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Violence Data: Considerations and Inconsistencies

Rebecca T. Filipowicz, MPH, MS, CHES, Bill Livingood, Ph.D., Nancy Winterbauer, Ph.D., Susan Coughlin, MPH, Ryan Marie Diduk, MPH, CHES, Kristi Stowers, BSH

Background

In the past year, violent crime has been at the forefront of public health concerns in Jacksonville, Florida, specifically with increased murders in 2006. Numerous reports have been created by special studies groups and the media to highlight and address this issue. Most of the emphasis has focused on the criminal nature of violence and secondary prevention strategies to combat the problem. The results of these studies have shown that crime had increased, specifically violent crime with an emphasis on murder. The Duval County Health Department embarked on a comprehensive analysis of crime statistics and health related data in order to evaluate the problem more extensively and potentially assess patterns of violence and factors that may contribute to violent acts. Overall, the analysis revealed a different pattern of violence, showing that Jacksonville is a relatively crime free city. These differences are largely due to inconsistencies in violence related data, specifically how data is classified, the extent to which it's analyzed and subjective interpretation of the data.

Objectives

The objectives of this presentation are to identify various sources of violence data; Discuss classification of violent crime; Describe differences in geographies related to crime; Discuss varying patterns of violence related injury versus death statistics; Describe different interpretations of similar data; and identify real trends versus insignificant variations in data

Various sources of data were abstracted and analyzed including but not limited to Census, Vital Statistics, Hospital discharge, Emergency Room, and Uniform crime statistics. Data for Jacksonville/Duval County were compared against other similar cities and counties. Rates and percents were calculated to adjust for population differences. Data were presented using line graphs for time series trends and bar graphs for group comparisons. Confidence intervals were also calculated to determine statistical differences between groups or years (see Figure 1). In addition, data were analyzed, graphed and mapped to show geographical, race, and gender disparities.

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Results and Conclusions:

The data investigation process revealed many inconsistencies and factors to consider when analyzing violence data. Results indicate: the need for analyzing violent crime separately instead of the entire violent crime index, and city and county data may yield different results depending on the size of the city area versus the county area (see Figures 2 and 3). In addition, data showed differences related to

classification of crime, such as homicide versus murder. Data also showed that the use of confidence intervals are relevant when assessing violence data over time and when describing disparities in a population. Due to the inconsistencies in violence related data, varying interpretations of the significance of the problem are made. It is important for investigators of the violence problem to consider these inconsistencies before yielding definitive and often times incomplete conclusions.

Figure 1.

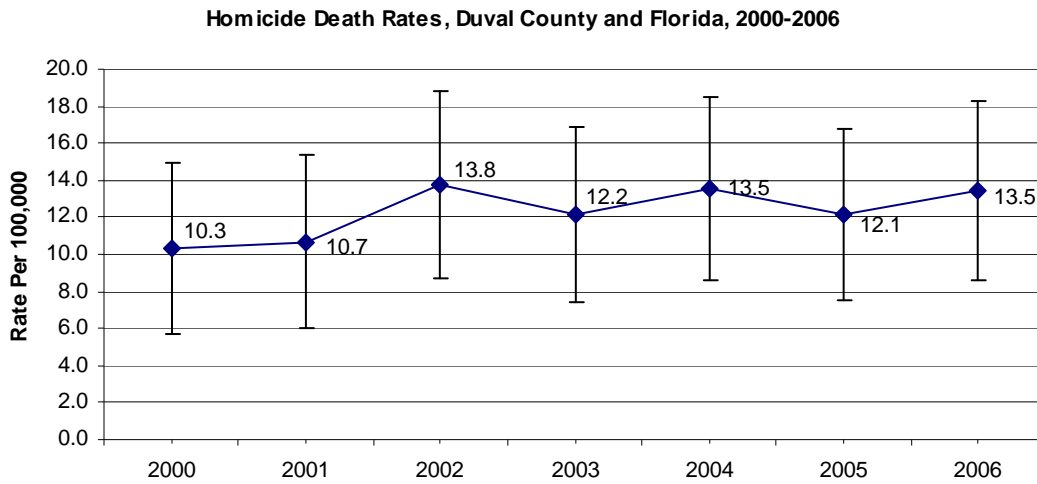
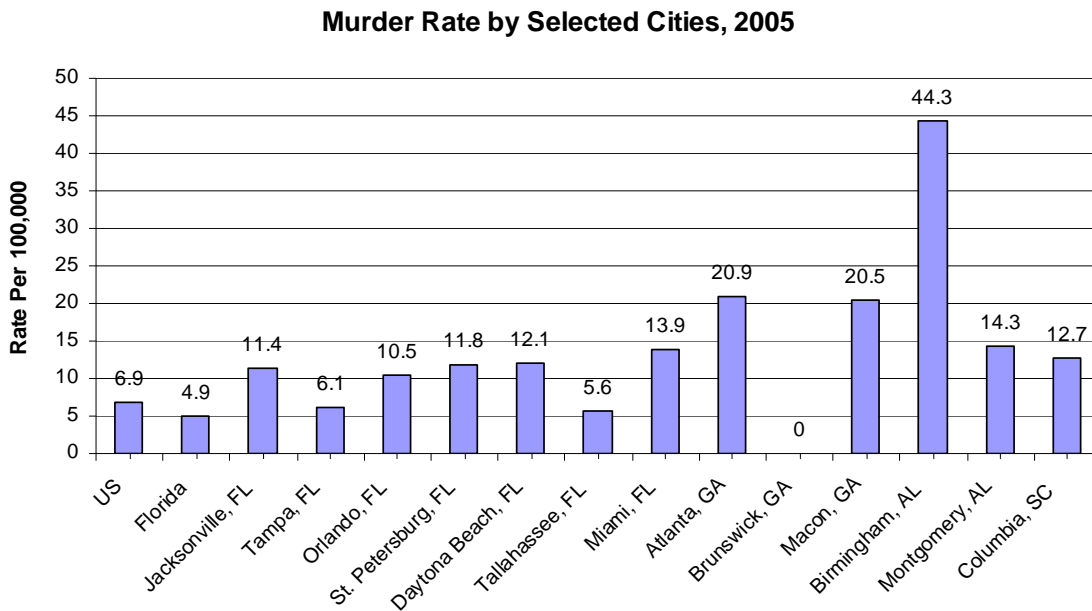
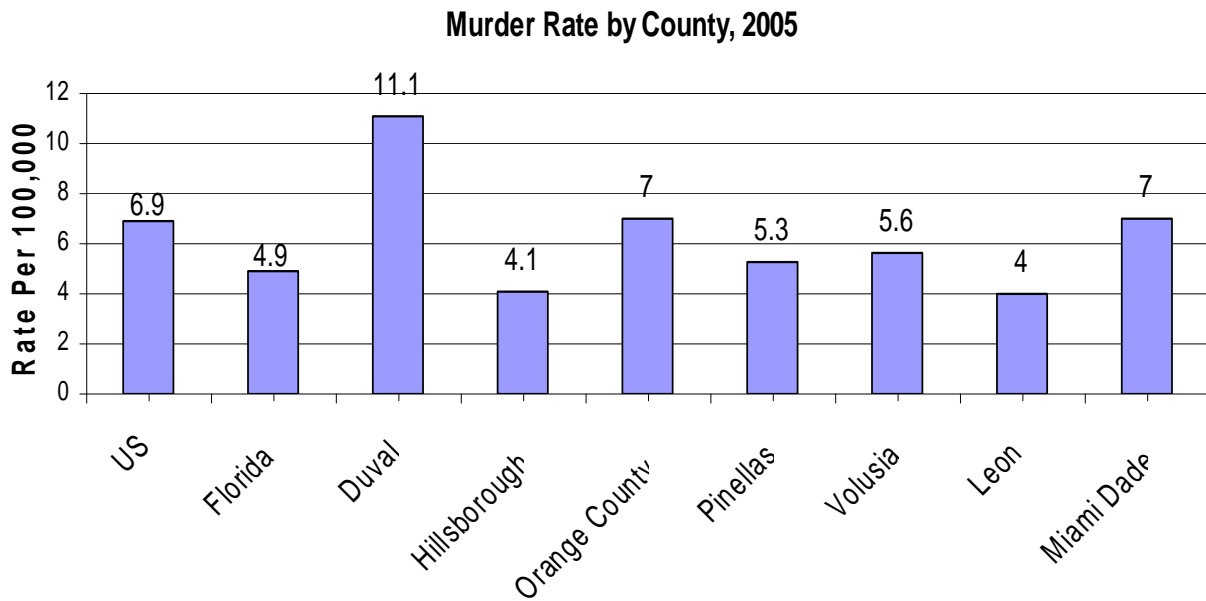


Figure 2.



Source: Department of Justice, Federal Bureau of Investigation, Crime in the United States, 2005
Prepared by: Institute for Health, Policy and Evaluation Research, February, 2007

Figure 3.



Source: Florida Department of Law Enforcement, 2005
Prepared by: Institute for Health, Policy and Evaluation Research, February, 2007