



## Pathology Biology Section - 2012

### G40 Firearm Suicide Demographics in Harris County, Texas

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After attending this presentation, attendees will have a better understanding of the rate of firearm suicides among the different racial groups in Harris County, Texas.

This presentation will impact the forensic science community by providing insight into the rate of firearm suicides among different racial groups, particularly Hispanics, in an urban setting with high firearm ownership rate.

Suicide continues to be a common cause of death among all ethnic groups in the United States and using firearms to complete suicides is the most frequent method. As has been previously documented, White and African American males are more likely to complete suicide by firearm than males of other ethnic groups. It has also been found that nationally, Hispanics have a lower overall suicide rate than either Whites or African Americans. Studies have shown that regions that have a high prevalence of firearm ownership have a higher rate of suicide by firearm over other methods.

The literature has had fewer assessments of Hispanic suicide statistics; however, given the growing population of Hispanics, confirming these results or finding regional trends is useful to better understand this segment of society. To that end, a review of the suicide cases in Harris County, Texas was performed to see if these national statistics were applicable, given both the large Hispanic population and the high prevalence of firearms.

All deaths classified as suicides by the Harris County Institute of Forensic Sciences from January 2006 until July 15, 2011 were reviewed for age, sex, race, and method of suicide. Statistical analysis using student chi-squared testing with contingency tables was performed. In line with previous research, a significance value of  $p < 0.05$  was used. All statistical analysis was performed using spreadsheet software. The total number of suicides classified during that time period was 2,411, with males comprising 1,827 or 75.6 percent and females comprising 584, or 24.4 percent. The ethnic composition was 1,610 White (66.8 percent), 434 Hispanic (18 percent), 261 African American (10.8 percent), and 106 Asian (4.4 percent). These numbers vary from the ethnic distribution of Harris County according to the 2010 census. The percentage population is as follows: White (33.0 percent), Hispanic (40.8 percent), 261 African American (18.9 percent), and 106 Asian (6.2 percent).

Statistical analysis shows that Hispanics in Harris County are less likely than both Whites and African Americans to commit suicide by firearm ( $p$  value  $< 0.04$ ). Results also show that females of all races are less likely to commit suicide by firearm than their male counterparts, confirming previous research. There was no statistical significance to women of any ethnicity using firearms. It was found to be statistically significant ( $p < 0.004$ ) that Hispanic men are less likely than men of all other ethnicities to use firearms to commit suicide. Interestingly, Hispanic women were just as likely as women of other ethnicities to use a firearm to commit suicide ( $p = 0.41$ ). It had been hypothesized that given the prevalence of firearms in this geographic area that both genders of all ethnic groups would be more likely to use firearms but the analysis did not show this to be the case.

These results were surprisingly in line with previously documented research. While this analysis does not provide any additional information on the trends in Hispanic suicide, it does confirm the national data from a region with both a prominent Hispanic population and a large population that owns firearms.

#### **Suicide, Firearms, Demographics**