

Update Report #32



Housing Services and Housing Stability among Persons Living with HIV/AIDS

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C.H.A.I.N. REPORT

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I. Introduction

By any number of indicators, housing continues to be the single largest area of unmet need for people living with HIV in New York City. Many persons lack stable housing when they are diagnosed with HIV. Others who start with adequate living arrangements may face housing crises as their economic or medical needs change. Among CHAIN study participants, a broadly representative sample of HIV positive individuals receiving agency based care, approximately 60% have experienced at least one episode of homelessness or unstable or inadequate housing during the study period (1994 to 1999). Prior reports show that individuals with housing problems have access to services, most are utilizing services, and eventually, most see their housing difficulties resolved. However, some individuals who secure adequate housing after a period of instability return to homelessness within a short period of time (CHAIN Update Report #16, 1998a; CHAIN Update Report #5, 1997b).

The purpose of this report is to examine the relationship between housing assistance and housing stability. We begin with an investigation of patterns of housing instability among persons living with HIV in New York City. We next consider the role of housing services and supportive services such as case management, mental health and substance abuse services in contributing to housing success. Once clients find housing, how long do they maintain it, and do these patterns differ by types of services received? We will also consider client satisfaction and dissatisfactions with different types of housing services they have received.

II. KEY FINDINGS

- **Housing instability and the need for housing services is widespread among persons living with HIV/AIDS in New York City.** About 60% of the CHAIN cohort has experienced homelessness or unstable housing at least once during the study period (1995-1999). At any point in time, an estimated 20 - 25% of all PLWHs in NYC are unstably housed.
- **Housing needs are fluid.** At each wave of interviewing, about two-thirds of respondents report continuity of stable living arrangements over the 6 - 9 month period since the previous interview. The remainder have moved into and out of unstable arrangements.
- **About one-quarter of formerly homeless persons who secure housing return to homelessness or precarious situations within six months after initial housing placement.**
- **Housing services make a difference.** Accessing agency based housing services improves one's chance of securing stable, adequate housing and once housed, housing services reduce the risk of losing housing. The need for services does not end with placement.
- **Supportive services, namely case management, mental health and/or drug treatment services are as important as housing services as such in securing and successfully maintaining stable housing.** Many persons with housing difficulties have multiple problems including substance abuse and mental illness interweaved together and requiring a comprehensive support services approach to ensure housing stability.
- Nonetheless, **the strongest predictor of obtaining housing and of staying in housing once**

placed is receipt of rental subsidy. Sharply rising rents in New York City and limited or declining wages and benefits will entrap not only the multiply diagnosed but the hale and hearty among the unstably housed.

- Findings of this research strongly suggest that **ongoing supportive services are needed along with housing placement and rental assistance to decrease housing instability** among persons living with HIV in New York City. Particularly needed are substance abuse and mental health services.
- It would seem that proposals to separate supportive services from housing services understood as strictly the provision of shelter or vouchers or payment for shelter are ill advised.

III. BACKGROUND AND METHODOLOGY

A. The CHAIN survey and data

The Columbia School of Public Health is responsible for conducting the CHAIN Project surveys and reporting on findings from the survey data in collaboration with the New York City Department of Health and Medical and Health Research Association of New York City, Inc (MHRA). The purpose of the study is to provide longitudinal information on study participants' needs for health and human services, their use of health care and social service organizations, their satisfaction with services, and the impact of these services on physical, mental and social well being. This information is specifically prepared for the NYC HIV Health and Human Services Planning Council to assess the full spectrum of services for HIV infected persons in NYC. The study was undertaken through a subcontract from MHRA with the authorization of the NYC Department of Health and the HIV Planning Council.

The CHAIN Project followed a recruitment procedure designed to yield a broadly representative sample of people living with HIV in New York City. Study recruitment was conducted in 43 agencies that were selected so that there would be roughly equal numbers of medical care and social service sites and representation from sites that were and were not recipients of Title I grants. At 30 sites, staff contacted a random sample of clients. The names of clients who indicated an interest in participating were turned over to CHAIN staff for interviews. A sequential enrollment procedure was implemented at the remaining 13 agencies. All eligible clients present on a small number of recruitment days were invited by agency providers and CHAIN staff to participate in the CHAIN study. Interviews were then scheduled with interested clients. A total of 648 individuals recruited from participating agencies completed baseline interviews. The agency-based sample was supplemented with 50 interviews conducted with HIV+ individuals with little or no connection to medical and social services. These individuals were contacted at outreach sites and through nominations from CHAIN participants. More detailed information on sampling strategy and recruitment may be obtained upon request from MHRA (CHAIN Technical Report #1, 1995).

Subsequent interviews were conducted at approximately six to nine month intervals. Round two interviews were completed with 568 participants, 92 % of the cohort still alive and not known to have moved outside of New York City. Round three interviews were conducted with 480 of CHAIN participants, 88% of the cohort who was alive and still residing in New York City. Round four interviews were conducted with 420 CHAIN participants or 82 % of the surviving cohort. In

an effort to replenish the CHAIN sample which had lost a number of participants to death and other factors, in 1998, an additional 267 individuals were added to the study, using the same agency and community sources. These individuals constituted the “refresher” sample and joined the 385 CHAIN continuing participants who have been involved in the project since its inception in 1994, bringing the total number of people interviewed in round five to 652. In round six, slightly over 500 study participants were interviewed, 80% of those eligible. Of these, 495 respondents had data prepared for analysis by the time of this report. This report will examine patterns of housing instability among all CHAIN study participants. For the analysis of the role of housing services for housing success, we will focus on the subset of client who had experienced at least one episode of homelessness or housing instability.

All CHAIN interviews are conducted in person by interviewers recruited from communities throughout New York City and trained specifically for the study. Interviewers are matched to respondents as much as possible with regard to gender and race/ethnicity. Approximately one-third of the field staff are themselves HIV positive. Interview topics include sociodemographic characteristics, the full range of experiences with access and use of medical and social services, and quality of life. At each round of interviews participants are asked about their current living situation, their recent history of housing instability, and whether or not they have had any housing problems or need for assistance with housing issues. Information was also obtained about rental assistance, housing placement or other housing services received.

B. Measuring Homelessness/ Housing Instability

We ask respondents about their current living arrangements and experience with recent history (any time during the 6 months prior to interview) of unstable or inadequate housing. Persons who describe themselves as homeless, or sleeping on the street, in a shelter, in an SRO or welfare hotel, or in an abandoned building, a public or private place (e.g. subway station) not intended for sleeping will be considered “unstably housed.” Also included are individuals currently in jail, a halfway house, or drug treatment housing with no other address, or those temporarily doubled up with friends or family in someone else’s home. This definition follows closely the definition of homelessness adopted by the Housing Workgroup of the NYC HIV Planning Council and includes not only clients who are literally homeless but also those who are precariously housed, who lack a stable, secure, permanent living situation they can comfortably maintain. As the HRSA Bureau of Primary Care has emphasized, recognition of the instability of an individual’s living arrangement is crucial to the definition of homelessness (HRSA, 1999)¹.

¹ In 1997 the Housing Workgroup put forth a definition of homelessness, based on the McKinney Act: A homeless person is defined as an individual who lacks a fixed, regular and adequate night-time residence; and whose primary nighttime residence is a shelter, an institution that provides temporary residence for individuals intended to be institutionalized, or public or private place not designated for or ordinarily used as a regular sleeping accommodation. Individuals who are at imminent risk of losing their housing because they are being evicted from their residence or are being discharged from institutions and have nowhere else to go are also considered to be homeless. According to the Workgroup, those who are currently incarcerated are not defined as being homeless. CHAIN includes individuals who are being held in city jails if they have no other place to live. Individuals who are serving prison terms outside of New York City are ineligible for the study due to residence beyond the five boroughs.

Patterns of Housing Instability

Trends among all clients interviewed. Table 1 shows the percent of all respondents interviewed at each study time who were homeless or unstably housed. At the first interview, in 1994-95, we asked about housing instability in the past 6-12 months and found that more than one-third (37%) of all respondents interviewed reported experience of homelessness or housing instability. For subsequent interviews, we have restricted the question to past 6 months. The rate of recent (past 6 month) homelessness/ unstable housing is approximately 25% for each of the following four study periods, including Time 5 when additional participants were added to the study to reflect individuals more recently diagnosed with HIV. At the most recent round of interviewing (1998-99), the rate of housing instability appears to have dropped; however we still find that approximately one in five (19%) of all CHAIN study participants reported sleeping on the streets, in a shelter, in an SRO or welfare hotel, in jail, or drug treatment facility with no other address, or temporarily doubled-up with others at some point in the six months prior to interview.

Moving into and out of unstable housing. Charting the percentage of all interviewed respondents who report housing instability cannot tell us whether the same individuals continue to be precariously housed, or whether different individuals move in and out of unstable living situations. The lower portion of Table 1 shows the overall pattern of movement into and out of homelessness or instability. For this analysis, we compared housing status at one round of interviewing with respondents' housing status at the prior interview. Beginning at Time 3 (1996-97), the pattern remains relatively stable. Approximately two-thirds (66% to 69%) of all persons interviewed were in stable living situations and had been stably housed at the prior interview as well (continuous stable housing). Another 11% to 14% were individuals who had obtained housing after a period of homelessness or housing instability (changed their housing status from unstable to stable), most often with the assistance of a housing service provider. About the same proportion at each interview period (9% to 12%) remained unstably housed since the time they were previously interviewed 6 - 9 months earlier.

As the bottom section of Table 1 also shows, there are also individuals who lose their housing. Although the rate was lower at the most recent round of interviewing, approximately 10% of the entire sample were adequately housed at one interview and when recontacted had lost their housing or were in a temporary or precarious situation. People living with HIV can find themselves unstably housed for a variety of reasons. Some lack housing when they are diagnosed with HIV, especially as the epidemic increasingly affects disproportionately those who were poor, precariously housed, and with few social supports prior to HIV infection. But even those who start with sustainable living arrangements may face housing challenges as their medical and financial situations change. Among the continuing cohort, the majority of the CHAIN sample (58%) had at least one episode of housing instability during the five years under study (data not shown). Two-thirds of these have had multiple episodes. Prior CHAIN reports have also documented the fluidity of living arrangements among the HIV positive population in New York, both into as well as out of unstable situations (CHAIN Update Report #5, 1997).

Table 1. Patterns of Housing Stability and Instability

	Time 1 10/94- 6/95	Time 2 7/95-2/96	Time 3 3/96- 10/97	Time 4 11/97- 6/98	Time 5 11/97- 6/98	Time 6 10/98- 8/99
<i>Total Sample</i>	(n=700)	(n=568)	(n=480)	(n=420)	(n=652)	(n=495)
Percent Unstable Housing¹	37%	24%	25%	23%	25%	19%
Change in Housing Status since last interview²:						
Continuous stable housing	na	57%	67%	66%	66%	69%
Unstable to stable housing		20%	11%	11%	14%	13%
Continuous unstable housing		15%	12%	11%	9%	12%
Stable to unstable housing		8%	10%	11%	11%	7%

1. Rate of unstable housing among all clients interviewed at each study period.

2. Based on cross-sectional analysis of all interviews completed at each study period for which two successive interviews are available. Time 5 percentages based on continuing cohort only (n=385).

Length of housing stability. Table 2 follows up on the subset of CHAIN study respondents who were homeless or unstably housed at baseline interview and for whom we have complete over-time data (n=109). At the time of their second interview, 6 - 9 months after baseline, the majority of them (57%) had gotten housing; however a substantial proportion were still unstably housed (43%). Among those who did get housing, we were able to track the length of time they were successful in maintaining housing. We found that about half lost their housing in less than two years. That is, they were unstably housed, obtained housing, but then were homeless or unstably housed again. As Table 2 shows, only one-third maintained stable housing for three years or more. One-quarter of the formerly homeless who got housing were unstably housed again within 12 months of taking up residence. Following the same individuals over time, the mean length of housing stability for the formerly homeless is 25.5 months (Table 2). When we consider all episodes of moving out of homelessness or housing instability reported by CHAIN study participants across all waves of data, including multiple episodes experienced by the same individual, the average length of maintaining stable housing is approximately 18 months (data not shown).

Table 2. Length of Housing Stability Among CHAIN Study Participants with Unstable Housing at Baseline Interview

Among those Unstable at Baseline Interview	(n=109)
Stable Housing at T2 Interview	57%
Continuing Housing Instability T2	43%
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Length of Housing Stability among Those Who Got Stable Housing by T2 Interview	(n=63)
Less than 12 months	25%
12 - 23 Months	14%
24 - 35 Months	29%
36+ Months	32%
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Mean (sd) length of housing stability	25.5 (14.0) months

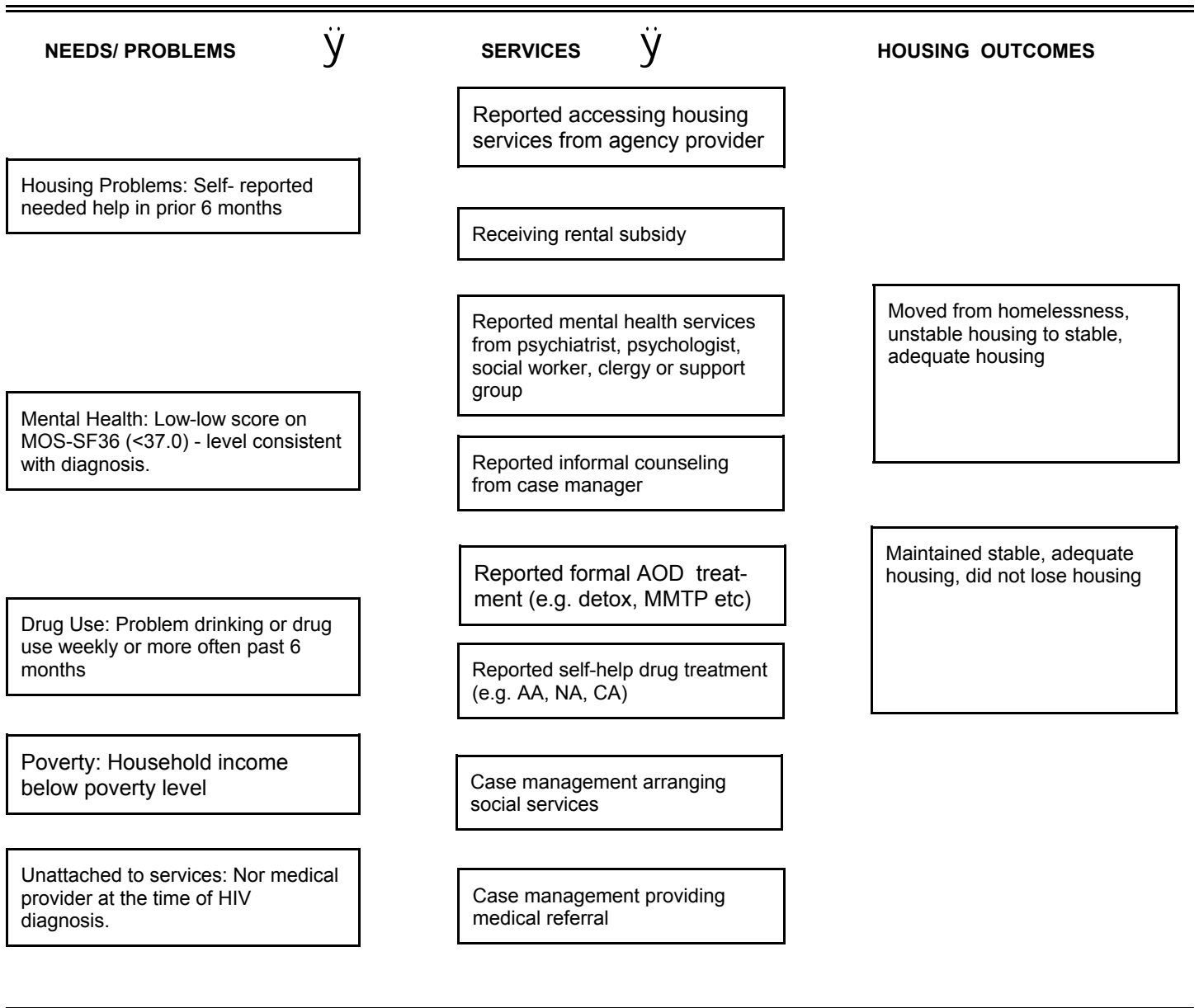
1. Based on T1-T6 continuing cohort only - respondents interviewed at every study period.

Housing Services and Resolution of Housing Instability

Analytical approach. Next we examine the role of services as they contribute to the resolution of housing instability. Among people who are homeless or unstably housed, are those who receive housing services more likely to obtain stable housing than individuals who do not receive housing services? What is the role of supportive services, in particular, case management, mental health and/or drug treatment services in moving people from unstable to stable and adequate housing? We will focus on the role of these services since our prior analyses (CHAIN Update #5, 1997; CHAIN Briefing Paper #1, 1999), as well as other reports (see e.g. Conviser, 1997; Bonuck & Drucker, 1998.) have found that multiple social service needs, mental illness, and/or active substance abuse complicate the lives of many HIV positive persons struggling with housing issues.

We have used a number of approaches to answering questions about the relationship between housing stability and housing and support services. For the first set of analyses, we applied statistical procedures that combined the survey data from all five rounds of interviews between 1994 and 1998. We include all persons who are part of the continuing cohort and who had one or more periods of housing instability during the study period (n=162). Our analysis measured whether the use of housing and/or other services increased the chances that a person who was homeless or unstably housed at one interview would be stably housed by the next interview. Figure 1 presents the general model we tested and the indicator variables used in the analysis.

Figure 1. Model Predicting Housing Outcomes: Service Needs and Services Received



We included as service needs self-reported housing problems, low mental health functioning, drug use, poverty, and being unattached to HIV services. Although the entire analysis examines the movement from unstable to stable housing, we include a separate measure of “self-reported housing problems” that goes beyond housing status and includes subjective experience of a range of housing difficulties including inability to pay rent, poor housing conditions, administrative problems with subsidy, etc - problems likely to complicate housing success. The services we examined were 1) housing services, measured as self-report accessing of assistance with housing problems from an agency provider and 2) a separate measure of receipt of rental subsidy; 3) mental health services provided by mental health professional, a specially trained social worker, clergy or a support group and 4) a separate measure of receipt of informal counseling from one’s case manager; 5) drug treatment services, both professional or therapeutic services and 6) peer led, self help treatment groups (AA, NA, CA); 7) case management oriented to arranging social services and 8) case management that arranged medical services. We also controlled for other factors that could affect housing situation: gender, race/ethnicity, and stage of illness. This allows us to assess, for example, the impact of housing and support services on housing outcomes among all individuals with similar t-cell counts.

We used this same general approach to measure whether the use of housing and support services increased the chances that individuals who had moved from unstable to stable housing would remain in stable housing at the next round of interviews. Odds ratio is the statistic we use to measure the impact of a service on the outcome studied (e.g. getting housing). Odds ratios greater than one indicate that the service is associated with an increase in getting housing or maintaining housing. Odds ratios of less than one indicate factors that decrease the chance of leaving unstable living situations.

From unstable to stable housing. We examined a number of models that included all the variables described in Figure 1. Statistical procedures allowed us to choose the “best fit” which is presented in Table 3 and the graphic below. In all models, self-reported housing problems, low mental health scores, and being a frequent drug user decreased the odds of homeless or unstably housed persons obtaining housing by the next interview. *Income below poverty level and being unattached to services at the time of HIV diagnosis was not consistently associated with continued homelessness, once the other variables in the model were controlled for.* Poor people who remain poor but get rental subsidies have the same increased odds of housing placement as higher income people.

We found that services make a difference. An individual who was homeless at one interview who received rental assistance at that time was over 1.6 times as likely to have obtained stable housing by the next interview as individuals who did not receive this service. Likewise, individuals who received mental health services were also 1.6 times likely to get housing as those with no mental health care. Getting housing services separate from rental assistance also increased the odds of moving from unstable housing (1.4 times as likely), although the increase is not statistically significant. Other analyses indicate that the impact of housing services varies by type of service received, a distinction we are unable to make in the present analysis but which will be addressed in the next section of the report. In the model tested, formal drug treatment did not increase the odds that homeless individuals will secure housing within 6-9 months. However, we expect this is due to the fact that all types of treatment including short term detox are included here, treatments that

Figure 2. Increasing the Odds of Obtaining Stable Housing

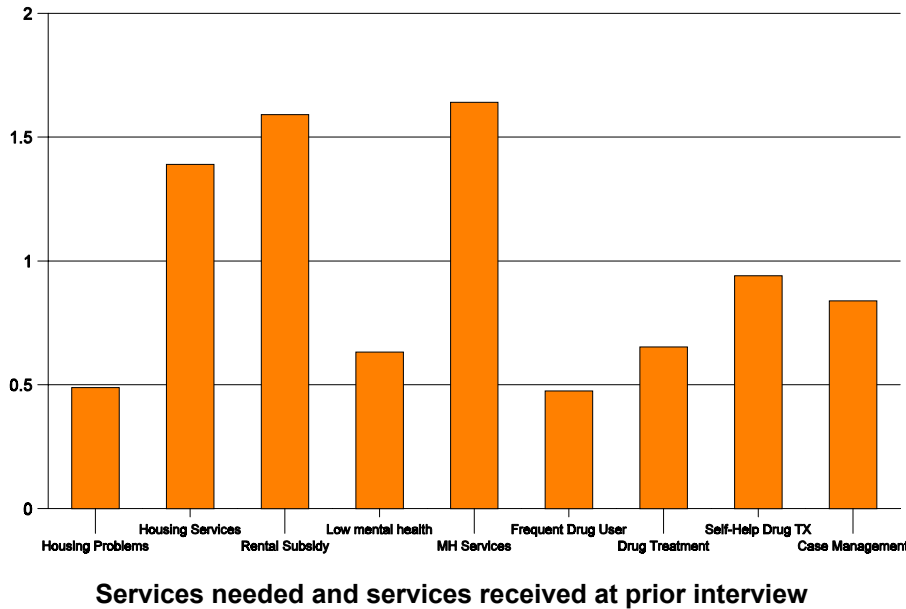


Table 3 . Longitudinal Odds Ratios of Relationship between Housing and Support Services and Housing Stability, CHAIN data 1995-1998

	Moved from Unstable to Stable Housing
<i>Service Needs & Services Received</i>	<i>Entry into Stable Housing</i>
Self-report housing problems at prior interview	0.489 **
Received housing services at prior interview	1.390
Received rental subsidy at prior interview	1.591 *
Low mental health score at prior interview	0.632 *
Received mental health services prior interview	1.641 **
Frequent drug user past six months	0.475 **
Received drug treatment services at prior interview	0.653 *
Self-help drug treatment at prior interview	0.974
Received case management services at prior interview	0.839

* $p \leq .10$

** $p \leq .05$

Note: Numbers above 1.0 indicate factors that increase the likelihood of moving from unstable to stable housing, and numbers below 1.0 show factors that decrease the odds of obtaining stable housing, controlling for all the other variables in the model.

may not adequately address underlying risks for homelessness among drug users². Case management services did not increase the odds of getting housing, once the other factors in the model were controlled for. Individual client characteristics including gender, race/ethnicity, or stage of HIV disease did not affect the relationship between service needs, services received, and securing stable housing.

We tested alternative models of service utilization and housing success to determine whether contemporaneous or prior services are more efficacious in resolving housing instability. We found that persons who receive a service at the prior interview are more likely to obtain housing than persons who have more recently accessed the service (data not shown). This is consistent with prior analyses that have shown that housing problems are seldom quickly resolved; the length of time an individual and/or service provider has been working on solving housing issues is itself a predictor of problem resolution (CHAIN Update # 5, 1997b).

Maintaining stable housing.

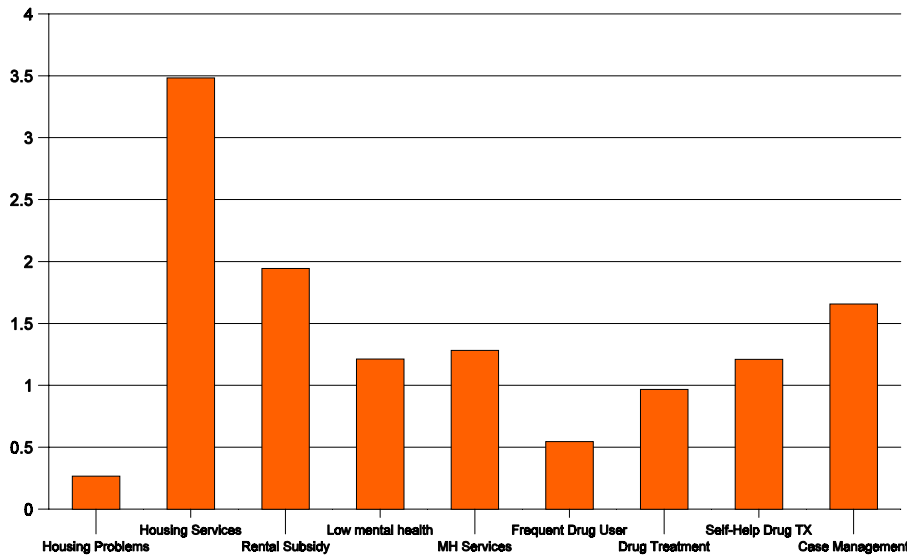
We conducted a similar series of analyses to examine the extent to which the same set of service needs and services received affected the likelihood that a formerly homeless person who received housing would maintain that housing over time. The results of this analysis are presented in Table 4 and the corresponding graphic. This analysis takes the subset of CHAIN study participants who were homeless or unstably housed at any time during the study period but who subsequently got housing. It asks the question: what influences the likelihood that an individual will maintain stable housing after a period of instability? As before, we tested a number of different models with all of the variables listed in Figure 1 and used statistical tests to determine the one that is the “best fit” for the data.

As we can see from Table 4, individuals who self-report housing problems at one interview are very unlikely (odds ratio below 1.0) to maintain their housing; they are likely to have lost their housing by the next interview (6-9 months later). Since the sample for this analysis included only individuals who were in housing at the first assessment time, this indicates that client self-perception of problems precedes and predicts housing loss. However, accessing housing services, perhaps in response to a problem or impending problem (e.g. rent arrears), contributes to maintaining stable housing among the formerly homeless. Individuals who receive housing services, controlling for all the other variables in the model, are three and one-half times as likely than those who do not get any housing services to stay in their housing at least past the next interview (6-9 months later).

Given the prevalence of continued economic stress and clinical co-morbidities among the formerly homeless (CHAIN 1998a; HUD 1999), it is not surprising that having a case manager also facilitates staying in housing once a person is placed. Individuals who receive rental subsidies are also more likely to continue in their housing, about twice as likely as persons who do not receive rental support. Drug treatment, measured as a simple yes/no variable, is not associated with staying in housing. We also tested whether receiving any type of drug treatment both at prior interview and at current interview would be a significant predictor of continuously maintaining housing. It was not (data not shown). On the other hand, other analyses suggest that there are specific types of drug

² Small sample size prohibits separating out different types of alcohol and drug treatment programs. Insufficient information was collected in earlier years of the research to allow us to distinguish among different types of housing services (referral assistance, placement in housing, tenant advocacy, etc)

Figure 3. Increasing the Odds of Maintaining Stable Housing



Services needed and services received at prior interview

Table 4. Longitudinal Odds Ratios of Relationship between Housing and Support Services and Maintaining Stable Housing for Previously Homeless Persons. CHAIN data 1995-1998

	Maintained Stable Housing
<i>Service Needs & Services Received</i>	<i>Did not leave Stable Housing</i>
Self-report housing problems at prior interview	0.266 ***
Received housing services at prior interview	3.483 ***
Received rental subsidy at prior interview	1.944 *
Low mental health score at prior interview	1.212
Received mental health services prior interview	1.283
Frequent drug user past six months	0.546
Received drug treatment services at prior interview	0.968
Self-help drug treatment at prior interview	1.212
Received case management services at prior interview	1.657*

* $p \leq .10$

** $p \leq .05$

Note: Numbers above 1.0 indicate factors that increase the likelihood of maintaining stable housing, and numbers below 1.0 show factors that decrease the odds of maintaining stable housing, controlling for all the other variables in the model.

treatment that are associated with housing success, particularly supportive services that continue overtime (see discussion below).

Different Housing Service Models

We were limited in the prior analyses to examining the role of housing services broadly defined as they affect housing stability and housing success. In the earlier phases of the CHAIN study, sufficiently detailed housing information necessary to operationalize different models of housing service delivery was not collected. Beginning with the Time 5 interviews, we are able to refine our analysis of housing services. Clients are classified as to the types of housing services they have received based on the description of their current living situation and whether or not the unit receives a rental subsidy. Respondents in apartments are further asked whether their unit is part of a scatter-site program, and SRO residents were asked about the existence of on-site support services. The content of service encounters with housing providers is recorded. Respondent reports are corroborated whenever possible. The addresses of all individuals who answered that they lived in “AIDS” housing were checked to determine if whether or not it was a congregate facility. The description “scatter site apartment” was checked against a listing of agencies with contracts to provide this type of assistance.

Housing Service Utilization. Table 5 shows how many CHAIN study participants have utilized housing services or have received assistance with housing problems from programs employing various housing models. The vast majority of all clients interviewed have had the benefit of some type of housing services; only 33% report no housing services at all currently or during the six months prior to T5 interview. Fourteen percent of the sample currently live in some type of housing supported by AIDS services funding; 8% live in congregate or other AIDS designated housing, and 7% live in a scatter site apartment. An additional 5% live in an SRO that at the time of the study (1998) had supportive services for HIV/AIDS residents. About one-third of the sample are receiving rental assistance through DAS but are not living in AIDS supported housing. An additional 8% receives rental assistance through other sources, primarily New York City Human Resources Administration (HRA) general public assistance programs, or federally funded programs administered by the City such as Section 8. Finally, 8% of respondents interviewed reported receiving housing placement assistance in the six months prior to interview..

The next set of analyses will examine the relationship between these different types of housing services as they facilitate individuals with a history of homelessness or housing instability moving to safe, adequate, permanent housing and seeing their housing problems resolved. We begin by examining the relationship between receiving housing and/or support services at Time 5 interview and a person’s being in stable or unstable housing at the next (Time 6) interview, conducted 9 months to a year later (see Tables 6 and 7). Next we will include all the variables in a series of models as we attempt to isolate the impact of specific housing services, or constellations of support services as they affect housing success. The case base for these analyses will be the sub-set of CHAIN study participants who have been homeless or unstably housed at any time during the study period (Time1 to Time5) and for whom we have complete over time data (n=215). This becomes our “risk set” - a group who is more at risk for housing loss than others in the sample, and a set of individuals much more similar to the target populations of AIDS housing providers. It is more revealing to restrict analyses of the role of services for client outcomes to those persons likely to need and or benefit from the service, rather than assume that all clients would benefit equally.

Table 5: Utilization of Housing Services- Time 5 Interviews

Total Sample (n=)	644	100%
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TYPE OF HOUSING SERVICES REPORTED³

Lives in congregate or other AIDS housing	50	8%
Lives in scatter site apartment	43	7%
Lives in SRO with support services	31	5%
Receives rental assistance: DAS	210	32%
Receives rental assistance: Other	50	8%
Has received referral or placement assistance	49	8%
No housing services past six months	211	33%

1. Hierarchical coding - respondent living in scatter site apartment, SRO with support services or other AIDS housing may also be receiving rental assistance and may have received referral or placement assistance in the six months prior to interview.

Housing services Among the 215 CHAIN study participants who had had some prior episode of homeless or housing instability, 29% were unstably housed at the time of the Time 6 interview. This includes individuals who lost their housing between Time 5 and Time 6 interviews as well as individuals who were without stable housing for a longer period. Receiving housing services at the prior time of interview does reduce the likelihood of ending up without adequate stable place to live. Among people with a history of homelessness, 23% who had any type of housing service at Time5 were unstably housed 9-12 months later at Time 6 compared to 34% of those who had no housing services. When we break it down to specific types of services received, we see lowest rates of subsequent instability for those who were actually housed by an HIV/AIDS program such as those residing in scatter site apartments or congregate facilities. However, we also see the benefits of rental subsidy as a deterrent to homeless. Only 13% of persons who received rental subsidy and no other housing services were unstably housed at re-interview. This compares to a high of 66% of PLWHs receiving services as part of programs providing support services to SROs⁴

When we consider continuity of housing service we see further evidence that housing problems are seldom resolved quickly. Individuals who were just beginning to access housing services (T 6 only) have double the rate of housing instability (52%) than their counterparts who have been receiving services over a longer period of time (23-28%). Receipt of rental subsidy also shows the impact of continuous services. Among the formerly homeless receiving rental subsidy continuously from Time 5 to Time 6 interviews, only 18% were unstably housed, compared to 39% who got rental assistance at Time 5 only or 43% of those who just began to receive help with paying rent.

⁴ Although the practice of providing onsite case managers and other personnel for HIV/AIDS clients living in commercial SROs has been discontinued, there were such programs in existence when the CHAIN interviews were being completed. Services are now provided at some hotels by outreach teams who visit but do not have offices onsite.

The findings regarding case management and housing outcomes are difficult to interpret with the data at hand. As Table 5 shows, we did not find any statistically significant differences between receiving case management at Time 5 and housing loss or retention at subsequent interview. However, this contradicts findings from our own and other research that has consistently shown that case management is important for resolving housing problems (CHAIN Update #5 1997; Jezewski 1998). We suspect that the role of case management is confounded by the fact that individuals with the most problems and/or most in immediate danger of losing housing are more likely than others to seek case management assistance. In addition, Table 5 shows only whether or not a client had a case manager, not what the case manager did or was capable of doing for the client. Case managers who are housing placement specialists are likely to have an impact on housing outcomes masked by the broad use of case managers for a wide variety of purposes.

Substance Abuse Services. Table 6 shows the relationship between need for substance abuse services and receipt of services as they affect housing stability or instability in the approximately one year time period examined. Consistent with a growing body of literature, and our own earlier event history analyses predicting transitions into and out of housing stability, we can see that substance abuse increases the risk for housing difficulties. Among CHAIN study participants who were using heroin, cocaine, or crack weekly or more often when we talked to them for their Time 5 interview, almost half (48%) were homeless or precariously housed at their Time 6 interview. This compares to 40% housing instability among those who used any drugs at all in the six months prior to Time 5 interview and 26% among former drug users - those with a history of substance abuse who haven't used for at least six months. The lowest rates of housing instability are found among those who have never been problem drug users; only 11% have experienced recent housing instability.

Open-ended narrative discussions by CHAIN study participants emphasize the role of drug treatment and on-going AOD support services for maintaining housing. These relationships are suggested by the data presented on Table 6. Note that the analysis of the role of AOD services is restricted to individuals with some history of problem drug use which may or may not be current. Formerly homeless individuals who have had drug treatment services both Time 5 and Time 6 have relatively low rates of Time 6 housing instability compared to those with more limited treatment experience (29% compared to 37-41%). However, former drug users who received no treatment at all during the period under study have the same relatively low rates of housing instability. This may represent the subgroup of respondents who are fully in recovery and thus not needing continued AOD services. We did find a continuing effect of self-help, peer led AOD treatment groups such as AA, NA, and CA. Individuals with a substance abuse history who continued to participate in such groups at both Time 5 and Time 6 were significantly less likely to experience housing stability at Time 6 than their drug using counterparts (19% v.36% homeless, $p < .01$ data not shown).

Table 6: Current Unstable Housing by Housing and Support Services Received among CHAIN Study Participants with a History of Unstable Housing

	(n)	UNSTABLE HOUSING AT T6 INTERVIEW
Total CHAIN Participants with History of Homelessness/ Unstable Housing	(215)	29%
ANY HOUSING SERVICES T5		
Received Services	(150)	23% *
No Services	(65)	34%
TYPE OF HOUSING SERVICES T5		
AIDS Supportive Housing	18	22% **
Scatter Site Program	17	18%
SRO with Supportive Services	15	66%
Housing Placement Assistance	15	28%
Rental Assistance Only	85	13%
No Housing Services	66	34%
CONTINUITY OF HOUSING SERVICES		
Housing Services both T5 & T6	132	23% **
Housing Services T5 only	18	28%
Housing Services T6 only	23	52%
No Housing Services either period	42	24%
RENTAL SUBSIDY RECEIVED T5		
Yes	127	22%
No	88	33%
CONTINUITY OF RENTAL SUBSIDY		
Rental Subsidy both T5 & T6	104	18% **
Rental Subsidy T5 only	23	39%
Rental Subsidy T6 only	21	43%
No Rental Subsidy either period	67	30%
CASE MANAGEMENT SERVICES T5		
Yes	158	25%
No	57	32%
CASE MGMT BY HOUSING AGENCY T5		
Yes	45	36%
No	170	34%
INTENSITY OF CASE MANAGEMENT T5		
Face to face visit 1/wk or more often	57.	28%
Fewer case management visits	81.	25%
No case manager	77.	27%
CONTINUITY OF CASE MGMT T5- T6		
Case manager T5 & T6	125	25%
Case manager T5 only	33	24%
Case manager T6 only	20	40%
No case management either period	37	27%

Note: Row percentages shown * p ≤ .10 ** p ≤ .05 *** p ≤ .01

1. The individual was homeless, living on the streets, in a shelter or SRO, in jail or drug treatment program with no other place to live, or temporarily doubled up with others at any time prior to the most recent interview (T6 - 1999).

Table 7: Current Unstable Housing by Service Need and Services Received among CHAIN Study Participants with a History of Unstable Housing

	(n)	UNSTABLE HOUSING AT T6 INTERVIEW
Total CHAIN Participants with History of Homelessness/ Unstable Housing	(215)	29%
POOR MENTAL HEALTH FUNCTIONING T5		
Low-Low Mental Health score ¹	59	22% *
Low Mental Health score	33	45%
High Mental Health score	159	28%
MENTAL HEALTH SERVICES T5		
Low-Low mental health and no services	19	17% #
Low-Low mental health, received services	39	25%
Never low mental health functioning	70	39%
CONTINUITY OF MH SERVICES T5-T6²		
MH Services both T5 & T6	58	25% **
MH Services T5 only	22	50%
MH Services T6 only	12	51%
No MH Services either period	36	23%
SUBSTANCE USE PROBLEMS T5		
Current drug use weekly or more often	24	48% ***
Any current drug use	39	40%
Former problem drug user	115	26%
Never problem drug user	37	11%
AOD TREATMENT SERVICES T5³		
Current drug user and no services	38	44% **
Current drug user, received services	30	42%
Former user	123	26%
CONTINUITY OF AOD SERVICES T5-T6³		
AOD Services T5 & T6	67	29%
AOD Services T5 only	42	41%
AOD Services T6 only	20	37%
No AOD Services either period	64	28%
MULTIPLY DIAGNOSED		
Problem drug user and low mental health	40	34%
Not multiply diagnosed	175	28%
MULTIPLE SERVICES		
MICA with MH and AOD services	8	too few cases
MICA without both services	32	32%

Note: Row percentages shown.

* p ≤ .10 ** p ≤ .05 *** p ≤ .01

1. Mental Health Component Summary scale score on MOS-SF36. Score <37.0 consistent with psychiatric diagnosis. Score <42.0 is established cut point for clinically relevant symptomology.
2. Analysis restricted to individuals with at least one assessment of low (<42.0) mental health functioning
3. Analysis restricted to individuals who were ever problem drug users

Mental Health Services. Table 7 also shows a number of measures of need for mental health services and services received. These findings are consistent with the previous analyses that showed the role of mental health needs as a risk for housing instability. However, these data suggest that among persons with a history of homelessness, persons scoring at the lowest level on a standardized mental health functioning measure (MOS-SF36 MCS score) are currently less likely to experience recent episode of housing instability than those who's scores are slightly better although still at a level indicating clinically relevant symptoms. Persons with the lowest scores and no recent treatment also have relatively low rates of homelessness at Time 6 (17%). It may be that the persons at the lowest functioning level have previously come to the attention of the service system and find their ways into group homes and other housing options with enriched service support. Continuity of mental health services is significantly associated with housing stability. Twenty-five percent of persons with low mental health scores who received any type mental health services both at Time 5 and Time 6 experienced housing instability at Time 6 compared to 50% of those with more limited or intermittent treatment.

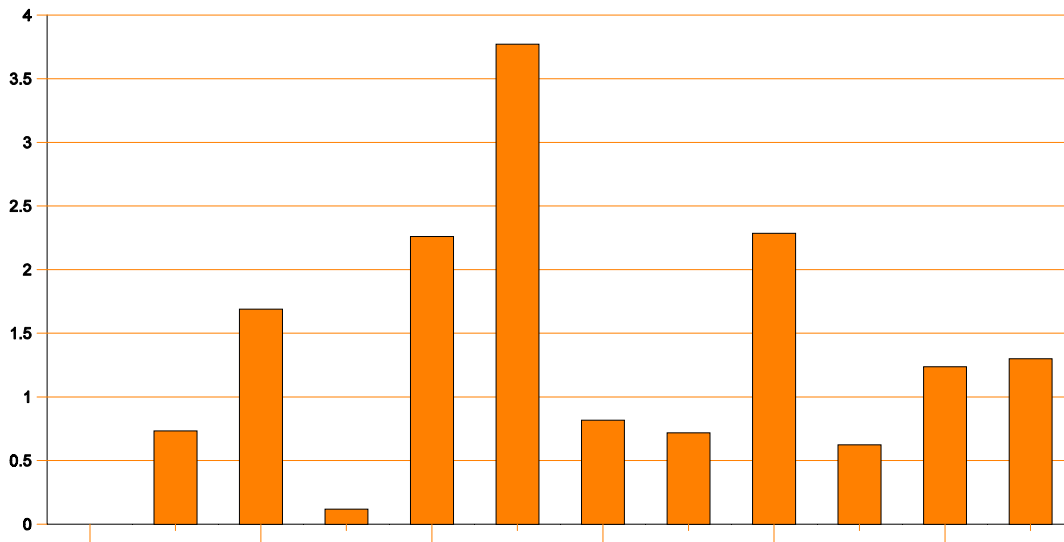
Comparing the role of Different Housing and Support Services

The last analysis we will undertake is to examine the role of different housing services, mental health services, and AOD treatment variables as they operate singly or jointly in effecting housing stability among persons with a prior history of homelessness. For this analysis we use multivariate logistic regression, a statistical procedure that will allow us to examine the effect of each factor in the model while controlling for all the others. Our sample is the set of all CHAIN Study participants who have had one or more episodes of homelessness or housing instability during the study period up to and including Time 5 and for whom complete over-time data is available (n=215). We are asking the question: which factors predict housing stability or instability at the Time 6 interview, approximately 9-12 months after the Time 5 assessment. Although we have a smaller sample size, the focus on Time 5 to Time 6 changes in housing status affords the opportunity to include more detailed coding and classification of housing services than is possible using the full longitudinal data base.

Table 8 and the associated graphic present the result of this analysis. The greatest impact on having stable vs unstable housing at the Time 6 interview is receipt of rental subsidy. Individuals who received rental assistance from either DASIS or another assistance program are about three times as likely to be in stable adequate housing than formerly homeless individuals who did not receive help paying rent. Receiving services as part of an SRO supportive services program does not appear to be associated with facilitating client movement to more stable and adequate housing, at least in the short term. Persons getting services in SRO based programs at their Time 5 interview were the least likely of all service categories to be found in stable living situations when recontacted 9 -12 months later. Living in an AIDS congregate facility or other enriched service facility increased the odds that previously homeless individuals would experience housing stability as did participating in a Housing Placement Assistance program. However these differences are not statistically significant - in part, one suspects, due to the small sample size.

Several other trends can be seen in the data presented in Table 8 which are consistent with our prior analyses. Being a current, frequent drug user and scoring low on the mental health measure decreases the chances that a person will have a stable, adequate living situation. Getting treatment for these problems helps not only the underlying clinical issue but facilitates housing success as

Figure 4. Increasing the Odds of Stable v. Unstable Housing



Services needed and services received at prior and current interviews

Table 8. Odds Ratios of Relationship between Housing and Support Services and Stable Housing at Time 6 Interview

	Stable Housing Status at Time 6
<i>Service Needs & Services Received</i>	
Scatter site housing services at prior interview	0.723
AIDS supportive service residence at prior interview	1.688
SRO with supportive services at prior interview	0.117 ***
Housing Placement Assistance at prior interview	2.261
Rental subsidy prior interview and continuing	3.772**
Case management at prior interview	1.300
Frequent drug user past six months	0.817
Drug treatment at prior and current interview	0.719
Self-help drug group at prior and current interview	2.825 **
Low mental health score at prior interview	0.624
Mental health services at prior and current interview	1.248

* $p \leq .10$ ** $p \leq .05$

Note: Numbers above 1.0 indicate factors that increase the likelihood of being in stable housing, and numbers below 1.0 show factors that decrease the odds of being in stable housing at Wave6 interview, controlling for all the other variables in the model.

Ongoing participation in a substance abuse support group appears to improve client's chances of maintaining stable housing over time.

SUMMARY AND CONCLUSIONS

This report has highlighted the crucial role of housing and support services for reducing homelessness/ housing instability among persons living with HIV in New York City. The vast majority of PLWHs experience housing problems at some point in their lives. Housing difficulties are often complicated by substance use and mental illness requiring a comprehensive support services approach. Getting and keeping housing appear to depend upon rent or income supports as well as wrap around services including case management, mental health intervention and/or substance abuse treatment. Based upon the analyses reported upon here, longer term connection to supportive services would seem to increase the odds of getting and keeping one's housing.

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