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C.H.A.I.N. BRIEF REPORT

Utilization of Food and Nutrition Services among People with HIV in NYC

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Figures

INTRODUCTION: FOOD AND NUTRITION SERVICES AS HIV SERVICES

Food and nutrition are basic aspects of human existence. They provide not only bodily sustenance, but are core aspects of social life, group and cultural identity, and critical markers of adult status. For HIV-infected people, food and nutrition take on particular importance, for medical, psychological, and social reasons. "Wasting" syndromes, with loss of body weight and mass, are among the common manifestations of HIV-infection. Individuals with lengthy or recent histories of heavy drug use are particularly likely to show the effects of long periods of reduced calorie and nutrient intake. Many HIV medications place demands on the body, and create side effects that may be counteracted partly through proper diet. Finally, being able to feed oneself is a key aspect of adult identity, and meals are an important occasion for interaction with others.

This report looks at key aspects of the use of four different food and nutrition services among the CHAIN cohort. It finds that

1. overall usage of food and nutrition services is modest;
2. patterns of usage differ according to the specific service examined;
3. use of food and nutrition services has little relationship to use of other services (with the notable exception of case management services;
4. the key factor associated with *use* of these services is *need* for services, as measured by access to kitchen facilities and the ability to prepare one's own meals.

METHODS

The CHAIN cohort includes a total of 968 participants. The original cohort (N=648) enrolled in 1994-95, was supplemented by an additional 267 "refresher" participants, enrolled in 1998. Recruited from a randomized sample of health and social service agencies, the CHAIN cohort is a broadly representative sample of the HIV-infected population engaged in services in New York City.

The questions on utilization of food and nutrition services were asked only in Wave 6 (collected 1999) and analysis is restricted to the relatively modest sample (N=508) included in that wave. This wave includes both relatively long-term members of the cohort (who we might expect to be relatively engaged in services already) and more recently recruited (Wave 5, in 1998) members (who are probably less engaged in services). However, both groups are followup interviews from previous baseline enrollments, so they do not represent the complete original samples. In addition, this is a relatively stable and service-engaged sample. For example, only a small percentage (2%) were homeless at

the time this subset of data was collected. Interpretations of this data should consider that it may be biased toward the more stable portions of the HIV-infected population, and as a result may underestimate both need for and utilization of certain food and nutrition services among the overall HIV-infected population of NYC.

RESULTS

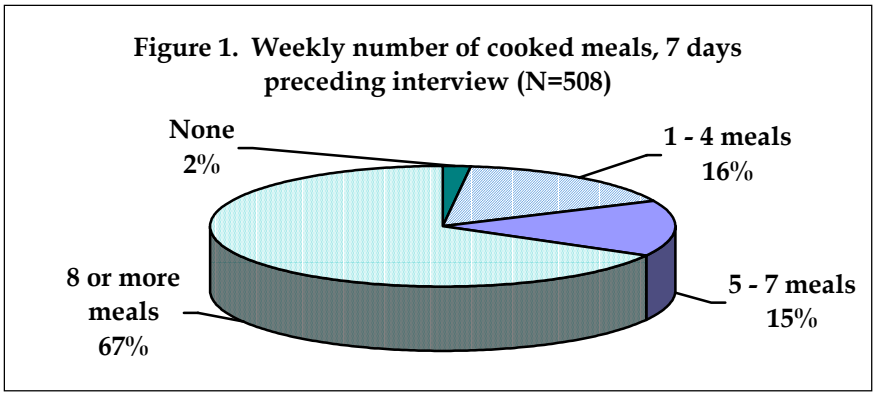
1. Few participants express *desire* for or unmet *need* for food and nutrition services.

Respondents expressed only a modest need for food and nutrition services. This may underestimate actual need, as the subsample analyzed here has generally been engaged in services for some time. We examined need for nutritional services in two ways.

First, the questionnaire included an item asking whether respondents have "needed help in the last 6 months with food, groceries, or meals." Only 11% said that yes, they wanted help with this. This is understandable when we examine both the level of services already received, and the food and nutrition services situation of the sample. Many needs in this area were already being met when respondents were interviewed.

Second, we measured nutritional adequacy by asking participants approximately how many *cooked meals* they ate in the preceding week. While a very rough measure, it indicates the potential for basic nutritional adequacy, as cooked meals expand the range of nutritional choices available.

Figure 1. Weekly number of cooked meals, 7 days preceding interview (N=508)



Almost 2/3 of the sample reported eating *8 or more* cooked meals per week, an average of at least one cooked meal per day. An additional number (almost 1/3) reported eating a cooked meal 1 to 7 times per week, or the equivalent of some days of the week. Only a very small proportion reported *no* cooked meals at all (Figure 1).

2. *Utilization* of food and nutrition services in the sample is modest.

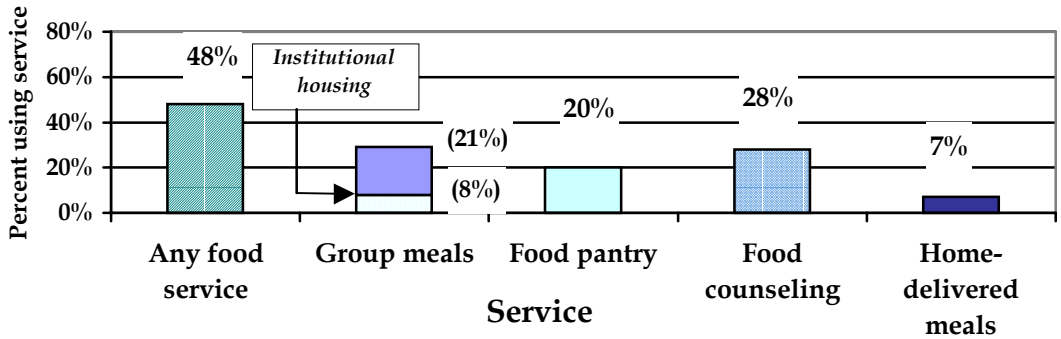
We asked participants about their use of 4 *different* food and nutrition services in the preceding 6 months:

1. Group meals
2. Food pantries
3. Food and nutrition counseling
4. Home delivered meals

We also examined use of *any* (1 or more v. none at all) of these services.

Utilization of food and nutrition services is modest. Less than half the sample were using *any* type of food services, and of those using services (N=245), only 47% were using more than one type of service. The least-used type of service was home-delivered meals. Group meals and food counseling were used by approximately the same proportion of the sample, and food pantries by a slightly smaller proportion (Figure 2). While 29% reported using group meal services, not all were doing so out of necessity. Included in this 29% were 8% who reported living in institutional settings – chiefly residential drug treatment, with a few in hospital or correctional environments – where group meals are part of the overall residential environment.

Figure 2. Percent of sample (N=508) using food and nutrition services in 6 months preceding interview

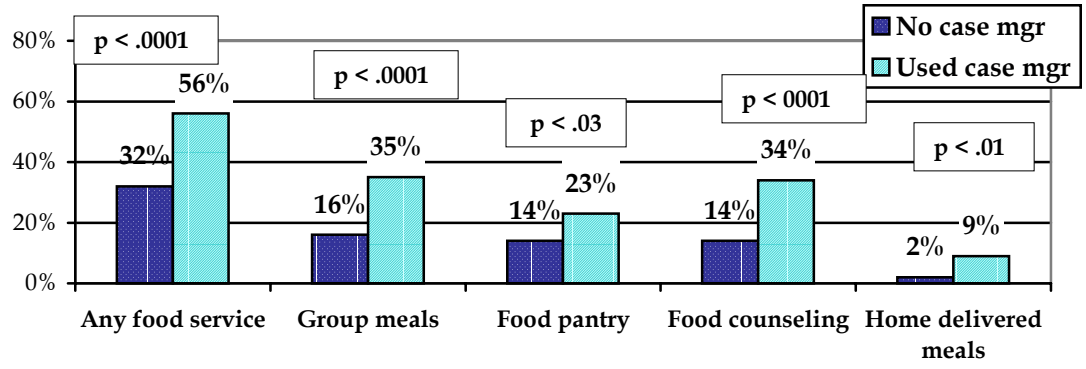


3. **Use of food and nutrition services is only weakly related to demographic characteristics or use of medical services, but is *strongly* related to use of case management services.**

There are few statistically significant ($p \leq .05$) differences in the use of food and nutrition services taken individually, or of any food and nutrition service, along the key demographic dimensions of gender and race/ethnicity. Minor (and statistically non-significant) differences among demographic groups are outcomes of demographic differences on key variables that are more closely related to service utilization. These differences are described in greater detail below.

Use of food and nutrition services is *not* significantly associated with use of *medical services*, as measured by use of an HIV provider and a routine medical provider over the preceding 6 months. This is not the case for social services, however. Having a *case manager* in the preceding 6 months is significantly associated with use of food and nutrition services individually and as a whole (Figure 3). Unfortunately, we cannot determine which came first: the use of case management or of food and nutrition services. An individual may be able to access some services precisely because of an existing case management relationship. This is probably the case in the use of home-delivered meals, as certification of medical necessity and professional referral are probably necessary for receipt of these services. In the case of group meals and food pantry utilization, the relationship may be the opposite. Individuals may start off using one of these relatively low-threshold services, and *then* be engaged in a higher level of services, such as case management.

Figure 3. Percentage of sample (N=496) using food services, by use of case manager in preceding 6 months



4. Those who *lack the facilities to* prepare their own meals are most likely to use food and nutrition services

Given the strong norms around home food preparation, we looked at participants' ability to prepare their own food as a measure of their possible *need* for food and nutrition services. A questionnaire item asked about access to a kitchen, allowing responses of "unlimited," "limited," "hotplate or microwave in room only," and "none." Most participants *do* have access to kitchen facilities: 90% report their access to a kitchen as "unlimited," 2% as "limited'; an additional 3% have the use of a hotplate or microwave. Only 5% report *no* access at all to kitchen facilities. This is not surprising, as most report living in apartments or homes, rather than in settings that usually lack kitchens, such as group or institutional quarters, SRO housing, or homeless facilities.

Use of *any* food and nutrition services is consistently and significantly *lowest* among those with unlimited kitchen access. These are the people who are presumably able to prepare their own meals, and so have little need for food services. Conversely, use of any food and nutrition service is *highest* among those with no kitchen use whatsoever (Figure 4). This illustrates the strong cultural preference for preparation of one's own meals, and the use of other meal sources only when facilities for individual meal preparation are not available, or as occasional complements to personal food preparation. Illustrating the role of kitchen facilities in improving the nutritional status in members of the cohort, consumption of 8 or more hot meals per week is also significantly related to access to a kitchen to prepare them (Figure 6).

The use of *individual* food and nutrition services is also significantly related to kitchen access and to a lesser extent to housing, that itself structures access to a kitchen. However, the *nature* of the relationship varies by *type* of service.

<u>*Group meals*</u> are most likely to be utilized by participants with little or *no* kitchen access. These are predominantly people living in non-apartment settings, who presumably use soup kitchens and similar meal settings. Those with no kitchen access also include those in corrections, residential drug treatment, or AIDS housing, where group meals are often part of the institutional framework. Group meals are also utilized by relatively high proportions of those with only *limited* kitchen access (many of whom are living doubled up or in similar situations), or with access only to a hotplate or microwave (a group that disproportionately includes participants in SRO and similar housing). This high level of use of group meal settings probably explains the high level of cooked-meal consumption among the group with *no* kitchen facilities, as group meal settings generally provide cooked meals. Relatively small proportions of those with unlimited kitchen access make use of group meals.

The use of group meals is significantly *higher* among respondents who live in Manhattan, Bronx, and Staten Island, *lower* in Brooklyn or Queens. Men are also significantly more likely than women to report use of group meals. These differences, however, are largely the result of differences by borough and gender in *access to kitchen facilities* (Figure 7). These, in turn, are resulted to the concentration of the sample's homeless and SRO-housing residents in Manhattan and the Bronx. Of the sample overall, 82% are housed in apartments or houses (even if doubled up). Of these apartment-dwellers, 98% report unlimited kitchen access. The remaining 18% are in other living situations (including welfare SROs, AIDS housing, drug treatment, shelters, streets, nursing homes, and correctional facilities). Of these who live in other settings, only 52% have unlimited kitchen access. While use of food and nutrition services is directly related to access to kitchen facilities, kitchen access is itself an aspect of housing situation.

Figure 4. Utilization of food services in 6 mos. preceding interview, by kitchen access (N=508)

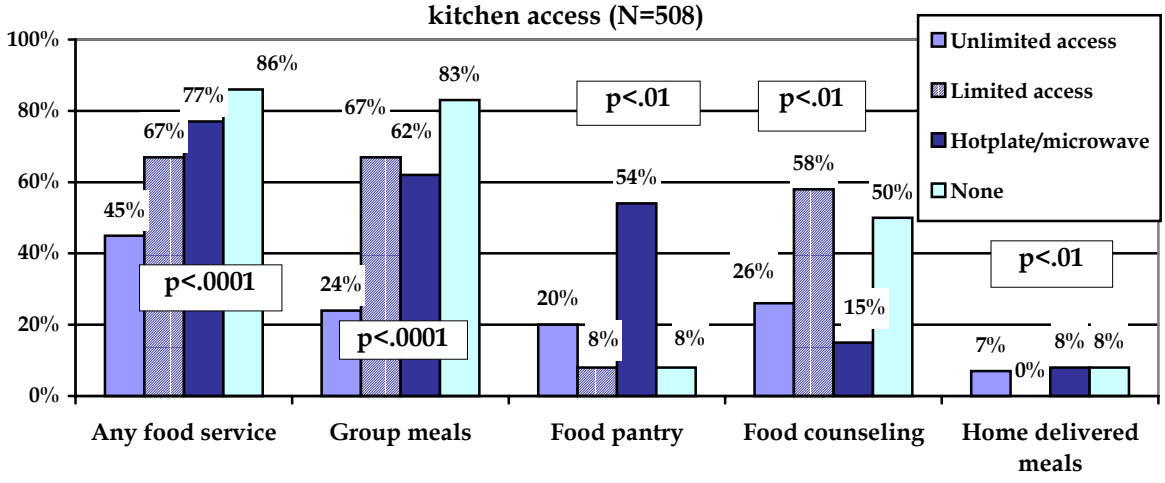
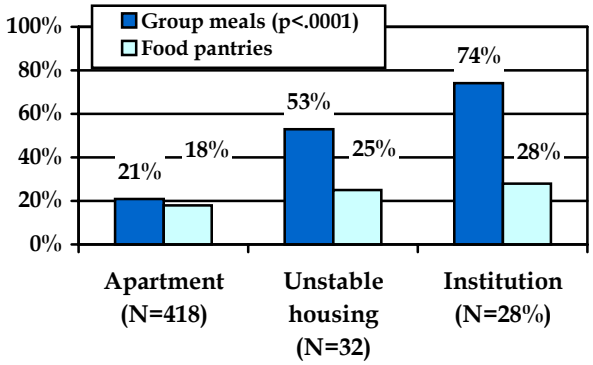


Figure 5. Percent of sample using selected services, by type of housing (N=504)



The comparison of living arrangement to the use of group meals and food pantries illustrates the complex relationships among housing, kitchen access, and service utilization.

We divided respondents on the basis of their living

situations into three groups: "Apartment" (whether own or doubled up), "Unstable housing" (SROs, homeless facilities, streets), and "Institutions" (chiefly drug treatment). Use of group meals is significantly ($p<.0001$) different among the three groups, highest among those in institutions (where meals were presumably provided by the institutions) and lowest among those in apartment settings, where there is less need for them. In contrast, there is little difference in use of food pantries by housing status (Figure 6).

Figure 6. Consumption of 8 or more hot meals in preceding week , and use of <u>any</u> food service in preceding 6 mos., by kitchen access (N=508)

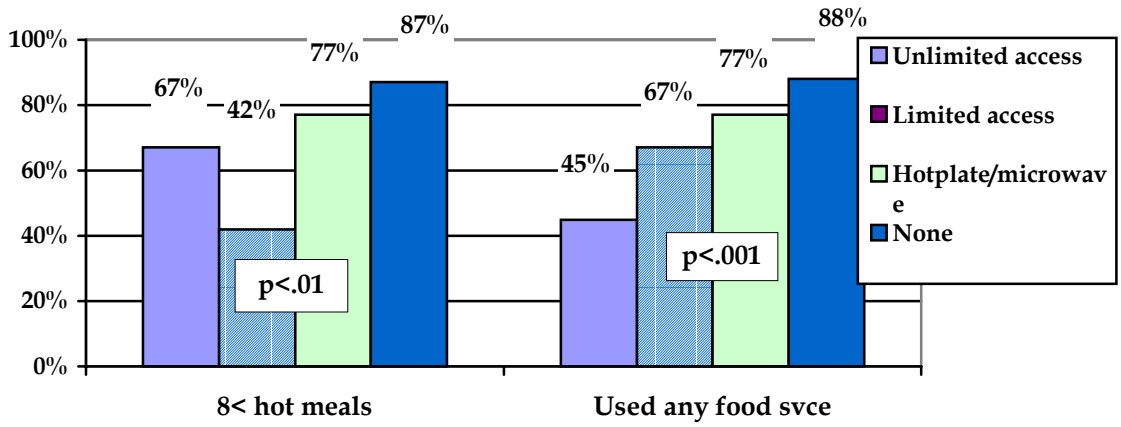
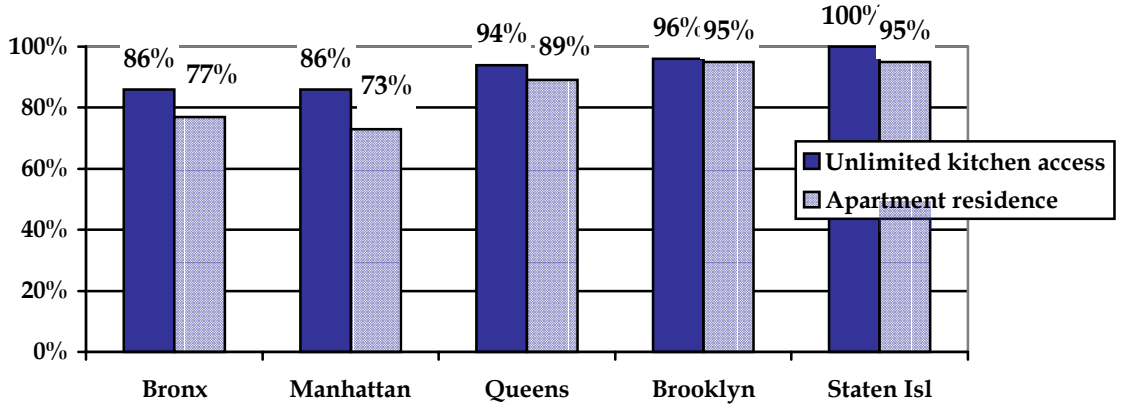


Figure 7. Percent of sample (N=508) with unlimited kitchen access, and percent living in apartment settings, by borough of residence



Food pantries display a different pattern of usage. The most likely users of food pantries are those with *some* kitchen facility, even if simply a hotplate or microwave. Individuals in these settings probably lack the funds to rent more than the most minimal accommodations, so they are likely to need or want assistance with food. On the other hand, they have *some* minimal cooking facilities, necessary to prepare many food-pantry items. Use of food pantries is significantly associated with being female (in turn associated with type of housing and kitchen access), and with residence in Manhattan or Staten Island.

Home delivered meals are the only service that shows *no* clear relationship to need, measured by access to kitchen facilities. Paradoxically, they are measurably ($p < .08$) *less* likely than others to be eating 8 or more cooked meals per week. Recipients of home-delivered meals are probably among the more debilitated in physical terms, supporting the interpretation that home-delivered meal services are related more to the recipient's personal condition and energy level than to access to facilities.

Food and nutrition counseling differs from the other 3 food and nutrition services examined, as it provides knowledge and skills about food and nutrition, rather than food itself. Food and nutrition counseling is, like all the other food and nutrition services examined, significantly associated with use of case-management services. However, they are *also* (unlike the other services) measurably ($p \leq .10$) associated with utilization of *medical* services (HIV provider and routine medical provider). In fact, these food-counseling services (such as instruction in proper diet to accompany particular medication regimens) may very well be a *component* of medical care.

With the exception of home-delivered meals, those living outside apartment settings (and thus having limited or no access to kitchen facilities), are disproportionate consumers of food and nutrition services, especially of group meals. This group living in non-apartment settings represents only 18% of the sample. They are, however, 39% of the consumers of group meals, 24% of the users of food pantries, 28% of those using food and nutrition counseling, and 17% of those receiving home-delivered meals.

CONCLUSIONS

The use of food and nutrition services is only moderate among our sample, and the patterns of use of each service differ. Higher utilization of these services is related primarily to:

1. Use of *case management services*, but not medical services.

2. The *lack* of basic food-preparation facilities (kitchen access), a factor more closely related to housing than to any type of service utilization. Apparent service-utilization differences by borough are the result of borough differences in housing and kitchen access.

Expressed need for food and nutrition services is modest, and consumption of cooked meals fairly high.

The availability of kitchen facilities to prepare one's own food is closely associated with the use of food and nutrition services: the lower the access to kitchen facilities, the higher the use of food and nutrition services. However, poor kitchen access is associated not only with food and nutrition services. It appears to be associated with results of those services. In general, poor kitchen access is *also* significantly associated with consumption of hot (and presumably nourishing) meals, meals probably provided by those services. New York is fortunate in having a relatively large and widespread network of food services available, and a large proportion of the HIV-infected are able to make use of them to improve their nutritional status.