

The Relationship Between Community and Interpersonal Violence (CIPV) and HIV Prevalence Among Black Women in Dallas, Texas

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ABSTRACT

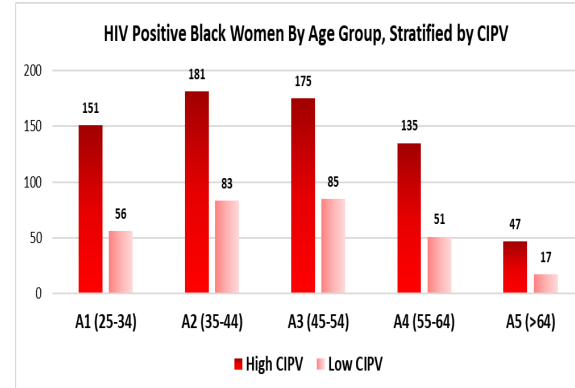
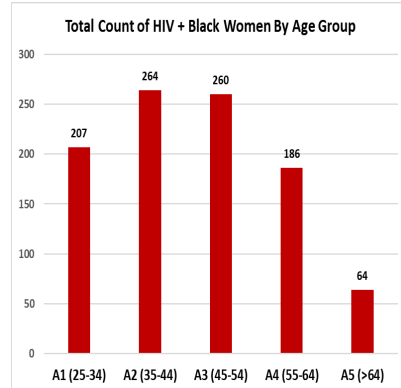
The association between increased risk for HIV infection and exposure to violence has been demonstrated in the literature for many decades. While experiences with violence are also known to be prevalent among Black women living with HIV (BWLH), there are few studies that present information on the relationship between violence, one of many syndemic factors in HIV acquisition risk, and HIV prevalence. Community and interpersonal violence (CIPV) is defined as the ratio of property and violent crime per capita and a higher level of CIPV has been shown to be a significant indicator of the inability to maintain optimal health for people living with HIV, especially for poor minority women. A previous study which looked at a Ryan White Part D funded cohort of Black women living with HIV in Dallas Texas, found a highly statistically significant relationship with $p = 0.009$, between where these women live and high levels of CIPV (Deas et al 2017, Unpublished manuscript.) This current study which consists of a cohort of all Black women living with HIV in Dallas, Texas, also found a highly statistically significant relationship between HIV prevalence and CIPV with $p = 0.018$. Combined, these findings predict that women living in areas with high CIPV may have unique challenges being retained in care and maintaining viral suppression, two key factors to maintaining optimal health for people living with HIV.

PURPOSE/ LEARNING OUTCOMES

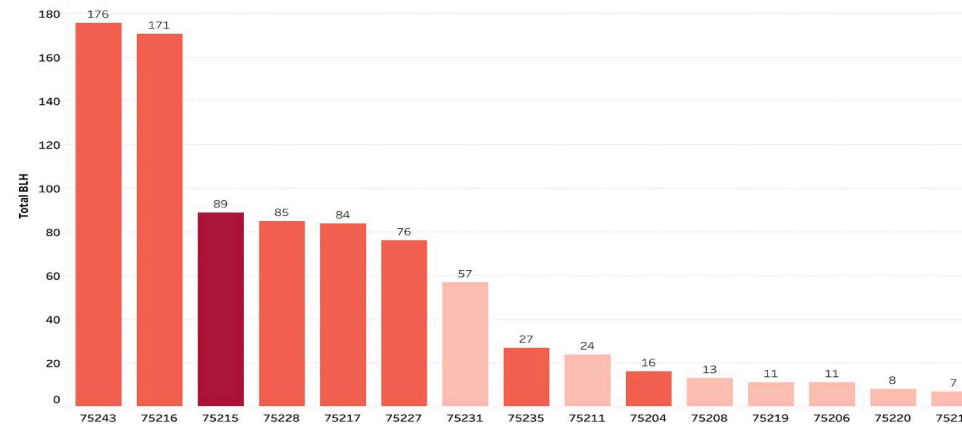
1. Apply artificial intelligence/machine learning techniques to evaluate the relationship between CIPV and HIV prevalence among Black women.
2. Identify the unique challenges Black women may have staying engaged in care in the context of CIPV in their home/community environments.
3. Create targeted prevention efforts to assess the risk of an HIV + diagnosis among HIV negative Black women in targeted zip codes.

METHODS

- Anonymized secondary data representing BWLH in 2018, were retrieved from the HIV Division of the State of Texas Department of Public Health. BWLH were randomly selected from this dataset.
- Data was then stratified by the top 5 cities for HIV prevalence, zip codes, and FBI violent crime data was gathered for those top 5 cities for the year 2018. Data for the city of Dallas is presented in this first part of the study.
- Multivariate logistic regression to determine if there was an association between zip codes and reported levels of interpersonal and community violence in this cohort.



CIPV/100K in Targeted Zip Codes - Total BLH, 2018



CONCLUSIONS

- There is a statistically significant relationship between the number of HIV + Black women and CIPV ($p = 0.018$) in Dallas, Texas.
- Almost 48% of our cohort are between the ages of 25-44, ~26% are in the 45-64 age range, and ~ 26% of our cohort are age 65 and older.
- Eighty-five percent of our cohort live in zip codes with high CIPV. Compared to the 2017 DFAN cohort where only clients age > 60 were far more likely to live with CIPV (80%), in this study **all** age groups represented were equally likely to live in communities with high CIPV at 85%.

NEXT STEPS

- Examine other SDOHs namely education and healthcare access, to see if a similar trend is present for the city of Dallas.
- Conduct a similar study to determine if there's a relationship between viral load (an important measure for good HIV status / health) and CIPV among BLWH in Dallas.

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