

CHAIN Report 2007-1a



**NEED FOR
MENTAL HEALTH SERVICES,
SERVICE USE, AND PATHWAYS TO
CARE**

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C.H.A.I.N. REPORT

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INTRODUCTION

Persons living with HIV/AIDS (PLWHA) are much more likely to suffer from mental health problems than non-HIV infected individuals. Rates vary among samples but research over the past 20 years has shown a wide range of mental health disorders and symptoms associated with HIV/AIDS (for recent review see Chandler, Himelhoch & Moore, 2006; Alegria et al. 2006). While mental disorders are not uncommon among the general population, with an estimated one in four adults suffering from a diagnosable mental health condition in any given year (Kessler et al. 2005), rates among PLWHA are substantially higher. Studies indicate that one-third to one-half of the HIV population meets criteria for at least one current mental disorder (Klinkenberg et al, 2004). A meta-analysis comparing HIV positive with uninfected individuals found HIV infected individuals nearly twice as likely to be diagnosed with major depression as HIV negative individuals (Ciesla & Roberts, 1991).

Using a mental health assessment tool that measures psychiatric symptoms and impairment in mental health functioning (McHorney, Ware & Raczek 1993), the CHAIN Study has consistently shown high rates of mental health problems among PLWHA in New York City. Among the original CHAIN cohort, at each interview period from 1994 to 2001, at least 40% of all CHAIN respondents scored “low” on the mental health scale indicating clinically relevant psychiatric symptoms, and the majority of these had scores in the ‘very low’ range, below the mean score seen in psychiatric inpatient populations (Aidala & Lee, 2001; Abramson et al. 2000; Aidala, 2000;1997;1996). A similar mental health screening instrument (Kessler et al. 2003) has been used in yearly population surveys by the New York City Department of Health and Mental Hygiene (DOHMH). The DOHMH surveys indicate that 6- 13% of New Yorkers experience serious mental health symptoms (DOHMH 2008) and need mental health treatment or care. While the measures are not strictly comparable, there is no neighborhood or sub-population in New York City with rates of mental health problems that approach rates seen in studies of HIV positive populations.

High prevalence of mental health problems may reflect high rates of preexisting psychiatric and substance abuse disorders or indicate an increased risk for HIV infection among those with mental disorders with or without co-occurring substance abuse (Alegria et al. 2006). PLWHA also confront a number of social and psychological challenges associated with onset of mental illness. Anxiety, depression, and emotional distress may be a response to receiving a diagnosis of HIV infection, or to subsequent symptoms or disability associated with the course of illness. Other psychosocial challenges include dealing with social stigma and rejection, changes in social roles and relationships, uncertainty regarding employment and financial resources, and loss of loved ones (Holder-Perkins & Akman, 2006; Markov et al., 2006).

Regardless of etiology, CHAIN studies and other research have shown that mental health problems, when untreated, have a number of negative impacts. They cause significant suffering and make it harder for people to function on a day-to-day basis and manage their HIV disease. Mental health problems can pose serious barriers to medical treatment access and adherence to treatment regimens and are associated with poor virological suppression and HIV mortality. PLWHA who have mental health and co-occurring substance abuse problems face additional challenges (Chander, Himelhoch & Moore, 2006; Cook et al. 2004; Ickovics et al. 2006; Leserman et al. 2000; Tostes et al.2004; Udall et al. 2004).

The goals of this report are to examine need for mental health services and pathways into mental health care among the most recent CHAIN study participants, recruited in 2002-03. We will compare indicators of need and predictors of entry into mental health services to patterns seen at earlier time periods.

MAJOR FINDINGS

- There is considerable unmet need for mental health services. At each interview period, 40% - 47% of individuals with low scores on a standardized measure of mental health functioning had no type of mental health services at all, including no involvement with support groups or discussions with any type of counselor about emotional or psychological issues. Among PLWHA with the lowest scores, in the range typically seen among psychiatric inpatient populations, the proportion receiving treatment by a mental health professional has remained at about one-third.
- Self-perceived need for mental health treatment or services remains the single biggest predictor of accessing care among those with need for services indicated by low scores on the standardized measure.
- Having a medical provider who meets standards of comprehensive primary care is predictive of entering mental health care among those whose scores indicate treatment need.
- Case management appears to be an important entry point for accessing mental health services in both direct and indirect ways. An important pathway is case manager referral to settings where mental health services are incorporated into comprehensive care (supportive housing, drug treatment, comprehensive primary care) rather than direct referral to mental health services as such. This points to the importance of systematic mental health screening in a wide range of service settings to facilitate more timely entry into appropriate treatment and services for individuals in need of care who do not recognize or hesitate to admit need.

BACKGROUND AND METHODOLOGY

Sample

This report is based primarily on information provided by interviews conducted in 2002-2004 with a probability sample of persons living with HIV in New York City – the CHAIN “New Cohort”. The CHAIN study has followed a recruitment procedure designed to yield a broadly representative sample of people living with HIV in New York City since the first phase of the project in 1994. The most recent cohort was sampled and recruited following the same protocol used for the original CHAIN sample. A two-step process was used. A wide selection of service providers was randomly chosen, and with the assistance of agency staff, individual clients were randomly selected from agency rosters or through a sequential recruitment procedure. Recruitment for the 2002 cohort was conducted at 34 randomly selected medical and social service agencies known to serve HIV positive adults. Baseline interviews were completed with 684 agency-recruited individuals and a small sample (n=25) of

HIV-positive individuals unconnected to medical care, contacted through outreach activities. For comparisons over time, we include data from earlier cohorts. An additional 648 HIV-positive individuals recruited from agency sites were part of the original 1994 cohort, along with 52 PLWH unconnected to services. A refresher cohort of 268 was recruited in 1998-99 using the 1994 agency sample frame and 24 PLWHA unconnected to care.

Table 1 compares the 2002 CHAIN agency-recruited cohort of 693 individuals with contemporaneous New York City HIV/AIDS surveillance data and a duplicated count of Ryan White CARE Act-funded encounters. The gender and ethnic composition of the NYC cohort is similar to the AIDS and HIV epidemiology data with the exception of the substantial under representation of white males and greater proportion of African American and Latino males. The ethnic imbalance is much less pronounced for females. The CHAIN sample more closely mirrors the CARE Act encounter data. One possible explanation is that white HIV positive adults at this stage of the epidemic are more likely to be receiving care at private physician offices (not in the CHAIN sampling frame) and less likely to need social services. Minority PLWHA are more likely to seek care at outpatient clinics, neighborhood health care centers and social service agencies where CHAIN members were recruited. Details about sample recruitment and representativeness of the earlier samples have been discussed elsewhere (Abramson 2003).

Table 1. Sample Representativeness, NYC HIV/AIDS Cases and CHAIN Cohort

	NYC Persons Living with AIDS, as of 6/30/03 ¹		NYC Persons Living with HIV, as of 6/30/03 ¹		Ryan White CARE Act Encounters, 3/2001 - 2/2002 ²		CHAIN 2002 Cohort 6/2002-6/2004	
	Female	Male	Female	Male	Female	Male	Female	Male ³
Total N	15,753 (28%)	39,765 (72%)	10,104 (35%)	18,995 (65%)	10,765 (39%)	16,962 (61%)	278 (40%)	415 (60%)
White	11%	25%	8%	30%	9%	8%	6%	10%
Black	56%	40%	58%	36%	53%	53%	62%	47%
Latino	33%	32%	31%	30%	37%	37%	31%	41%
Other	1%	2%	3%	4%	2%	2%	<1% (1)	2%

¹ Source: Personal correspondence, HIV Epidemiology Program, NYC Department of Health and Mental Hygiene.

²Source: HIV CARE Services. Data represent a duplicated count of first time encounters with Ryan White CARE Services in FY11, March 2001 - February 2002.

³ Seven transgender in transition persons are included in male category.

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. Several staff members are themselves HIV positive. Interview topics include sociodemographics, the full range of experiences with service need, access and use of medical and social services, and quality of life. The CHAIN project has had strong support in the PLWHA community which has helped maintain a high retention rate; 80%- 90% of eligible respondents have been interviewed at each follow-up period.

Measures

Measuring Mental Health

A standardized measure based on the MOS-SF36, Medical Outcomes Survey, is used to measure current mental health functioning and, thus, need for mental health services. A series of subscales are combined into the “mental component summary score” (MCS) which is a measure of general mental health functioning. The subscales measure: a) symptoms of depression and anxiety; b) low energy or listlessness; c) impaired role functioning with regard to work and daily responsibilities; d) impaired social functioning in terms of social relationships and activities.

Validation studies have shown that the MCS distinguishes groups differing in the presence and severity of psychiatric disorder. A cut-off point of 42.0 (referred to as “low mental health”) on the summary score indicates current, clinically relevant psychiatric symptoms - symptoms of sufficient intensity and duration that cohere in patterns consistent with several possible diagnoses defined by the Diagnostic and Statistical Manual (DSM-IV). A cut point of 37.0 (“very low mental health”) is the mean score seen in psychiatric inpatient populations, and indicates more severe impairment associated with probable psychiatric diagnosis or diagnoses (Ware et al. 1994). For the present report, scores on the MCS measure below 42.0 are considered to indicate need for mental health services, if only referral for clinical psychiatric assessment.

In addition to administering the standardized measure of mental health functioning, the CHAIN interview also includes a series of direct questions, asking if the client had experienced “emotional or psychological difficulties including relationship problems” or need for mental health services in the six months prior to interview. We use this as a measure of self-perceived need for mental health services. Prior analyses have shown that client perception of service need is an independent predictor of service utilization (Aidala et al, 1996; 1997).

Measuring Mental Health Service Utilization

At each interview, respondents were asked if in the prior six months, they had received “any psychological or emotional counseling or therapy including talking to a pastor or other religious counselor, or attended a support group” (excluding groups focused on substance abuse issues such as AA or NA). Further questions asked whether or not the respondent received any services from a range of possible providers. One or more visits with a “mental health care professional like a psychiatrist, psychologist, therapist” or a “specially trained social worker or CSW” indicated receipt of professional mental health services. Number of visits for counseling from a non-CSW social worker or case manager were distinguished from visits to clergy or other religious counselors and were considered receipt of “supportive counseling.” The number of sessions participating in a self-help or support group oriented to psychological and emotional needs of persons living with HIV/AIDS was also recorded.

Service utilization is based upon client report. Note that the specific mental health training and licensure of providers is seldom known to respondents. However, a series of questions and cross-checks allows us to distinguish between visits to CSWs ‘or specially trained social worker’ whom the respondent sees only with regard to mental health issues who are classified as professional mental health providers and counseling received from a “social worker or case manager who also helps you

get social services.”

Covariates

We will examine associations between mental health scores and need for services and service utilization in a number of other service areas as these might predict entry into mental health care among PLWHA with low mental health scores. Need for supportive services was indicated as follows: Respondents were coded as frequent drug users if they had used heroin or crack/ cocaine three times a week or more often at some point in their lives although not necessarily in the recent past. Current user was defined as someone who used any heroin or crack/cocaine, or reported problem drinking, in the 12 months prior to interview. Homelessness or unstable housing during the six months prior to interview was considered need for housing services. Homelessness as well as not having medical insurance were indicators of need for case management services.

Receipt of drug treatment services is indicated by reports of participation in a self-help group or receipt of more formal agency or clinic-based treatment services. We differentiated types of case management services and included in the model case management oriented toward meeting social service needs, based upon a respondent’s report that a case manager developed or revised a care plan, helped the client get specific social services, checked that services were being obtained, or filled out forms for benefits or entitlements. Respondents were coded as receiving housing services if they got “practical help” in resolving their housing problems from a housing agency or other provider in a position to assist with housing needs.

We included an indicator of comprehensive primary care characterized by coordination, comprehensiveness, and access. Respondents who answered that they have one medical provider whom they consider in charge of their overall HIV care; that they have always had someone to go to for routine checkups, vaccinations, or medical tests; someone they could go to for information or advice about health concerns; and access to care in case of a medical emergency, 24 hours a day, are coded as having coordinated and comprehensive primary HIV care.

FINDINGS

A. Mental Health Needs

1. Cross-sectional Trends

For the most recent cohort, at baseline interview (2002) 48% or almost half of all CHAIN agency recruited participants had scores below 42.0 indicating clinically relevant symptoms and thus some need for mental health services; 36% scored below the “very low” cut point (Table 2).

Rates are much higher among individuals unconnected to medical care at baseline interview compared to CHAIN participants recruited in agency or clinic settings. Although the sample is small, almost 90% of the unconnected subsample have mental health scores below the mean score seen in psychiatric in-patient populations, indicating considerable impairment in mental health functioning.

Approximately 1/5 of all PLWHA in care and upwards of 80% (78%) of those outside of care have low mental health scores and problem drug use (heroin, crack/ cocaine or problem drinking). These

Table 2. Indicators of Need for Mental Health Services

	Agency Sample	Unconnec'd Sample
2002 COHORT	(684)	(25)
Low Mental Health (<42.0)	48%	89%
Very Low Mental Health (<37.0)	36%	89%
Dual Diagnosis*	20%	78%
1998 COHORT	(638)	(14)
Low Mental Health (<42.0)	40%	79%
Very Low Mental Health (<37.0)	26%	64%
Dual Diagnosis*	17%	79%
1994 COHORT	(690)	(41)
Low Mental Health (<42.0)	51%	59%
Very Low Mental Health (<37.0)	36%	44%
Dual Diagnosis*	25%	43%

"Low" mental health (<42.0) indicates clinically relevant psychiatric symptoms

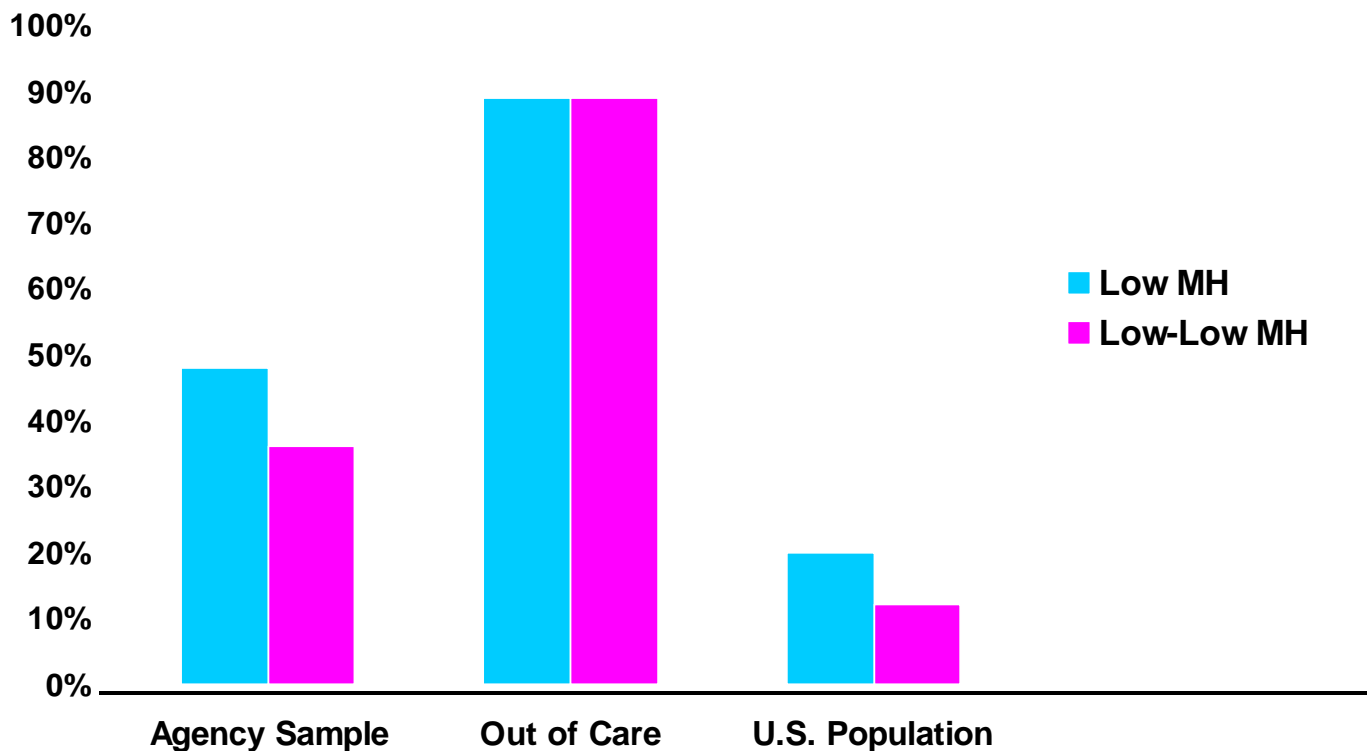
"Very Low" mental health (<37.0) is below the mean score seen in psychiatric in-patient populations

*Dual diagnosis indicated by low mental health score and problem drug use past 12 months

would comprise the 'triple diagnosed' or HIV-positive MICA population. Note that our study does not allow us to determine whether problem drug use was antecedent or subsequent to onset of mental health problems.

Rates of "low" and "very low" mental health scores for agency recruited clients in 2002 are similar to rates seen among the 1994 cohort. Scores appear somewhat better among the 1998 cohort. An increasingly larger proportion of those outside of care appear to have serious mental health needs ranging from 44% in 1994 to 64% in 1998, to 89% in 2002.

Rates of mental health problems among persons living with HIV/AIDS in this sample are much higher than found among general samples of adults. Fewer than 20% of the U.S. population have scores below 42 on the SF-36 MCS summary score, and only 12% have scores in the 'very low' range (see Figure 1).

Figure 1. Mental Health Scores among PLWH in 2002 Compared to U. S. Population

2. Self-Reported Need for Mental Health Services

Consistent with prior investigations, relatively few CHAIN participants report that they have any emotional or psychological problems or any need for mental health services. As shown in Table 2, among the most recent cohort (2002) almost half of the agency sample score below the cut point on the standardized scale indicating clinically relevant symptoms. However, only 13% of the agency sample answered “yes” to questions about experiencing emotional or psychological problems or need for mental health services (Table 3).

The recognition of need for mental health services has not shown consistent improvement. Among PLWHA interviewed in 2002 who had scores comparable to psychiatric inpatients, only 23% answered “yes” to questions about mental health needs. This is a smaller proportion than among CHAIN participants with very low mental health scores who were interviewed in 1994.

3. Use of Mental Health Services

Table 4 presents a breakdown of the type of mental health services received among people with low mental health scores (< 42.0) at the most recent interview period. Rates of service use are presented for clients with low scores among the 1998 and 1994 cohorts.

Table 3. Self-Reported Need for Mental Health Services

	2002 Cohort	1998 Cohort	1994 Cohort
TOTAL SAMPLE (n=)	(693)	(652)	(648)
Answered “yes” to questions about emotional or psychological difficulties need for mental health services past 6 months	13%	7%	26%
SUB SAMPLE WITH VERY LOW MH* (n=)	(248)	(201)	(250)
Answered “yes” to questions about emotional or psychological difficulties need for mental health services past 6 months	23%	15%	36%

Among the most recent cohort (2002), the majority (61%) of participants with low scores received some type of mental health services. Slightly more than one-third (37%) had services that included one or more visits with a provider described as a psychiatrist, psychologist, therapist, CSW or other “mental health care professional.” A comparable proportion (38%) had participated in a self-help or support group oriented to psychological and emotional needs of persons living with HIV/AIDS. About one-quarter (26%) received counseling from a provider described as a “social worker or case manager”, and 3% visited clergy or a religious or spiritual counselor. Many persons used more than one type of provider.

Thirty-nine percent (39%) of PLWHA with low mental health scores in the 2002 cohort did not report any type of mental health services. Over time comparisons indicate that participants with low mental health scores in more recent years are more likely than at earlier times to be receiving some type of mental health care. However the difference appears to be an increase in receipt of supportive counseling or participation in support groups. Rates of treatment by a mental health professional have shown little change. The proportion of CHAIN participants with low mental health scores who had one or more visits for supportive counseling from a case manager or non-specialist social worker or other counselor increased from 9% in 1998 to 26% in 2002; visits to a psychiatrist, psychologist, CSW or other mental health professional decreased slightly from 38% to 37%.

A. Intergroup Differences

Tables 5 and 6 (which present data exclusively from the 2002 cohort) present intergroup differences in the proportion who score low on the mental health measure, and the use of different types of mental health services among those with low scores. The first thing to note is the relatively constant rate of need for services. Among all subgroups of clients at least 40% have mental health scores indicating clinically relevant symptoms.

Table 4. Use of Services among Clients with Low Mental Health Scores

	2002 Cohort	1998 Cohort	1994 Cohort
<i>Among those with Low Mental Health (n=)</i>	(331)	(269)	(352)
Mental health professional such as psychiatrist, psychologist, CSW	37%	38%	34%
Case manager/social worker for mental health counseling	26%	9%	25%
Clergy or religious counselor	3%	3%	5%
HIV/AIDS support group	38%	28%	33%
USE OF ANY MENTAL HEALTH SERVICES	61%	53%	54%
NO MENTAL HEALTH SERVICES	39%	47%	46%

Note: Self-report of one or more visits to a type of mental health service provider or participation in one or more sessions of an HIV support group during the six months prior to interview among participants with low mental health (<42.0) scores indicating clinically relevant symptoms. Multiple responses possible.

Rates of need for mental health services are highest among younger participants, those who have recently experienced homelessness, and current problem drug users. Non-Hispanic Whites have higher rates of mental health need than other race/ethnic groups; approximately 60% have low mental health scores. Lower scores are also more prevalent among women and those with lower education and income. Thirty-nine percent (39%) of CHAIN participants who are asymptomatic score below the cut-point indicating need for mental health services, lower than rates seen in participants at later stages of illness.

Among those with low mental health scores, few individual client characteristics are strongly associated with the type of mental health services received; among the earlier cohorts, client characteristics were more strongly associated with differential use of different types of mental health care, especially rates of contact with a mental health professional (see: Aidala et al. 1997; 2000). More recently, differences are more often found when we examine the association between mental health service utilization and use of other types of services. Specifically, case management oriented toward obtaining or coordinating medical services, case management to help with social service needs, self-help drug treatment, and housing services are associated with differential receipt of mental health services - whether or not someone with need receives services and what type of services they are more likely to receive (Table 6). Receiving comprehensive HIV primary care - characterized as coordinated (one provider in charge) and accessible (access to preventive care and regular source of medical information or advice, and 24-hour emergency access) - does not appear to be strongly associated with differential access to mental health services among persons with low mental health scores.

Table 5. Need for Mental Health Services and Mental Health Service Utilization by Sociodemographic Characteristics (data from 2002 cohort only)

	(n)	% with Low Mental Health Score ¹	Type of Mental Health Services Used by Persons with Low Mental Health Scores ²		
			Mental Health Profess'l	Other MH Services	No Mental Health Svces
TOTAL SAMPLE	(693)	48%	37%	22%	39%
AGE					
20-34 yrs	(64)	63%**	30%	18%	53%#
35 - 49 yrs	(411)	49%	41%	25%	34%
50+ yrs	(218)	41%	31%	21%	48%
GENDER					
Female	(275)	52%*	43%	20%	38%
Male	(418)	45%	33%	26%	42%
RACE/ETHNICITY					
White	(61)	59%**	42%	17%	42%
Black	(362)	42%	37%	28%	36%
Latino	(259)	53%	38%	20%	42%
IMMIGRANT STATUS					
Born U.S.A.	(527)	47%	37%	24%	39%
Born Other Country	(166)	52%	38%	21%	41%
EDUCATION					
Less than HS grad	(277)	53%**	32%	24%	45%
HS grad	(416)	44%	42%	22%	36%
INCOME					
Less than \$10,000	(550)	49%*	38%	23%	39%
\$10,000 or more	(124)	40%	35%	22%	43%
BOROUGH					
Bronx	(182)	47%	33%	26%	41%
Brooklyn	(190)	48%	40%	21%	40%
Manhattan	(194)	47%	40%	20%	41%
Queens	(96)	51%	35%	27%	39%
Staten Island	(31)	49%	40%	27%	33%

#p = .10 *p ≤ .05 **p ≤ .01 ***p ≤ .001

NOTE: Row percentages presented. CHAIN baseline interviews.

¹ Respondents scoring below 42.0 on the MOS-SF36 Mental Component Summary Scale (MCS) indicating clinically relevant symptoms

² Client description of mental health services used during six months prior to interview.

Table 6. Need for Mental Health Services and Mental Health Service Utilization by Drug Use History, Risk Exposure, Housing Status, AIDS Diagnosis, and Other Service Use (data from 2002 cohort only)

	n	% with Low Mental Health Score ¹	Type of Mental Health Services Used by Persons with Low Mental Health Scores ²		
			Mental Health Profess'l	Other MH Services	No Mental Health Svces
TOTAL SAMPLE	(693)	48%	37%	22%	39%
DRUG USE HISTORY					
Currently (past 12 months)	(235)	59%***	40%	21%	39%
In the past	(281)	42%	34%	25%	41%
Never used drugs	(177)	44%	36%	24%	40%
RISK EXPOSURE GROUP					
MSM	(161)	48%	36%	18%	46%
IDU	(211)	48%	31%	28%	41%
MSM & IDU	(29)	45%	39%	39%	23%
Heterosexual /OTHER	(292)	48%	42%	19%	39%
CURRENT HOUSING STATUS					
Homeless	(124)	58%*	43%	19%	38%
Unstable housing	(66)	49%	41%	25%	34%
Stable housing	(503)	45%	39%	24%	41%
STAGE OF HIV DISEASE					
Asymptomatic	(226)	39%**	35%	21%	45%
Symptomatic	(86)	54%	44%	19%	46%
AIDS	(381)	52%	37%	27%	36%
INSURANCE					
Medicaid	(622)	48%	38%	23%	39%
Other Public	(50)	46%	26%	26%	49%
Private	(17)	41%	43%	14%	43%
SERVICES PAST SIX MONTHS					
Comprehensive primary care	(524)	44%**	36%	24%	40%
Medical case management	(291)	47%	40%	27%	33%#
Case management for social services	(409)	48%	40%	28%	32%***
Professional drug treatment	(101)	51%	43%	24%	33%
Self-help drug treatment	(109)	51%	55%	20%	26%**
Housing services	(178)	52%	44%	26%	30%#

#p = .10 *p ≤ .05 **p ≤ .01 ***p ≤ .001

NOTE: Row percentages shown. CHAIN baseline interviews.

¹ Respondents scoring below 42.0 on the MOS-SF36 Mental Component Summary Scale (MCS) indicating clinically relevant symptoms

² Client description of mental health services used during six months prior to interview.

B. Predicting Entry into Mental Health Care

For this analysis, we will examine what predicts entry into any type of mental health services by the next interview for persons with low mental health scores (< 42.0) at the time of assessment. This analysis uses data from the multiple cohorts involved in the CHAIN study, including most recent CHAIN cohort, interviewed up to three times between 2002 and 2006. We use a statistical procedure called “event history analysis” (Tuma & Hannan 1984). An event history describes how an individual moves into and out of some status (e.g. in and out of mental health care) and the duration or time between events. The unit of analysis is not the individual but the event. Public health researchers may be more familiar with the closely related statistical procedures of hazard or survival analyses.

We examined need for services and service utilization in a number of issue areas as these might predict entry into mental health care among PLWHA with low mental health scores. A number of individual client characteristics were also added to the model: gender, ethnicity, educational level (less than high school), risk exposure group (MSM vs other) and length of time since HIV diagnosis.

Table 7 shows the relationship between needing and receiving other medical and social services as they affect receipt of any mental health services among CHAIN participants with low mental health scores (< 42.0). Consistent with prior investigations into pathways into mental health services, the present analysis again directs our attention to the importance of self-perceived need for mental health services (Figure 2). The odds of accessing mental health care among individuals who answer “yes” to direct questions about emotional or psychological problems are more than three times as great as for those who answer “no” regardless of their low mental health scores (AOR 3.45). The biggest predictor of entry into mental health care is self-perceived and articulated need for care.

Receipt of housing services and comprehensive HIV primary care also significantly increase the odds that persons experiencing mental health symptoms at one interview will enter some type of treatment or care by the next interview period, approximately 12 months later. These factors appear more important in the 2002 cohort than at earlier time periods, likely reflecting the increased programmatic emphasis on locating mental health services in primary care and homeless service settings (Havens et al. 2002).

A history of more involved drug use and current participation in self-help drug treatment such as AA or NA also increase the odds that a person with low scores will get mental health services by the next interview, although neither reach statistical significance in the full adjusted model. This suggests an important role for informal self-help groups in facilitating psychological treatments and therapy among drug users. This finding is consistent with a prior CHAIN report that found the combination of formal drug treatment along with and/or followed by on-going participation in self-help groups is most strongly associated with positive medical and mental health outcomes, especially among the most seriously drug involved individuals in the sample (Abramson et al.2000).

In the bivariate or unadjusted model, medical case management and case management addressing social service needs significantly increase the odds that persons experiencing mental health symptoms will enter some type of treatment or care. However case management oriented to arranging or coordinating medical needs is reduced to nonsignificance when the other variables are entered into the model. It may be that case management oriented toward addressing social service needs assists mentally ill clients to access housing services or drug treatment where systematic screening and onsite mental health services are available to ‘intercept’ those in need.

Not having any medical insurance reduces the odds that an individual with scores on the mental health measure indicating need for services will receive any mental health treatment or care.

The remaining variables including gender, race/ethnicity, MSM risk category, length of time since diagnosis, and low education were neither positively nor negatively associated with accessing mental health services, once the other variables in the model were controlled for.

Comparing models based on data from different time periods, housing services and comprehensive primary care have increased in importance as predictors of mental health service utilization among CHAIN participants with mental health needs. Self-perceived need for services is a consistent predictor but has increased in importance compared to analysis restricted to the 1994 cohort followed from 1994 - 2000 (data not shown).

Table 7. Longitudinal Odds Ratios for Accessing Mental Health Services, Combined CHAIN Over-time Data 1995-2006

<i>Service Needs & Services Received</i>	Entry into Any Mental Health Services	
	Odds Ratio	Adjusted Odds Ratio
Comprehensive Primary Medical Care	1.77**	1.76**
Self-report emotional/ psychological problems	3.51***	3.45****
Homeless/ unstable housing past 6 months	1.23	1.24
Received housing services past 6 months	2.46***	2.26***
Frequent drug user: lifetime	1.91#	2.00
Used drugs past 12 months	0.91	0.92
Received drug treatment services at prior interview	1.10	0.95
Self-help drug treatment at prior interview	1.81*	1.66#
Received medical case management at prior interview	1.74*	0.74
Received case management for social services at prior interview	1.77**	1.61*
No medical insurance	0.08*	0.77*

$p \leq .10$ * $p \leq .05$ ** $p \leq .01$

Note: Odds of entry into any mental health care among CHAIN participants with low mental health and no mental health services. Numbers above 1.0 indicate factors that increase the likelihood of persons with low mental health scores and no services getting services by the next interview

SUMMARY AND DISCUSSION

This report suggests that unmet need for mental health services among persons living with HIV/AIDS in New York City remains substantial. Close to half of the sample have scores on a standardized measure of mental health functioning indicating need for mental health services, at least for clinical assessment and diagnosis. Among those whose mental health scores indicate service need, 40% have had no contact with a mental health professional, nor any supportive counseling or other services to address mental health or emotional needs in the six months prior to interview.

With the data at hand, it is not possible to determine whether psychiatric illness preceded or developed subsequent to HIV infection. Limited information on early experiences known to be associated with increased risk for psychiatric disorder (extreme poverty, exposure to trauma and violence) would indicate that earlier mental health difficulties were not uncommon. On the other hand, earlier exposures and prior history of psychiatric involvement were far from universal, suggesting that for a significant proportion of PLWHA living in New York City, mental health problems followed or were exacerbated following HIV diagnosis. Other research has shown that emotional distress, anxiety, and depression are associated with course of HIV disease among diverse populations with no prior history of mental illness (Holder-Perkins & Akman, 2006; Markov et al., 2006).

Another limitation of the present study is the lack of data available to determine the exact reasons why such a high proportion of PLWHA whose mental health scores indicate need for services do not access mental health treatment or care. One important barrier is the lack of client recognition or acknowledgment of mental health needs. Despite the advances over the last several decades in the understanding and treatment of mental illnesses, stigma and lack of understanding about these conditions are pervasive (HHS 1999). Client under-recognition of need for mental health services is clearly a strong and consistent predictor of service utilization among persons living with HIV/AIDS as seen in the current and earlier CHAIN investigations (Aidala, 2001) as well as reported in other research (Aidala et al. 2005; Bernham & Sherbourne 2002; Fernandez, 2005; HIV Cost Study, 2004).

Difficulties with the recognition of mental health symptoms among clients can be further exacerbated by under-recognition of mental health issues by HIV providers. As recent research indicates, both primary care providers and case managers vary considerably in their ability to diagnose and treat common mental health disorders. Limitations may be structural or resource related (e.g. not enough time or trained personnel) or manifestation of minimal training for systematic assessment of mental health needs of HIV positive clients (Aidala, et al. 2005; Chander et al, 2006; Sherbourne et al 2006). Research also suggests that unmet need remains especially high among individuals who are multiply diagnosed – with mental disorders complicated by substance abuse and vice-versa. While treatments may be available, they are not always used or used effectively, leading to adverse outcomes, including increased disability and distress; poor coping skills; heightened psychosocial stress from poverty; homelessness and incarceration; and continued risky behaviors that limit HIV care (Stoff et al. 2004; HIV/AIDS Treatment Adherence Health Outcomes and Cost Study Group 2004).

Some findings in the present report may be indicators of improvements in bringing mental health services to those who need them. Among CHAIN study participants who report a need for mental health services and make an attempt to access treatment or care, approximately 80% do report at least one visit to a mental health program or paid provider for treatment or care.

In contrast to earlier periods, having a medical provider who meets standards of comprehensive

primary care is predictive of entering mental health care among those whose scores indicate treatment need. Having contact with a housing service provider is also predictive of receiving mental health care among those who need it. Although the effects of policy initiatives cannot be determined with these limited comparisons, these findings may indicate some success with recent Planning Council initiatives to locate mental health services in primary care and homeless service settings and to systematically screen and intercept those with mental health needs who themselves would not otherwise seek mental health care (Havens et al. 2002).

Case management continues to be an important entry point for accessing mental health services for large numbers of persons with mental health needs, and case managers provide the bulk of supportive mental health care. In a series of other analyses not reported here, the CHAIN study found that the best outcomes for clients with mental health needs result from receipt of professional mental health treatment followed by ongoing supportive services such as supportive counseling or peer group participation (Abramson et al. 2000). Case managers located in medical settings, and mental health providers located in housing or drug treatment as well as medical settings are in a position to facilitate such a continuum of care.

Findings from this study of pathways into mental health care point to the importance of strengthening the screening, assessment and referral processes to facilitate more timely entry into appropriate mental services for individuals in need of such care who do not recognize or hesitate to admit their treatment need.

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