Mapping the Association Between HIV Viral Load Suppression and Accessibility To Expert HIV Medical Care and Poverty Rates By Census Tract Of Residence In Wisconsin

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BACKGROUND: Prolonged virologic suppression of HIV is associated with both improved health status in HIV-infected individuals and reduced risk of transmission.

METHODS: The study will include the census tract of last known residence for adult cases of HIV from the Wisconsin Enhanced HIV/AIDS Reporting System (eHARS). Cases will be included if they were living with HIV in Wisconsin, were 18 years of age, and were alive, during any portion of 2011. Cases will be assessed for HIV viral load suppression based on legislatively mandated laboratory-based reports of HIV viral load. Aggregate viral load data will be presented in quartiles, showing the relationship to accessibility to expert HIV medical care and to poverty rates of census tract of residence.

RESULTS: A total of 6,332 cases of HIV existed as some point in 2011. Of those, 3,574 (56.4%) were ‘in care’ as determined by presence of a lab report between July and December 2011 and of these, 2,203 had viral load suppression during the same time frame. Associations were found in race, gender and transmission category with the in care status (all p <0.001), however once in care, these predictors did not significantly correlate to viral load suppression. Individual case census tract poverty levels also found significant correlation with in care (p<0.001) with lower poverty being associated with higher percentages of in care status. Again though, once in care, poverty was not significantly predictive of viral load suppression.

CONCLUSIONS: Findings from this investigation will be used to identify medically underserved communities within Wisconsin and show how the status of an individual’s infection with HIV relates to community socio-demographic characteristics and proximity to expert treatment.