This was followed closely by other service providing organizations, then by local health departments.

Brief Surveys

A total of 1,162 resources were identified across the 15 sites. The site average was 78 assets with a range of 30 to 109 agencies (Table 2). The majority of agencies identified were CBOs (65.5%). Health (19.2%) and mental health (20.7%) care were organization types frequently reported. Government agencies (12.5%), cultural and social agencies (11.7%), faith-based (9.0%), coalitions (3.2%), and planning councils (2.3%) were also reported. There were a small number of additional agency types that included private businesses such as restaurants and funeral homes, funding agencies, community development corporations, and advocacy/activist organizations. In addition, five sites included only CBOs that resided in or provided services to their geographic area of focus. Three sites either included CBOs referred to by other agencies, considered only the types of services provided by the agency, or did not narrow their list because it was already considered manageable. Sites that chose to narrow their list ($n = 12$) reduced on average 46% of the resources from the original comprehensive list.

The brief surveys were completed by either the executive director (25%) or another agency representative (75%) including a deputy director or program coordinator. These brief surveys were conducted by fax (26%), phone (20%), e-mail (13%), mail (4%), other (8%), and in person (26%).

Geospatial Mapping

Figure 1 depicts how local resources in a community were matched to areas of critical need. The map depicts the geographic area of focus (black box) for C2P: Tampa Bay. This catchment area has a higher percentage of the population living below the poverty line during 2000 (left map) and higher chlamydia rates per 1,000 for black, white, and Latino youth (top right map) from 1998 through 2000 compared with other community locations. Although this area may be in need based on risk data, there are also many community resources available locally to assist vulnerable youth. For example, this same geographic area of focus has 21 youth agencies, 7 primary medical centers, 11 basic needs agencies, 1 case management organization, and 1 hotline (bottom right map).

DISCUSSION

Prevention strategies that concentrate on structural elements have the potential to not only affect many individuals simultaneously, but also to increase its sustainability in the long term.²⁴ Because community and environmental change interventions often require both a multisectoral and multiple level (e.g., social networks, families, organizations) focused

approach,²⁵ the C2P's 15 community–researcher partnerships utilized a planning activity, a community resource assessment, to determine the structural foundation of local areas to aid the community's strategic planning process.

Gathering Resources: Describing Neighborhood Services and the Youth Service Directory

Although C2P's data indicates that there was some variability in the amount of local resources identified in the comprehensive resource list (range, 53 to 440 resources), all sites were able to identify a sufficient number of local resources to administer a brief survey (site average, 78) and collect information to successfully develop partnerships,²² create a comprehensive youth directory, and strategically plan their community mobilization efforts with the assistance of geospatial mapping. Structured approaches like the one described in this research have been used successfully to assess community features in other community-level prevention research.⁷ Describing neighborhood resources before starting a community-level intervention like C2P is essential because the availability of community-based services can also be an indicator of resource commitment beyond the nearby locality.²⁶ For example, a public health clinic could provide a myriad of care and prevention services to a community based on a funding mix of government grants, state contracts, and so on. Because organizations are considered mediating structures, linking the individual to larger ones (i.e., health care system, society), the individual and the community are interdependent.^{27–30} Many sites used these planning activities as an opportunity to begin developing relationships that could lead to partnerships with community organizations. This approach gave some sites invaluable background and insight into how local organizations are organized (e.g., operation, mission) as well as how they function in the community. The youth directory was considered an intermediate, usable product from the community resource assessment that could be delivered immediately back to the community during the initiation of community mobilization activities.³¹ Although the production of the youth directory was considered integral to CBPR process, it was not a focus of C2P's ultimate research plan to reduce HIV/AIDS rates by structural changes; therefore, information was not collected by sites on its utility.

Matching Resources With Needs: The Mapping Process

The final step in the community asset assessment process was to provide a visual depiction of disease epidemiology and community resources. Geospatial mapping tools like the ones used in this study can effectively link contextual information to individuals to provide special patterns of health outcome data.^{26,32} In C2P's case, sites paid particular attention to not only showing what are commonly perceived as negative health outcomes at the community level, such as HIV and STI rates, but also where the community's resources were distributed in relation to these epidemiologic data. The stereotyping of urban environments as an “inner city” consisting only of complex serious problems is a barrier to public health promotion and planning.³³ Instead, C2P's focus was the determination of local resources that were readily available in these areas of greatest need to include in community mobilization efforts. By showing the community where the need is, in this case high HIV and STI rates, and what local resources it has to mobilize to solve the problem, the community can devise its own structural strategies (e.g., a clinic needs to offer alternative hours for adolescents or a community organization needs a new prevention program) to ensure that its environment is supporting the reduction of HIV and STI rates. Currently, the 15 community–researcher partnerships are implementing these structural change agendas in their urban areas.

Limitations

There are several study limitations. Because sites generated the comprehensive resource list from a convenience sample and gave preference to agencies that work on HIV/AIDS and

youth issues for brief interviews, generalizability is limited. Despite the structured interview templates that were developed, community agencies have specific methods of data collection that are often dependent on the availability of staff and grant reporting guidelines; this lead to inconsistencies in reporting across sites. Additionally, finding the appropriate individuals in the agency to answer questions and access data was time consuming for the participating agency and required intensive follow-up for site staff, which could have resulted in response bias. Last, the brief survey was designed to collect information on an agency's mission, populations served, types of services provided, and areas of service provision. This survey did not collect information regarding the cost or quality of the services that could impact youth's access to these services or the utilization of the youth service directory once it was disseminated. When completing the surveys with community agencies, sites were challenged by the slow initial response rate, agency staff members turnover, and fluctuation of services provided due to funding changes. To overcome barriers, site staff relied on a number of different strategies to facilitate survey completion including networking, face-to-face meetings, website review to cross-check and supplement data, and persistent follow-up. For this article, sites were also queried via an e-mail survey to clarify their methodologic process, which may be subject to recall bias; a substantial amount of time had transpired from the original data collection period.

CONCLUSIONS

C2P, a community–researcher partnership whose mission is to modify a community's structural elements to decrease HIV rates among U.S. adolescents, began this process by determining the structural foundations of the participating communities nationally. Because community involvement is vital for the success of many partnerships and coalitions, an important place to begin public health approaches is to identify and evaluate local resources or the community's "fertile ground." As public health approaches continue to build on the strengths of communities to solve complex social problems, the determination of the resource availability is essential to harnessing the strengths of an urban environment, its diversity, physical assets, and human resources.

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Figure 1. An Example of Matching Community Needs with Resources

Chlamydia data was public use information provided by the Florida Health Department.

Accessed on November 29, 2005. http://www.doh.state.fl.us/disease_ctrl/std/trends/florida

Percent below poverty data was public use information provided by the 2000 U.S. Census.

Accessed on November 29, 2005. <http://www.census.gov/main/www/cen2000.html>

Table 1

City Profiles of Connect to Protect's Sites

Site	Location	City Size ¹	Ethnicity/Race ¹				Youth ¹ 10-24 y (%)	AIDS/STD Rates	
			Black (%)	Other ² (%)	White (%)	Hispanic (%)		City AIDS ³ (Rate)	Gonorrhea ⁴ (Rate) ⁵
1	Northeast	651,154	64	2	32	2	22	39	603
2	Northeast	1,332,650	36	29	30	48	23	59	169
3	West	3,694,820	11	37	47	46	22	26	89
4	Northeast	1,517,550	43	10	45	8	22	25	384
5	Northeast	572,059	60	7	31	8	21	33	439
6	Northeast	589,141	25	16	54	14	25	11	197
7	Northeast	2,896,016	37	18	42	26	22	18	393
8	South	152,397	29	3	64	10	16	40	— ⁶
9	South	362,470	22	6	67	66	19	46	82
10	South	484,674	67	28	28	3	24	33	612
11	Northeast	1,537,195	17	24	54	27	17	59	169
12	South	434,374	12	10	73	98	22	34	13
13	West	1,223,400	8	27	60	25	22	18	69
14	West	776,733	8	38	50	14	16	45	237
15	South	303,447	26	7	64	19	21	22	156

¹ US Census Bureau. American FactFinder [cited 28 June 2005]. Available from: <http://factfinder.census.gov>.

² Other category includes Asian, American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, and "some other race" categories.

³ Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report, 2003 (Vol. 15). Atlanta: US Department of Health and Human Services, Center for Disease Control and Prevention, 2004, p. 29-30. Also available from: www.cdc.gov/hiv/stats/hasrlink.htm.

⁴ Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2003. Atlanta, GA: U.S. Department of Health and Human Services; 2004, p. 102.

⁵ Rate per 100,000 population.

⁶ City Data not included in report.

Frequencies and Percentages of Agencies and Community-Based Organizations Completing the Brief Survey in 15 Urban Communities

Table 2

Site	Health	Mental	Government	COB	Council	Coalition	Faith Based	Cultural/ Social	Total
1	8	13	17	64	4	7	8	25	80
2	19	20	4	79	5	6	7	13	109
3	16	19	3	45	1	1	5	10	67
4	17	17	11	24	1	1	2	2	48
5	8	9	0	26	1	0	3	2	30
6	19	19	8	65	4	8	9	25	78
7	13	13	2	62	0	1	4	6	81
8	10	22	13	48	0	4	12	4	102
9	13	13	18	52	2	5	7	3	101
10	10	8	12	48	3	1	12	2	88
11	31	35	6	49	0	6	3	7	81
12	15	6	24	41	1	0	13	1	75
13	14	16	4	62	1	2	3	10	82
14	26	22	14	55	1	2	6	17	85
15	4	9	9	41	3	4	10	9	55
Total	223	241	145	761	27	48	104	136	1162
Average									
Number	14.9	16.1	9.7	50.7	1.8	3.2	6.9	9.1	77.5
Percent	19.2	20.7	12.5	65.5	2.3	4.1	9.0	11.7	—

Note. For organization type: Health, medical health care; Mental, mental health care; Government, local government agency; CBO, community-based organization; Council, planning council; Coalition, coalition; Faith-Based, faith-based/spiritual institution; Cultural/Social, cultural/social institution; Total, number of total community resources. Because organization categories were not mutually exclusive, the total amounts do not equal the summed categories within a row.