



## Pathology Biology Section – 2006

### G42 A Demographic Analysis of Youth and Teen Suicide in Maryland (1994-2003)

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After attending this presentation, attendees will be briefed on the analysis of trends regarding youth and teen suicide, which will assist in properly developing, placing and implementing suicide prevention strategies.

This presentation will impact the forensic community and/or humanity by demonstrating the trends regarding age, gender, race and methods of suicide among youth and teen age groups (age 10-19) in Maryland, which may assist in the application of suicide prevention strategies.

**Learning Objectives:** This is a retrospective epidemiologic survey of youth and teen suicide, ages 10-19, in the state of Maryland. Analysis of trends regarding age, gender, race and methods of suicide within this population may assist in the application of prevention strategies.

Suicide is the 11th leading cause of death in the United States, comprising 7% of all deaths. Adolescent suicide rates have continued to increase over the last several decades. There have been an increasing number of articles focusing on the epidemiology of suicide, showing the majority of suicide victims to be Caucasian males, followed by African American males, Caucasian females and African American females, in decreasing order of frequency. Fewer studies have focused on the trends of suicide in childhood. This report is a retrospective analysis of suicide in youth (age 10-14) and teen (age 15-19) age groups.

Suicide is the third leading cause of death between the ages of 10-19 years, comprising nearly 8% of all deaths, following only unintentional injury and homicide. In the state of Maryland, during the years of 1994-2003, there were 262 deaths between the ages of 10 and 19 in which the manner of death was determined to be suicide. The average age was 16.7 years. Youth suicide (age 10-14) accounted for 19.5% of these deaths.

In this population, 68% of suicide victims were Caucasian and 28% were African American, a ratio of approximately 2.5:1. This ratio is lower than that typically seen in the general population. This may be explained by the larger African American population seen in the state of Maryland when compared to the United States as a whole. Other races comprised 4% of suicide victims. As in prior studies on suicide, the majority of suicide victims were male (81%). The order, in decreasing frequency, remains Caucasian males (55.3%), African American males (24.4%), Caucasian females (14.1%) and African American females (4.6%).

Gunshot wounds and hangings, which steadily increased in frequency over the ten-year period, comprised the majority of methods of suicide (83%), consistent with that seen in the general population. A majority of fatal self-inflicted gunshot wounds occurred in the male population (41.6%), with 71.6% of these deaths resulting from contact gunshot wounds to the head or intra-oral gunshot wounds. 5.7% of female suicides resulted from gunshot wounds, approximately half of these due to contact or intra-oral gunshot wounds. Females were significantly more likely to commit suicide by drug intoxication than were males, though hanging was the most common method used. While the availability of firearms has significantly increased over the last decade, there did not seem to be a significant upward trend in the use of firearms to commit suicide in the youth and teen population. There did appear to be an upward trend in hangings. Drug intoxication and multiple injuries, falls from a height, accounted for an additional 10%, with carbon monoxide intoxication and drowning making up the remainder.

Regional evaluation of youth and teen suicide occurrence in the state showed a preponderance of cases in Baltimore County (16%) and Baltimore City (15%). Montgomery County and Prince George's County comprised an additional 23% of cases. The remaining 20 more rural Maryland counties had suicide rates ranging from 1-4%. While there has not been a significant increase in the overall number of youth and teen suicide over the last decade, it may be useful to more closely evaluate those counties, which have had a steady rise in suicides in this age group. Knowledge of risk factors and demographics for suicide in this population, and how they differ according to socioeconomic status will assist in appropriately placing and developing prevention strategies.

**Teen Suicide, Suicide Methods, Suicide Prevention**