“Rural and Urban HIV Prevalence Comparisons in North Central Florida 2010-2011”

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## Abstract

***Objective:*** The objective of this study was to see whether or not there was a greater likelihood of having HIV depending on whether or not an individual lived in a rural or urban community.

***Methods:*** Using Florida’s Patient Reporting, Investigation, and Service Manager (PRISM), data were generated on individuals’ county of residence, HIV status, Chlamydia status, Gonorrhea status, age, race, and gender. Data were for the area 3 jurisdiction of the Florida Department of Health exclusively. The entire dataset consisted of 10,432 individuals. Data were imported and analyzed using the Centers for Disease Control and Prevention’s Epi Info 7 software. Odds ratios (OR) were calculated using an odds ratio formula, and 95% confidence intervals (CI) were calculated using OpenEpi, an online epidemiological resource. U.S. census data for the year 2010 were used for values necessary to calculate OR. Tables were generated to show the odds of having HIV in an urban county when compared to a rural county. OR for race and gender were also included, and tables for Chlamydia and Gonorrhea status were also generated.

***Results:*** Of the 10,432 individuals in this study, approximately 2,767 were located in rural counties while 7,665 were located in urban counties. Most of the individuals in this study were African American, were aged 20-24, and were female. Living in an urban community increased the odds of having HIV (OR = 1.017), but decreased the odds of having Chlamydia (OR = .990) or Gonorrhea (OR = .918) when compared to a rural community. However, none of these OR were statistically significant when referring to the CI. African Americans were more likely to have HIV (OR = 10.154), Chlamydia (OR = 7.509), and Gonorrhea (OR = 18.568) when compared to Whites. Females were less likely to have HIV (OR = 0.478) and Gonorrhea (OR = 0.999), but were more likely to have Chlamydia (OR = 2.001) when compared to males.

***Conclusions:*** Based on the results of this study, no difference between urban and rural communities as it pertains to HIV prevalence could be observed. However, this study appeared to show a disparity amongst race and gender. More research centered around rural and urban HIV comparisons is needed.