

# THE AHALAYA CASE-MANAGEMENT PROGRAM FOR HIV-INFECTED AMERICAN INDIANS, ALASKA NATIVES, AND NATIVE HAWAIIANS: QUANTITATIVE AND QUALITATIVE EVALUATION OF IMPACTS

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*Abstract: The Ahalaya case management model was designed to provide culturally sensitive services to HIV-positive American Indians (AI), Alaska Natives (AN), and Native Hawaiians (NH). This program started in 1991 and expanded across the country in 1994. The evaluation plan included a client satisfaction survey, along with focus groups and key informant interviews. Of the 389 active clients enrolled, 132 responded to the anonymous 35-item questionnaire. Responses were favorable regarding benefits of the programs. Self-reported quality of life changes after enrollment also were significantly improved (Wilcoxon Signed Rank Test:  $T=6.87$ ,  $p=.000$ ;  $n=131$ ). Qualitative data highlighted other important issues. Social relationships—with staff, community, and family—were critical to client welfare, as a source of both strength and fear. While AI/AN/NH case management programs have been shown effective, services need to expand, and they have to facilitate resolutions to problems in clients' social relationships.*

The emergence of HIV/AIDS among American Indians, Alaska Natives, and Native Hawaiians (AI/AN/NHs) has had a profound effect on communities, seen not only in the greater numbers of HIV infections and AIDS cases (Centers for Disease Control and Prevention, 1998; Hawai'i Department of Health, 1998; Stevens & Estrada, 2000) but also in the allocation of resources. Case management is but one component of the entire suite of activities directed toward prevention, education, care, and research services, but it is vital in its role as the primary entryway and advocate for client services.

Case management is pervasive in the health and social service industries, but there is little consensus about definition (e.g., Baldwin & Woods, 1994; Centers for Disease Control and Prevention 1997; Graham & Birchmore-Timney, 1990; Piette, Fleishman, Mor, & Dill, 1990). Services are highly varied and appear to reflect the core of programs (i.e., medical, mental health, substance abuse, or social, etc.), the locus (e.g., the services linked to and managed by a program), and the source of funding, among others (e.g., Piette, Thompson, Fleishman, & Mor, 1993). Given this variability, it might be best to understand case management as "...the provision for some greater continuity of care through periodic contact between case manager(s) and the client that provides greater (or longer) coordination and brokerage of services than the client could be expected to obtain without case management" (Orwin, Sonnefeld, Garrison-Mogren, & Smith, 1994, p. 154).

HIV/AIDS case management specific to AI/AN/NH populations is confronted by a unique set of circumstances. This subpopulation is characterized by the over-representation of problems found to describe the population as a whole. Data from the 1990 U.S. Census (1993) depict an AI/AN population that has a lower life expectancy than the general population, higher rates of poverty and unemployment, and lower rates of educational attainment. Most AI/ANs live in urban areas (56.2%), while much smaller proportions reside in rural, non-reservation locations and on reservations (D'Angelo, 1996; Snipp, 1996; U.S. Census 1993). Access to health care through the Indian Health Service (IHS) is limited by the Service's role as a provider of "last resort" and its restriction to reservation-based populations within the thirty-three "reservation states." Even in some of these communities estimates suggest that less than half of eligible AI/ANs use these services (Burhansstipanov & Dresser, 1993). Urban populations experience even more extreme conditions, receiving less than 1.2% of the IHS annual budget to support a network of 34 urban clinics (Indian Health Service, 1997). Native Hawaiians exhibit similar patterns, with greater rates of poverty and low income, higher mortality rates, and lower rates of educational attainment in the lower and higher grade levels, among others (U.S. Census, 1992).

Case management clients exhibit these same traits and are subject to these same discrepancies, but all at notably higher levels. Compounding these conditions are cultural, historical, and ethnic differences that keep many AI/AN/NH clients from engaging mainstream service programs (Lockart, 1981). These barriers, in fact, constitute major problems for AI/AN/NH clients and impede their ability and desire to seek services. These circumstances, when superimposed on an HIV infection, have demanded Native-specific case management to overcome many of the barriers to care encountered by these individuals (Barney & Duran, 1997).

### The Ahalaya HIV/AIDS Case Management Model

The *Ahalaya* case management program was designed on a model developed and evaluated by AIDS Arms of Dallas (Piette et al., 1993). This free-standing community-based agency functions as an independent entity, free from any direct affiliations with medical or other service providers. Hospital-based case managers typically have greater access to entitlements, and free-standing case managers have better access to the clients (Indyk, Belville, Lachapelle, Gordon, & Dewart, 1993). The latter type of case management service is better able to address the very broad diversity of needs found among AI/AN/NH HIV/AIDS clients.

The *Ahalaya* case management model incorporates the basic structure of the AIDS Arms project (Piette et al., 1993), and expands its utility through the incorporation of Native-specific elements (Barney & Duran, 1997; Bellymule, 1992; Bellymule & Geren, 1993). The model possesses two principal structures, the *linkage framework* and *case management procedures*. The framework consolidates access to medical, mental health, spiritual, social, emergency, and educational services. Case managers establish affiliations with other care-giver agencies and access those services as needed by clients. Unique to the *Ahalaya* model is a foundation built on cultural, spiritual, and traditional healing dimensions. These characteristics offer clients greater support and access to information than afforded by non-Native programs. In addition, this same cultural/spiritual paradigm is made available to the wider community, and particularly to non-Native care-givers, through training programs administered by case-management staff.

Case management procedures prescribe a plan by which case managers interact with clients. Case managers conduct client assessments, work with clients to develop care plans, make and follow-up on referrals to other service providers, monitor client compliance with referrals and related activities, and advocate for clients in their relationships with other agencies and providers. *Ahalaya* case managers also provide or facilitate access to traditional/cultural services. One of the more important elements of the *Ahalaya* model is the flexibility to work with clients in virtually any setting, allowing the case manager to maximize access to the clients.

The *Ahalaya* program was started in 1991 in Oklahoma City and Tucson by the National Native American AIDS Prevention Center (NNAAPC), and supported by funding from the Special Populations of National Significance (SPNS) office of the Health Resources and Services Administration (HRSA). The model was formalized and implemented, and in 1992, SPNS requested that NNAAPC replicate the model in sites across the country. Financial support was sufficient to expand the program to 12 additional sites in 1993 to implement the case management model. In 1997, a new cycle of SPNS monies required the reduction in the number of sites supported to a total of nine.

One important component of the *Ahalaya* program was the collection of data from all clients enrolled in services. The resulting database included a suite of intake information and a more limited collection of follow-up data. Client satisfaction surveys also were used, as well as focus groups and individual semi-structured interviews. These data constitute the foundation of the evaluation plan, the results of which have been used to inform ongoing model development.

## Methods

### Participants

The National Native American HIV/AIDS Client Database includes intake data for all clients enrolled in the case management program. Currently, over 600 individuals have been documented, but at the time when the satisfaction surveys were initiated (June, 1996), 402 persons were identified in the database.

The 402 individuals recorded in the database were diverse in terms of documented traits, but as a single cohort they exhibited the following profiles (Table 1; also see Rowell & Bouey, 1997). Males comprised 81.3% ( $n=327$ ) of the total, and females 18.7% ( $n=75$ ). Average age was 33.7 years. Seventy-two American Indian tribes were represented among 81.0% of the total client population, in addition to Alaska Natives (3.5%), Native Hawaiians (14.5%), and other indigenous groups (0.7%). General health status was documented as excellent among 9.2% of clients, good among 37.9%, fair among 35.4%, and poor among 17.5%.

Identified risk categories were dominated by men having sex with men, and followed at less than half that number by heterosexual contact and other risk factors (Table 1). The general male pattern is similar to that exhibited in the Centers for Disease Control and Prevention (CDC) AIDS Surveillance data (Centers for Disease Control and Prevention, 1998; Stevens & Estrada, 2000), although some of the values differ (e.g., heterosexual). Female data are inversely related to the CDC data, since the latter document injecting drug use (IDU) contacts as a larger proportion of the total than heterosexual contacts (Centers for Disease Control, 1998; also see Stevens & Estrada, 2000).

At enrollment into case management services, HIV/AIDS status was identified as asymptomatic HIV among 33.6% of clients, symptomatic HIV among 27.3%, and AIDS among 39.1% (Table 2). Clients having a history of mental health problems accounted for 23.0% of the total, whereas those undergoing treatment currently or within the previous year represented 28.5%. Alcohol abuse history was identified among 61.6% of the client base, and drug abuse among 49.6%. Homelessness history was noted by 26.8% of clients.

Satisfaction Survey forms were sent to all active clients ( $n=389$ ), and 132 (33.9%) of those individuals returned their forms. Respondent profiles exhibited some variation with that of the entire database population. According to the variables that were common to both databases, gender distributions were similar ( $\chi^2=2.513$ ,  $df=1$ ;  $p=0.113$ ), whereas ethnicity ( $\chi^2=15.094$ ,  $df=3$ ;  $p=0.002$ ) and transmission ( $\chi^2=34.314$ ,  $df=5$ ;  $p=0.000$ ) categories were different (Table 1). Possible bias introduced by these differences would appear to be minimal, however, since response patterns were so robust.

Seventy-four percent ( $n=97$ ) of Satisfaction Survey respondents were male, and 26% ( $n=34$ ) were female. The average age of all participants was 34.3 years (Table 1). American Indian ethnicity accounted for 67.7% of the respondents, Alaska Native for 3.1%, Native Hawaiian for 25.2%, and other indigenous for 3.9%. Respondents were distributed across HIV risk categories at slightly different levels than found in the entire client population (Table 1). The general pattern, dominated by men having sex with men, remained constant; only the proportions varied moderately between the two samples. Health status was documented as excellent among 9.3% of respondents, good among 50.4%, fair among 29.5%, and poor among 10.9% (Table 1). Residence in urban areas was identified by 64.0% of respondents, rural areas by 29.7%, and reservation by 6.3% (Table 3). Employment status was dominated by unemployed with 77.5% of clients, while part-time status accounted for 10.1% and full-time for 12.4% (Table 3).

## Design and Procedures

Data collected for the National Native American HIV/AIDS Client Database was obtained when a client first enrolled into case management services. These data, as well as more extensive histories and current needs information, were recorded by a case manager. This material was used to design specific case management plans and to assist the clients with their various issues. Only a small fraction of the data collected are submitted to the main NNAAPC office, all others remaining in confidential client files.

Satisfaction Survey forms, with addressed return envelopes, were given to all active clients between June and August 1996 (Barney, 1996). Respondents were asked to complete the surveys at their own convenience and send the forms to the main NNAAPC office. Surveys were anonymous and unlinked. The instrument included 35 questions, ranging from simple demographic queries to questions regarding client perceptions of services received. In the perceptions section of the survey, clients were asked to rate their level of agreement with several statements. The response scale was broken into seven categories, ranging from "strongly agree" to "strongly disagree," "neutral" occupying the central position.

Table 1  
Frequency Distributions of Client Characteristics Common to the  
National Native American HIV/AIDS Client Database (NNAH/ACD) and  
to the Client Satisfaction Survey (CSS)

	NNAH/ACD		CSS	
Mean age ( <i>SD</i> )	33.7 (8.8)		34.3 (8.9)	
Ethnicity				
American Indian	326	(81.0%)	86	(67.7%)
Alaska Native	14	(3.5%)	4	(3.1%)
Native Hawaiian	58	(14.5%)	32	(25.2%)
Other Indigenous	3	(0.7%)	5	(3.9%)
Health Status				
Excellent health	37	(9.2%)	12	(9.3%)
Good health	152	(37.9%)	65	(50.4%)
Fair health	142	(35.4%)	38	(29.5%)
Poor health	70	(17.5%)	14	(10.9%)
HIV Risk Category	Male	Female	Male	Female
MSM	206 (63.0%)		54 (55.7%)	
IDU	43 (13.1%)	22 (29.3%)	8 (8.2%)	4 (11.8%)
MSM/IDU	30 (9.2%)		6 (6.2%)	
Heterosexual	31 (9.5%)	41 (54.7%)	7 (7.2%)	23 (67.6%)
Hemophilia	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Transfusion	4 (1.2%)	2 (2.7%)	4 (4.1%)	1 (2.9%)
Maternal	2 (0.6%)	6 (8.0%)	0 (0.0%)	0 (0.0%)
Unknown	10 (3.1%)	4 (5.3%)	18 (18.6%)	6 (17.6%)

Analyses were based on consolidated measures of "agreement" and "disagreement" (Table 4). Respondent proportions to each question are described according to a combined category of "agreement," that is, "strongly agree," "agree," and "somewhat agree" are aggregated into a single proportion to characterize this pool of clients. "Disagreement" includes responses for "strongly disagree," "disagree," and "somewhat disagree." "Neutral" responses constitute a separate category. A final pair of questions asked how well the client thought he/she was doing at two separate points of time: before they entered the case management program, and within the four weeks previous to their completing the survey (and logically, while they have been enrolled in case management services). Clients were given five

Table 2  
Frequency Distribution of Client Characteristics Unique to the National  
Native American HIV/AIDS Client Database

HIV/AIDS Status		
Asymptomatic HIV	134 (33.6%)	
Symptomatic HIV	109 (27.3%)	
AIDS	156 (39.1%)	
	Yes	No
Current Mental Health Treatment (Currently or within last year)	113 (28.5%)	283 (71.5%)
History of		
Mental Illness	91 (23.0%)	304 (77.0%)
Alcohol Abuse	241 (61.6%)	150 (38.4%)
Drug Abuse	191 (49.6%)	194 (50.4%)
Homelessness	103 (26.8%)	281 (73.2%)

Table 3  
Frequency Distributions of Client Characteristics Unique to the Client  
Satisfaction Survey

Residence	
Urban	82 (64.0%)
Rural	38 (29.7%)
Reservation	8 (6.3%)
Employment	
Full-time	16 (12.4%)
Part-time	13 (10.1%)
Unemployed	100 (77.5%)

Table 4  
Frequency Distributions of Questions Regarding Care Management  
Services Received in the Client Satisfaction Survey

Question	Response			
	Agree	Neutral	Disagree	Not Appl
Helped by case management programs	119 (92.2%)	7 (5.4%)	3 (2.3%)	
Glad to have services from programs	122 (93.2%)	5 (3.8%)	4 (3.1%)	
Reduced stress	101 (78.9%)	17 (13.3%)	10 (7.8%)	
Not as sad	108 (83.1%)	19 (14.6%)	3 (2.3%)	
Benefited from traditional healers	81 (65.9%)	29 (23.6%)	13(10.6%)	
Liked affiliation of program	120 (92.3%)	7 (5.4%)	3 (2.3%)	
Program better because of affiliation	108 (83.1%)	18 (13.8%)	4 (3.1%)	
Learned about prevention strategies	112 (86.9%)	14 (10.9%)	3 (2.3%)	
Reduced alcohol consumption	55 (67.9%)	15 (18.5%)	11(13.6%)	[49]
Reduced drug use	52 (74.4%)	12 (17.1%)	6 (8.6%)	[59]
Assistance with family issues	76 (73.1%)	21 (20.2%)	7 (6.7%)	[26]
Assistance finding a home	43 (60.5%)	16 (22.5%)	12(16.9%)	[58]
Assistance making appointments	70 (82.3%)	11 (12.9%)	4 (4.7%)	[45]
Assistance getting medication	72 (79.1%)	10 (11.0%)	9 (9.9%)	[40]
Liked support groups	71 (76.4%)	19 (20.4%)	3 (3.2%)	[36]
	Yes	No	Not Sure	
Program made life better	114 (87.7%)	4 (3.1%)	12 (9.2%)	
Want to learn more about prevention	80 (61.5%)	50 (38.5%)		
Quality of Life (How are things going?)	Good	Neutral	Bad	
Before enrollment	24 (18.3%)	61 (46.6%)	46(35.1%)	
Last four weeks (after enrollment)	79 (60.3%)	39 (29.8%)	13 (9.9%)	

Note: Not Appl=Not Applicable.



possible responses. These categories were scored, a “5” used to designate the most positive response and a “1” the most negative. Scores were totaled for the entire sample and the before results evaluated against the after. The Wilcoxon Signed Rank test was used to ascertain the significance of the difference between the two scores. Clients also had the opportunity to submit any other comments they thought appropriate in this context.

In contrast to the quantitative instrument—used in this evaluation with a relatively limited goal—qualitative techniques were utilized to obtain a more complete illustration of this population and their perceptions. These methods offer an opportunity to supplement the survey data, and more significantly, to gain more insight into issues of particular relevance to the clients. Four focus groups—two with staff and two with clients—and 18 key informant interviews were conducted by NNAAPC personnel in January and February, 1996. Both methods employed semi-structured strategies, and facilitators and interviewers employed written guides to perform this work. All discussions were taped and transcribed, and the transcriptions were coded and evaluated subsequently.

## Results

### Satisfaction Survey – Quantitative Data

Survey forms continued to arrive until March 1997. By this date, 132 surveys (33.9% of the total) had been received. Frequencies and proportions received varied by site (Table 5), and appeared to be related to the initiative taken by the case manager when encouraging clients to respond.

Overall responses to the case management project were very positive (Table 4). Respondents agreed they had been helped by these programs (92.2%), and they were glad to have received these services (93.2%). Respondents also felt that they experienced reductions in stress (78.9%), alcohol consumption (67.9% of applicable responses), drug use (74.4% of applicable), and sadness (83.1%). These clients also felt that they received assistance when dealing with families (73.1% of applicable), finding a home (60.5% of applicable), making appointments (82.3% of applicable), and getting medications (79.1% of applicable).

Respondents also liked the AI/AN/NH affiliation of these projects (92.3%), and most thought the programs were better due to this connection (83.1%). A significant proportion also liked having access to traditional healers (65.9%) and support groups (76.4% of applicable). Respondents acknowledged that they learned about prevention strategies from these projects (86.9%), and many expressed an interest in learning more (61.5%). Overall, respondents felt that the program made their lives better (87.7%).

Table 5  
Client Satisfaction Survey Response Rates by Case Management Site

Site	Responses (n=132)	Distributed (n=389)	Percent Responding
1&2 <sup>a</sup>	25	101	24.8
3	6	32	9.4
4	2	7	28.6
5	5	43	11.6
6	3	9	33.3
7	16	31	51.6
8	7	32	21.9
9	11	21	52.4
10&11 <sup>a</sup>	40	69	58.0
12	3	11	27.3
13	14	33	42.4

<sup>a</sup>Two sites, one project

Questions regarding quality of life pertained to periods of time before and after participation in the case management programs. These two questions were scaled according to five possible answers about how life has been going in the recent past; the scale ranged from “very well” to “very bad,” with “about equal” in the central position. Employing only positive responses, a favorable quality of life *before enrollment* was documented by 18.3% of respondents, while favorable quality of life *after enrollment* was noted by 60.3%. A Wilcoxon Signed Rank Test was run on these responses, after they had been scored. Results supported the proposition that clients believed that their quality of life was improved after they had enrolled in the case management programs ( $T=6.87$ ,  $p=.000$ ).

#### Focus Groups and Interviews – Qualitative Data

In contrast to the quantitative data, qualitative discussions elicited responses concerning what clients believed were program aspects that facilitated or encumbered their acquisition of care and support. Discussions supported the positive responses identified in the quantitative instrument, and conversely, they also allowed information that was not as flattering. Some of these issues pertained to the case management programs, but more significantly, clients pointed to linked service programs, communities, and families.

Clients offered statements regarding the improvements in their lives, particularly in the form of increased self-esteem and lessened stress and sadness. Through participation in these programs, clients also noted they had obtained more information regarding HIV and treatment options, they received greater emotional support, and they improved their access to food and housing services. Clients expressed appreciation for the range of services offered through these programs (especially social services), and identified program personnel for whom they had great respect and admiration. They also acknowledged the value of the AI/AN/NH affiliation of these case management programs and of community support. Community, in this instance, refers to those individuals who work at or use the services of these programs.

Simultaneously, a few clients thought they should have received more information, particularly HIV prevention related, and social support through these programs. They noted that some case management sites were too limited in the range of services offered. Personnel at some locations also were described as difficult to work with or not sufficiently supportive of the clients. Clients noted that some staff were obviously uncomfortable working with homosexual clients, resulting in poorer quality, and sometimes no services. Case managers validated many of these personnel issues, although they also noted that some clients were very difficult and problematic. The threat of staff burnout was an ongoing problem, as was the need for staff support systems.

Beyond the case management sites, clients identified a variety of issues pertaining to linked services. They noted for different settings a lack of quality medical services, inadequate social services, no HIV testing programs or prevention information, and most significantly, the insufficiency of transportation services. Transportation was cited several times by both clients and staff, emphasizing the prominence of this issue for nearly all program participants. Clients described problems in urban areas when clients lacked cars and money for public transit, and they also cited poor public transit systems. On a larger scale, some clients also spoke to the complete absence of transportation systems in rural areas. Receiving rides from other individuals was helpful, although problems in confidentiality sometimes arose when the driver discovered that the client was HIV-infected.

Personnel issues at other agencies were complicated when staff were perceived as incompetent or a threat to a client's confidentiality. The latter was most serious when service agencies were located in community settings where a client was a community member. This type of community is the home context of a client, different than the organizational community cited above. Clients and case management staff further noted the poor quality of medical care and the lack of support for pharmaceutical supplies at some clinics. Clients also felt that clinic staff sometimes obstructed the

clients when staff did not assist them as they worked their way through the system.

In many cases, negative comments regarding medical care were directed against the local Indian Health Service facilities. Clients and case managers expressed tremendous frustration with some of these clinics, even citing specific instances of overt ill-treatment by providers and staff. Although these types of comments were prevalent, they were not unanimous. Some responses focused on the high quality of services received by clients at some IHS facilities, both rural and urban, and described efforts at those locations to improve the quality and expand the knowledge of agency providers.

Clients also spoke to behavioral patterns that they perceived as detrimental to their own management of their disease. Foremost among these problems were substance use and violence. Substance use, especially alcohol, was identified as a factor leading to primary infection, as well as facilitating secondary infections. Alcohol use was described as pervasive in many of these communities, and a cause for great concern in the realm of HIV/AIDS. Violence, both domestic and community, was viewed in a similar light. Although not as directly related to the risk of HIV infection as substance use, violence was seen to reflect various community ills, that in the composite worked to increase HIV risks. Issues underlying substance use and violence in the community are key to understanding many of these problems, but opportunities to explore these factors in greater depth were not afforded by the interview and focus group agendas.

Clients and case managers regularly referred to “community” in their discussions. Although there was no effort to define the concept specifically, most comments were directed toward their home settings. What was most prominent in these remarks were the cognizance of community as relevant to an individual’s well-being and of the general absence of community support in the case of the HIV-infected. Some home locations were described as supporting infected individuals and the work against the epidemic, but the trend was generally more negative. Community denial of the problem was identified in several settings, one extreme of which was the ostracism experienced by some individuals. Client fears around these types of responses underlie their concerns with confidentiality, an especially significant problem in the smaller community settings. The concept of family paralleled that of community. The diversity of responses about family were comparable to those of community, but even more critical in the sense that family support was seen as even more fundamental. Clients described a variety of family responses, and the most salient were those in which families rejected the client. Consequently, clients told about hiding their HIV status from their own families and their fear of losing their most important support network.

## Discussion

Data from both quantitative and qualitative contexts support the conclusion that the *Ahalaya* model is successful in its objective to provide high quality case management services to AI/AN/NH peoples. Quantitative patterns offer a compelling argument regarding project success. Responses to program attributes were consistently favorable, and the quality of life measure supported the assertion that utilization of case management services contributed to the improvements in clients' lives. One might argue that factors other than the programs were responsible for these client perceptions. While such a comment is true in principle, the data—both quantitative and qualitative—suggest that the case management services played a significant role in the improvement of clients' lives.

Focus group and interview discussions buttressed the survey results, describing programs as fundamentally of good quality. Conversely, these same discussions allowed for the expression of various types of discontent and the identification of numerous options for improvement. Salient themes in the qualitative data reflected the complexities and difficulties of client and provider lives outside the direct purview of the case management programs. Most prominent among these was the encompassing domain of social relationships, with three primary components: staff, community, and family. Case management, as well as other agency staff were recognized as primary gatekeepers to and providers of care. Clients were dependent on these individuals for a wide variety of services and support, and consequently the quality of their relationships was very important. Any encounters with difficulties or incompetence in those persons threatened the integrity of those interactions, and consequently, the security of the client's support network.

Communities were viewed similarly, in that they were seen as a primary means of support and emotional care. The complete absence of support—or worse, the overt rejection of an HIV-infected individual—created great instability and disorientation among clients. In situations where individuals regularly received community validation, the loss and isolation resulting from formal or informal rejection can be devastating. Relationships with families are even more intensive. The positive attributes of family acceptance and support outweigh many other negative experiences, and logically, the loss of a supportive family would have more severe and negative consequences.

Clients and case managers acknowledge the critical importance of relationships, and in a similar vein, the fears and frustrations they express are based on the same issues. Behavioral decisions are considered in the context of relationships, and if an individual experiences some weakness in that network, they are more likely to compromise their abilities to make their best decisions. Compounding problems associated with the domain of social relationships are the issues of substance abuse and violence. These specific

concerns also reflect, at least to some extent, the same relationships with community, family, and self. This particular data collection venue was not designed to explore these topics in greater depth, but it was evident that the patterns were repeated in many different settings. These circumstances demand a more intensive and comprehensive response than that used in this evaluation.

Results indicate that in general terms providers, services, communities, agencies, and the clients themselves erect barriers to completely successful care. Simultaneously, these are the same venues within which the resolutions must arise. The simple presence of a Native HIV program is a necessary response to this need, but it is not sufficient on its own. Case management programs must also increase their quality and professionalism, and they must work to manifest more completely the collaborative efforts of individual and community participants.

These evaluation results have been used to reflect on the progress made in model implementation, and they have been incorporated into ongoing model development. Currently, the *Ahalaya* model has been expanded to integrate substance abuse treatment, prison outreach, and provider training as formal program components, adjusted to the immediate needs of each program site. Underlying these activities, as well as those ongoing, is the effort to work more effectively to improve clients' support networks, to enhance the quality and strength of their social relationships. In addition, the evaluation itself has gone through a major revision, with the intent of monitoring client progress more accurately and closely, and of tracking service utilization and needs in greater detail. This strategy is to enhance the capacity of this model, such that improved care and more accurate monitoring will lead to wider and more enduring improvements in the quality of life for AI/AN/NH infected and affected by HIV.

Limitations on the generalizability of these data need to be highlighted as well. The relatively small sample size of respondents to the Client Satisfaction Survey and the inherent bias expected when using this type of survey technique compromise the strength of these interpretations. These two factors are related, particularly in the possibility that clients who did respond were those who felt most strongly about the surveyed issues. In addition, use of only two questions, one of which was retrospective, for the quality of life scale also represents a complicating factor. These potential problems are being addressed in the new evaluation program. At this time, however, these data are the *only* information available regarding services for HIV-infected AI/AN/NHs. As such, these data are the initial building blocks from which we can design improved service programs and improved analytical capacity.

On the basis of this work it is clear that various populations have special needs that must be integrated into programs if we are to achieve higher levels of quality client care in a more universal venue. Also salient is that evaluation procedures are critical. These measures permit monitoring

of ongoing program development and implementation, and more relevantly, the collection of information vital to the future evolution of such services.

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