

## D67 A Cause for Forensic Public Health: Prevention and Public Health in Two United States Forensic Journals

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After attending this presentation, attendees will understand the breadth and depth of prevention literature published by the forensic disciplines as reflected in the articles of two large United States forensic journals.

This presentation will impact the forensic science community by making attendees more aware of injury prevention and other widely available resources.

Interpersonal violence and unintentional injury exact high psychological, medical, and financial toll. Through analysis of 162 papers, literature review and personal interviews, it is found that the forensic community assists public health through data and advice provision and occasional (and rarely published) program implementation.

A full-text Medline search was instituted on January 2009 on two forensic journals (*Journal of Forensic Sciences and The American Journal of Forensic Medicine and Pathology*) for the terms "prevention" or "public health." The following data was collected: forensic discipline(s) involved (forensic pathology, forensic psychiatry, forensic sciences, forensic toxicology, jurisprudence/public policy, and

criminalistics/criminology); primary author's location and affiliation; injury mechanism or forensic topic discussed; manner of death discussed; relevant public health service provided (provision of risk factors, advice or direct service); and prevention content.

By forensic discipline, the number of articles related to forensic pathology leads by a wide margin (69%) followed by forensic psychiatry (13%) and public policy/jurisprudence (10%). Forensic toxicology, various forensic sciences, and criminalistics/criminology were discussed in 4-7% of the total papers. One odontology and one anthropology article were included in the ten under forensic sciences.

The leading forensic topic was child fatality (18%). Firearms and asphyxia/hanging (14% each), substance abuse (13%), and blunt force injuries (10%) were the leading stand-alone (single modality) mechanisms. Death certification and standards were discussed in 16 or 10% of the papers.

In terms of prevention or public health service, most papers offered risk factor establishment (96 or 59%) or helpful theory/advice (76 or 47%). Only six papers described a direct service and three were jail suicide prevention programs.

Accidents were the most discussed manner of death at 61 papers (37%). Categories of intentional death – homicides and suicides – were mentioned in 19% and 18%, respectively.

Majority of the readership of NAME and AAFS is U.S.-based, thus the North American predominance.

By specific institutional affiliation, medical examiner's offices were the most common source of material (21%) followed by academic forensic departments, and hospital departments of pathology (11% each). As one group, hospitals, hospital departments, medical schools/medical centers produced 36% or more than one-third of the papers. Medical examiners, coroners, and law enforcement groups wrote 23%; government and nongovernmental agencies, 20%; and universities, including academic forensic departments, 19% of the papers, respectively.

Extracted from the articles' prevention content, the following prevention suggestions are found across different manners and causes of death:

- 1. Limit firearm use
- 2. Promote mental health
- 3. Uphold and improve standards in surveillance, reporting and investigation
- 4. Avoid drugs and alcohol
- 5. Increase social support of vulnerable groups
- 6. Support rehabilitative measures in the legal or prison system
- 7. Decrease environmental risk (through self-protection or behavioral, environmental or product modification)
- 8. Maintain education, awareness and advocacy of preventable harm

Any interested parties should consider becoming more aware of their potential for injury prevention and utilize widely available resources. It is hoped that forensic professionals can optimize their knowledge and participation in injury and violence prevention work.

## Public Health, Prevention, Forensic Sciences