

REGIONAL VARIATION IN THE USE OF HIGHLY ACTIVE ANTIRETROVIRAL THERAPY

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Background In many states, public formularies provide access to antiretroviral medications for HIV-positive patients, regardless of their ability to pay or social circumstances. Analyzing geographic and demographic variation in highly active antiretroviral therapy (HAART) usage is therefore vitally important in monitoring access and estimating population-level use rates, as well as identifying disparities among subgroups or populations. Data are presented on patterns of HAART use for New York City and the surrounding suburban Tri-County region of Westchester, Rockland and Putnam counties.

Methods Data were obtained from interviews conducted with HIV-positive adults in New York City and the Tri-County region who enrolled in the Client Study of the Community Health Advisory and Information Network (CHAIN). Data on respondents' demographic and HIV risk characteristics, health and social service needs and service utilization, and individual health measures are collected by trained community-based interviewers in a face-to-face interview. Each interview lasts approximately two hours and is repeated annually. The primary purpose of this longitudinal study is to serve as a planning and evaluation tool for the New York HIV Planning Council, which has funded the project since its inception.

The CHAIN study has established several representative cohorts of HIV-positive adults. The original New York City cohort was recruited in 1994-1995 and refreshed in 1998 from a stratified random sample of 43 medical and social service agencies. The cohort includes 968 individuals who have been interviewed as many as eight times through 2001. A second New York City cohort of 684 individuals was enrolled between 2002-2004 from a randomly selected sample of 32 medical and social service organizations. A similar sampling strategy was employed to assemble a

cohort of 398 HIV-positive individuals in the Tri-County region in 2001-2002, recruited from 28 medical and social service agencies. Analysis was restricted to 859 respondents diagnosed with HIV prior to 1998 who had an AIDS diagnosis. Among these 859 respondents, 650 were from New York City and 209 from the Tri-County area. Logistic regression analyses tested for geographic and demographic differences. All the interviews used in this analysis were conducted between 2000 and 2004.

HAART usage was determined by comparing respondents' self-reported medication regimens to federal HIV guidelines in effect at the time of the interview. Clients were considered to be "on HAART" if their reported medications fell into either the "recommended" or "alternative" regimens of the federal guidelines.

Results Overall, 66% of the New York City cohort and 64% of the Tri-County cohort were using HAART. Within Tri-County, 77% of Rockland County residents were on HAART, compared with 64% of those living in the more urbanized southern section of Westchester County and 57% of those living in the more suburban areas of northern Westchester and Putnam County. In a multivariate regression analysis examining a number of potential factors related to HAART usage, several strong factors emerged. Respondents in the most recent NYC cohort were 1.5 times as likely to be on HAART as were individuals in Tri-County or the older NYC cohort. And regardless of where they lived, men were 40% more likely than women to be on HAART, whereas unstably-housed individuals were 40% less likely to be on HAART than their stably-housed peers. This analysis controlled for such factors as race/ethnicity, education, illicit drug use, household income, insurance status, and recent opportunistic infection.

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Conclusions Although widespread, use of HAART is not equally reported among individuals in representative groups of HIV-positive adults in the New York metropolitan area. Differences in HAART use are related to gender, geography, and social stability. These differences suggest variations in medical practice, particularly as it relates to medication regimens. Given the potential for these medications to reduce mortality and morbidity, and to limit the further spread of HIV, these findings illuminate a need for more targeted consumer and provider education, particularly in the suburban areas.

About CHAIN CHAIN, originally proposed by the NYC Department of Health and the HIV Health and Human Services Planning Council of New York (New York HIV Planning Council), appraises the system of care in New York City from the perspective of people living with HIV and AIDS. Funded through a contract with MHRA beginning in 1993, CHAIN has evolved into one of the most comprehensive, client-based HIV cohort studies launched by any metropolitan area in the U.S. An MHRA scientist from the Research and Evaluation Unit has served as chairman of the CHAIN Technical Review Team (TRT) since the project's inception. The TRT, with representatives from MHRA, Columbia University, the New York HIV Planning Council and the Persons Living with HIV/AIDS Advisory Group, the New York City Department of Health and Mental Hygiene (Office of AIDS Policy Coordination, HIV Surveillance and Epidemiology Program and Ryan White CARE Services), and the Westchester County Department of Health, reviews the ongoing implementation of the CHAIN Client Study. The TRT assures both that CHAIN corresponds to the priorities of the New York HIV Planning Council through its relevance to the most important issues in HIV/AIDS service delivery, and that it maintains the highest level of technical and scientific integrity.

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An earlier version of this analysis was presented at the 11th Conference on Retroviruses and Opportunistic Infections, February 9, 2004, San Francisco, CA (text slightly modified here, to include information about CHAIN).

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