



H23 An Evaluation of Elderly Deaths: A Retrospective Forensic Autopsy Study in Maryland (2005-2015)

*Kendra Oghomwen Ireigbe**, 6 Witherwood Court, Apt 3A, Towson, MD 21204; *Allison Hausen**, 41 Dartmouth Road, Bridgewater, MA 02324; *Feng Shi, MS**, Dian Diagnostics, Forensic Science Institute, Hangzhou, CHINA; *Juan Ning, MD**, East China University of Political Science and Law, 112 Huayang Road, Shanghai 200046, CHINA; *Donghua Zou, MD*, Forensic Science Institute, Shanghai, CHINA; *Xiang Zhang, MD**, OCME, State of Maryland, 900 W Baltimore Street, Baltimore, MD 21223; *Ling Li, MD*, OCME, State of Maryland, 900 W Baltimore Street, Baltimore, MD 21223; and *David R. Fowler, MD*, OCME, State of Maryland, 900 W Baltimore Street, Baltimore, MD 21223

After attending this presentation, attendees will better understand the epidemiological characteristics of elderly homicides in Maryland.

This presentation will impact the forensic science community by providing insight into the risk factors of elderly homicide, vulnerabilities of the elderly, and characteristics of the suspects. This presentation will also assist the community in developing effective prevention efforts.

Since 1900, life expectancy in the United States has dramatically increased, and the principal causes of death have changed. At the beginning of the 20th century, many Americans died young. Most did not live past the age of 65, their lives often abruptly ended by one of a variety of deadly infectious diseases. But, over time, death rates dropped for all ages, most dramatically for the young. By the dawn of the 21st century, the vast majority of children born in any given year could expect to live through childhood and into their eighth decade or beyond. Elderly care and mortality have become an important public health issue.

According to the definition set by the Center for Disease Control and Prevention (CDC), an elder person is generally regarded as someone aged 60 years or older. The objective of this study was to evaluate the patterns of the causes of death among the elderly whose deaths were investigated by the Maryland Office of the Chief Medical Examiner (OCME). Maryland consists of 23 counties and Baltimore city with a population of 5,773,552, of whom 1,058,253 (18.6%) are aged 60 or older. A total of 4,528 elderly deaths were investigated by the OCME during 2005 to 2015. Of the 4,528 cases, 1,899 (41.9%) individuals died of natural causes, 1,908 (42.1%) were due to accident, 283 (6.3%) committed suicide, and 234 (5.2%) were homicide victims. There were 205 (4.5%) individuals whose manners of death could not be determined after thorough death scene investigations and complete postmortem examinations.

This study focused on the epidemiological profile of elderly homicides in Maryland. The number of elderly homicide deaths ranged from 13 in 2013 to 30 in 2015, with the average homicide rate of 1.63 per 100,000 population per year. More males than females were homicide victims with the ratio (*M: F*)=1.85:1. Of the 234 cases, 48% were White, 48% were African American, 2% were Asian, and 2% were Others, which included Hispanic, Native American, and Unknown. The motive behind the elder homicide was known in 73% (*n*=170) cases. The study revealed that robbery (*n*=45) is the most common motive, followed by altercation (*n*=41) and financial issues (*n*=15). Investigation revealed that of the 234 cases, the perpetrators were family members in 31.2% (*n*=73) cases and roommates, neighbors, or other acquaintance in 18.8% (*n*=44) cases. Therefore, 50% (*n*=117) of the perpetrators were known by the victims. Forty-two (17.9%) victims were killed by strangers, 13 (5.5%) by police, and the suspect was unknown in 62 cases (26.6%). There were 18 deaths involving homicide/suicide. Of the 18 deaths, six victims were killed by their husbands who then committed suicide, one was killed by the wife, one killed by a son, and one by a brother. The main causes of the homicides/suicides were either financial or health issues. The leading cause of death in elderly homicide was firearm injuries, followed by sharp force injuries and blunt force injuries. There were seven victims whose deaths were the result of neglect and/or abuse by their family members.

In conclusion, this study indicates that the elderly have a higher risk of being victims of domestic homicides. Understanding the vulnerabilities of the elderly and the characteristics of suspects and victims is the key to developing effective preventive measures.

Elderly Homicide, Abuse, Forensic Autopsy