

HIV+ Youth in the Twin Cities may be Engaged in Case Management but not Retained in Medical Care

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Abstract

A subsection of HIV+ individuals (or clients) followed by case managers are often not retained in medical care, and are thus more likely to have a higher risk of transmission of HIV to sexual partners. We hypothesized that certain client characteristics and demographic factors may be responsible for this trend and designed an appropriate retrospective study. Statistical analysis was performed on demographic information and risk indicators of case management clients with the University of Minnesota's Youth and AIDS Projects (YAP). Clients were found to have a higher likelihood of being retained in medical care during their second year with YAP as opposed to their fourth year (96% and 58% respectively; $P = 0.013$). Additionally, non-African American clients were found to be less likely to be continuously retained in medical care than African-American clients (20% to 43% respectively; $P = 0.064$). Clients followed by the UMN Health Delaware Street clinic were more likely to be retained in medical care than those followed by other clinics ($P = 0.09$).

Introduction

The cascade of care is a phenomenon with an end goal of complete viral suppression; however, we may witness a significant loss of clients in each step of the cascade. According to the Centers for Disease Control, the largest gap in the cascade exists between an individual's linkage to medical care and his or her retention in care¹.

The University of Minnesota's Youth and AIDS Projects (YAP) were founded in 1989 with the aim to prevent the transmission of HIV within the youth community (ages 13-31) in the Twin Cities area. YAP provides multiple programs for management and prevention of HIV transmission, including case management, HIV testing, counseling, and risk assessment².

OVERALL: Of the 1.1 million Americans living with HIV, only 25 percent are virally suppressed.

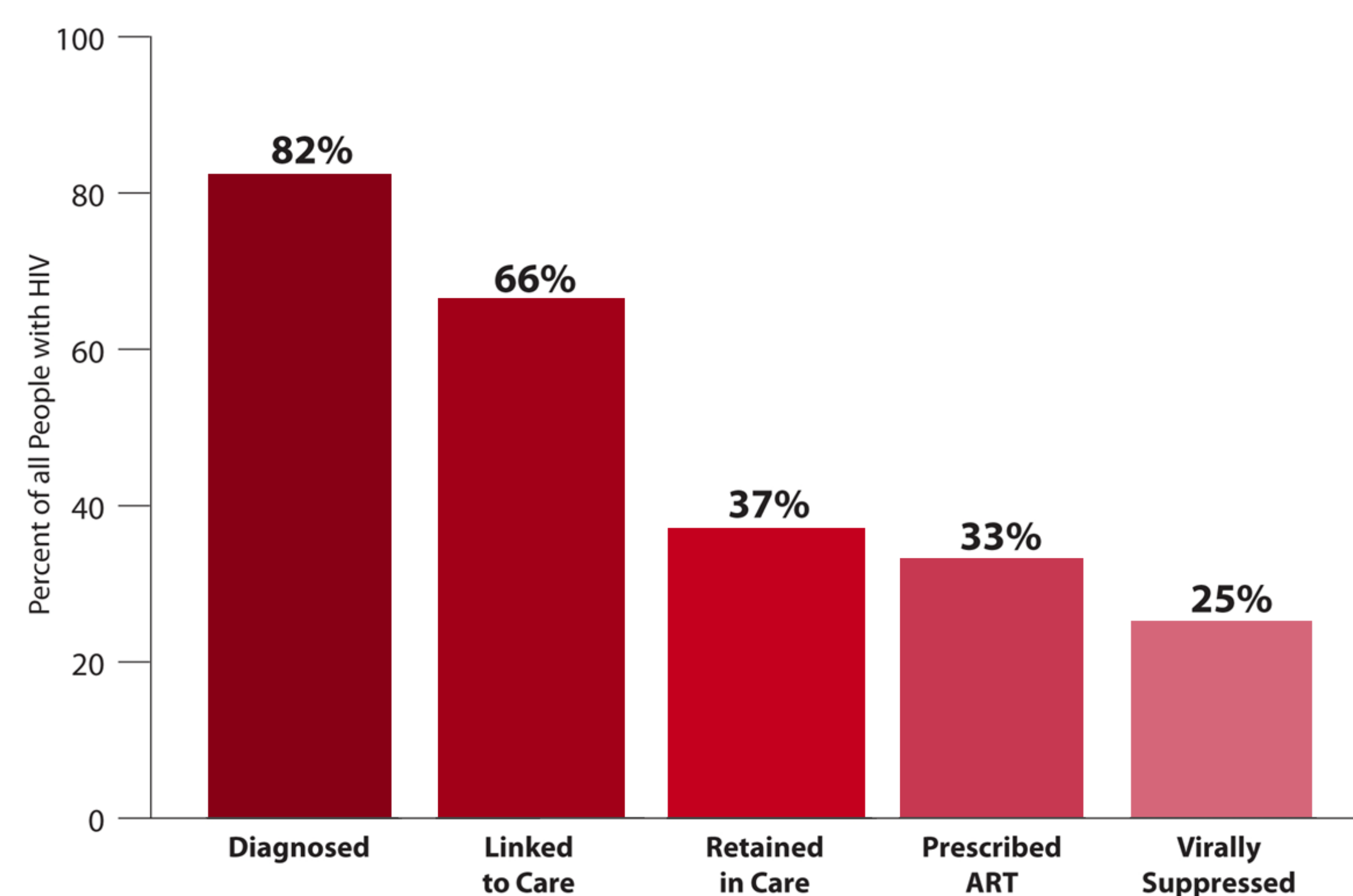


Figure 1. CDC Care Cascade¹

Methods

Obtained race, age, sex, and clinic data from YAP archives and Minnesota CAREWare.

Obtained Tier III risk indicators from medical case management acuity assessments: homelessness, CD4 count below 200 and viral load above 400, new HIV diagnosis, untreated mental illness, new to anti-retroviral therapy, re-engagement in care, non-adherence to HIV medication, substance abuse. Of note, select risk indicators were unavailable for some clients.

Performed cross-sectional association analysis between risk indicators for retained or not retained in medical care. Changes in outcome over time were analyzed using generalized linear mixed models for 2 year, 3 year, and 4 year intervals. P-values less than 0.05 were considered significant.

Results

Table 1. Cross-sectional Analysis for risk indicators from 2013-2016

Ethnic group, N (%)	Overall	Continuously retained in medical care since joining case management at YAP		P-value
		Yes	No	
African American	35 (58%)	15 (43%)	20 (57%)	0.064
Other	25 (42%)	5 (20%)	20 (80%)	
Retained in medical care				
Clinic, N (%)	Overall	Yes	No	P-value
Delaware St. Clinic	22 (61%)	17 (77%)	5 (23%)	0.09
Other	14 (39%)	7 (50%)	7 (50%)	

Table 2. Change in % retained in medical care over time

4 years engaged in case management (N = 24)	
Year	N (%) retained in medical care
1	18 (75%)
2	23 (96%)
3	15 (63%)
4	14 (58%)
P-value	Y2 vs Y4: 0.013 Overall 4-year trend: 0.069

Results

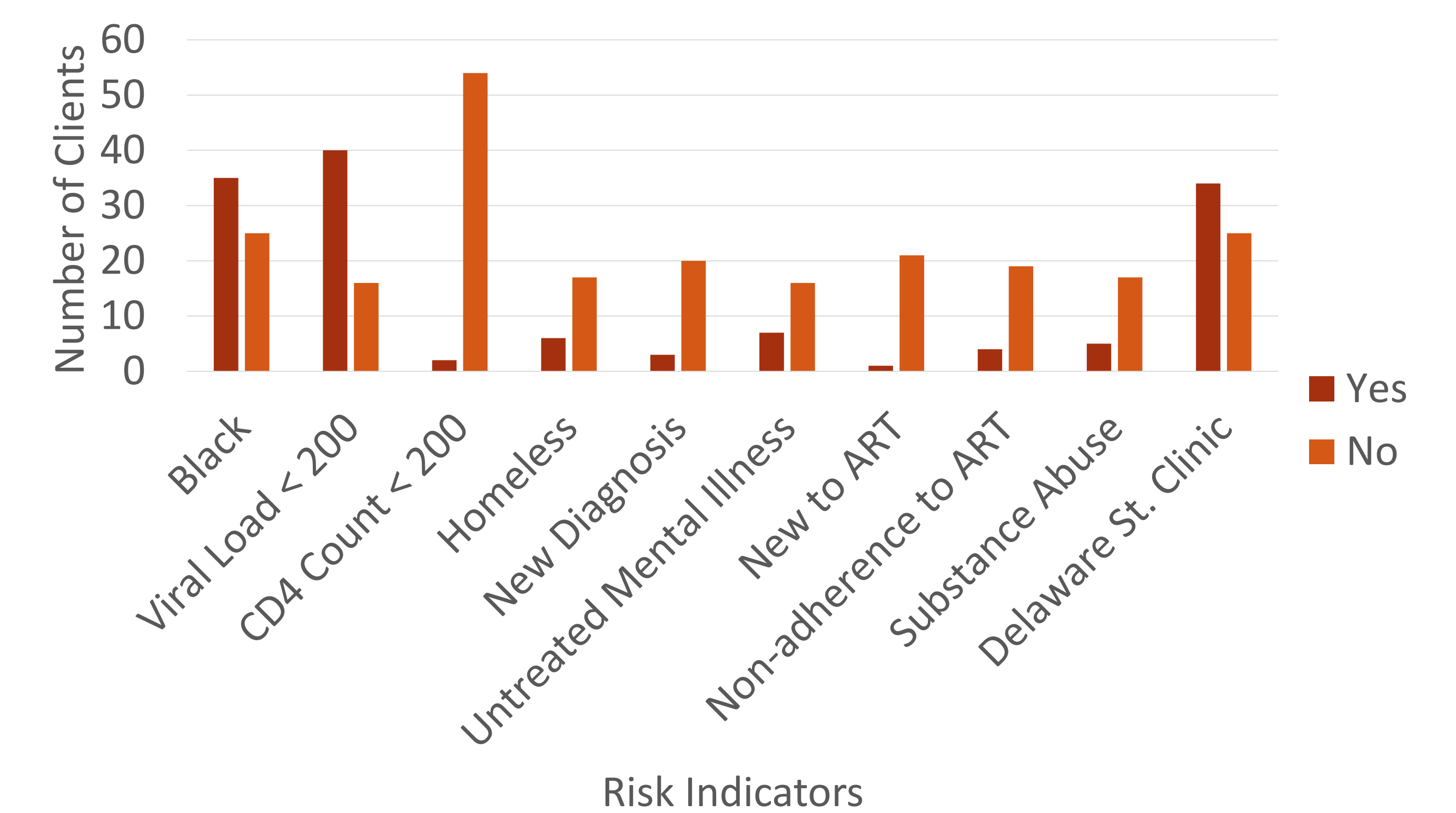


Figure 2. Risk Indicator Frequencies in the Study Population

Summary of Findings

Cross-sectional analysis shows a trend that clients who identify as African American are significantly more likely to be continuously retained in medical care while engaged in case management at YAP, as opposed to all other ethnic groups.

Cross-sectional analysis also shows another trend in which clients who are followed by providers at the UMN Health Delaware Street clinic are more likely to be retained in medical care than clients who are followed by other clinics.

The remaining risk indicators, as outlined above, were found to be statistically insignificant in both cross-sectional analyses, with P-values ranging from 0.1 to 1.0.

Analysis of change in client population outcome over four years shows with 95% confidence that clients in their second year with YAP case management are more likely to be retained in medical care than those in their fourth year.

Conclusions

There are a significant number of HIV+ youth in the Twin Cities who are engaged in case management and yet are not retained in medical care; to improve the outcomes of this study, a larger study population is necessary.

Cooperation between medical clinics should be encouraged so as to emulate the success of the Delaware Street clinic elsewhere. Additionally, areas of future research would include further investigation into the relationship between a client's ethnicity and his or her retention in medical care.

References

1. United States of America, U.S. Department of Health & Human Services, Centers for Disease Control and Prevention. (2014, November). *CDC Fact Sheet - HIV in the United States: The Stages of Care*. Retrieved April 5, 2018, from <https://www.cdc.gov/nchstp/newsroom/docs/factsheets/hiv-stages-of-care-factsheet-508.pdf>
2. YAP: Youth and AIDS Projects. (n.d.). Retrieved April 05, 2018, from <http://www.yapmn.com/>

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