

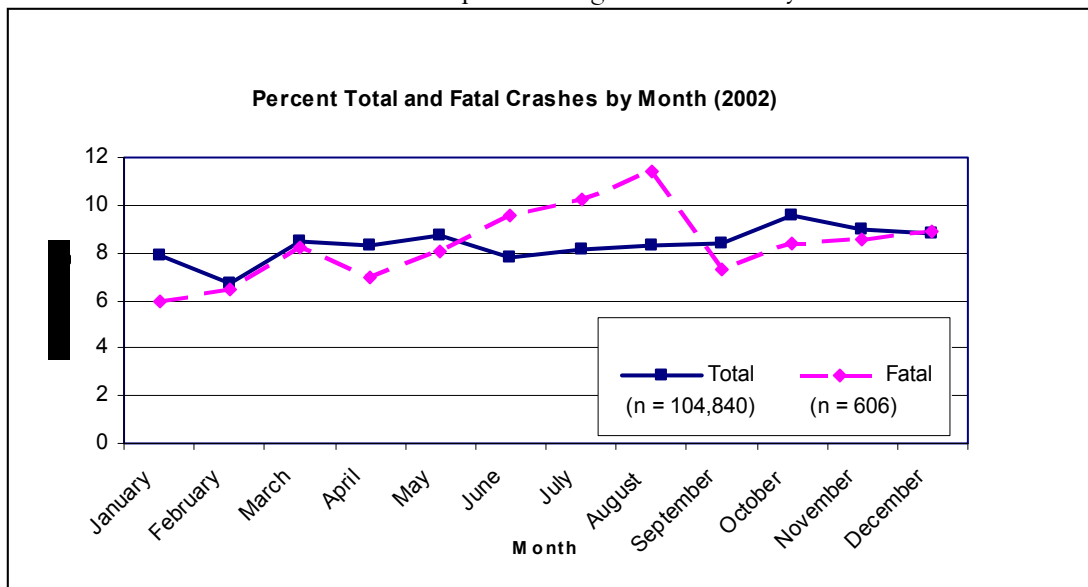
Population Based Study of Police-Reported Sexual Assault in Baltimore, Maryland

Objectives: To ascertain the population-based incidence of police-reported female sexual assault in Baltimore, Maryland, and to document alcohol/drug use and pre-event circumstances. **Design:** Between 1997 and 1999, a total of 1038 female assault victims (age ≥ 13) reported their incident to the police and presented to the city's only designated sexual assault treatment center. Data were obtained from a forensic narrative, which included details about the incident (pre-event circumstances, toxicology results, and documentation of injury). Population figures from 1998 were used to calculate incidence per 100,000 residents. **Results:** The calculated incidence of 117 sexual assault cases per 100,000 women (age ≥ 13 or older) was higher than the city's homicide rate for men of similar age (104/100,000). Seventy percent of patients were <30 years old; $>20\%$ were 13 to 16 years old. Half the study population did not know their assailant. Forty-seven percent of the entire group tested positive for alcohol/drugs. Over two thirds of victims were injured. Most women were walking/being followed before the assault; many others were assaulted at the home of a friend or relative.

Conclusion: In this population-based study, the incidence of female sexual assault was higher than the rate of male homicide. A higher proportion of women suffered physical/genital injury than reported in national surveys. Substance use was a significant clinical problem. Programs should provide supportive services and referral for treatment of substance abuse.

Summer Driving

In 2002, the proportion of fatal crashes increased steadily between April and August. Drive safely this summer.



SAVE THE DATE

Crash Injury Research and Engineering Network (CIREN)

Public Meeting

November 3-4

Baltimore, MD

Colin Mackenzie, MD
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pital

David Fowler, MD
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Jack Joyce, Esq.
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Hon. Joseph Kaplan
Judge, Circuit Court for
Baltimore City

Ellen MacKenzie, PhD
JHU Center for Injury
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Unless otherwise noted, information presented in Injury Watch is based on research and analysis conducted by National Study Center staff.

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"To prevent death and disability from injury and sudden illness through interdisciplinary research..."

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Have a suggestion for future topics? Let us know.

The Charles McC. Mathias, Jr., National Study Center for Trauma and Emergency Medical Systems (NSC) is an academic research organization dedicated to studying the causes, treatment, and outcomes of traumatic injury and sudden illness. The NSC is located on the campus of the University of Maryland, Baltimore. Since its creation in 1986, the NSC has earned an international reputation as a leader in trauma and emergency medicine research. The Center's strength resides in its teams of investigators and their expertise in study design, database linkages, interpretation of results, and application of findings. Results of NSC studies have been used to enhance patient care, to improve vehicular safety, to develop public education programs for the prevention of trauma, and to support state and federal legislation regarding injury prevention.

Positive Alternatives to Dangerous and Destructive Decisions

The Positive Alternatives to Dangerous and Destructive Decisions (PADDD) program in Maryland serves as a tool to reach out to surrounding communities and provide education to "at-risk" court-ordered offenders with the ultimate goal of injury prevention. This court-ordered program has had over 5,000 participants since its inception in 1992. Program evaluations have shown noticeable positive changes in attitudes toward drinking and driving habits. Post-test results indicated a 65% reduction in the number of participants who would likely run a red light in the future. Furthermore, 61% fewer participants anticipate failing to yield the right away to other drivers and there was a 50% reduction in the number of persons who previously reported driving too close to other drivers. Forty-two percent and 36% fewer participants would continue to drive 10 or more miles over the speed limit or make less frequent lane changes, respectively.

Longitudinal Study of Suicide After Traumatic Injury

The risk of suicide after discharge from a trauma center could be influenced by multiple factors. Particular subgroups of injured patients (e.g., those with spinal cord injury, traumatic brain injury, and posttraumatic stress disorders) are known to experience an increased rate of suicide. No longitudinal study has actually documented suicide rates among discharged trauma patients.

Objective: To establish whether patients discharged from a trauma center experience an increased suicide mortality rate and whether this can be explained by defined demographic, injury or substance abuse risk factors. **Methods:** Patients admitted between July 1, 1983, and June 30, 1995, and discharged alive from the R Adams Cowley Shock Trauma Center in Baltimore (N=27,399) were followed between 1.5 to 14.5 years. Comparison between general and trauma populations was performed using standardized mortality ratios (SMR). SMRs were calculated using the aggregated age, gender, and race-specific rates for the trauma and Maryland populations during the same follow-up period. **Results:** The mean age of the patients was 34 years. The cohort was mostly male (72.6%), white (68.5%), and alcohol negative at the time of injury (69.1%). Injuries were mostly blunt (86.7%), unintentional (80.7%) and of moderate severity (injury severity score ≤ 15 , 67.3%). The majority of patients were discharged home (77.9%). A total of 60 suicides occurred during the follow up period. The resulting suicide rate for our trauma population was 30.5 suicides per 100,000 compared with a rate of 10.6 per 100,000 for the referenced Maryland population. The expected adjusted number of suicides during the 14.5 year follow-up period was 35, indicating an SMR of 1.71 (60/35); (95% CI 1.34-2.20). SMRs for the alcohol positive and alcohol negative subpopulations were 2.58 (95% CI 1.82-3.68) and 1.26 (95% CI 0.87-1.83), respectively, indicating that the increased suicide rate in the alcohol positive subpopulation was predominantly responsible for the increase found in the overall trauma population. Kaplan-Meier curves revealed that the alcohol positive group experienced a higher incidence of earlier suicide when compared with the alcohol negative group ($p=0.02$). Using a Cox proportional hazards model, factors found to be predictive of suicide risk included age between 25 and 44, male gender, Caucasian ethnicity, positive alcohol toxicology and disability (as measured by discharge disposition). Injury severity, however, did not significantly increase the risk of suicide within the trauma population.

Conclusion: Suicide is significantly more common in the trauma than in the general population, even after adjusting for age, gender, and ethnicity. This difference seems to be primarily attributable to the population with alcohol problems. Predictors of suicide included age between 25 and 44, male gender, Caucasian ethnicity, disability and the presence of positive alcohol toxicology. Interventions that address modifiable risk factors for suicide (e.g., substance abuse, psychiatric disorders, hopelessness and social isolation) could potentially benefit the trauma population known to be at a higher risk for suicide.

Study performed in conjunction with Gabriel Ryb, MD, Atlantic City Medical Center.