



H35 Hurricane Harvey: Fatality Overview

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Learning Overview: After attending this presentation, attendees will have learned about the storm-related deaths in Harris County, TX, during Hurricane Harvey and the challenges of performing autopsies during a natural disaster.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by providing an overview of the deaths encountered in mass flooding, as well as associated circumstances and geography.

In August 2017, Hurricane Harvey made landfall in Texas and over five days dropped an average of 47.4 inches of rain across Harris County, nearly reaching the average annual rainfall for the county. It is estimated that over 600,000 cars and 150,000 structures were flooded, forcing 37,000 people into shelters. Using information collected by forensic investigators, medical examiners, and forensic anthropologists at the Harris County Institute of Forensic Sciences, 37 flood-related deaths between August 26, 2017, and September 15, 2017, were reviewed for trends in decedent demographics, location found, and circumstances of death.

Of the 37 confirmed deaths, 34 were classified as drownings, and the 3 remaining deaths consisted of a natural death and two storm-related accidents. Of the 34 drowning deaths, 25 were male and 9 were female with ages ranging from 6 to 84 years. Of the drowning deaths, five individuals were recovered indoors, and the remaining 29 were found outdoors. Of the decedents recovered outdoors, 14 were found in or near a vehicle (six of these deaths were located in a single van that was swept off a roadway by rising water) and six were found in or near a body of water following two separate boating accidents. Both boating accidents involved volunteers attempting to aid in rescue efforts. Of the individuals recovered indoors, two were found at their place of employment and two were found in their residences.

There were multiple obstacles to forensic evaluation during the natural disaster, including inaccessibility of scenes and decedents during active flooding, movement of decedents by currents, and issues regarding identification of decedents. These issues and the strategies used to navigate them will be discussed.

Planning and construction are underway in Harris County and surrounding counties to improve drainage and flood warning systems based on areas impacted by high-water levels; however, fatality analysis provides a unique approach to identifying high-risk areas and trends. The information gathered above will be compared to Harris County Flood Control District data on nearby bodies of water and their corresponding watershed zones and floodplains to identify fatality risk areas that could aid in city planning and education.

Flood, Disaster, Hurricane Harvey