



### H146 Suicides in Cook County, Illinois: A Four-Year Retrospective Study From 2015 to 2019

Reema Khan, MD\*, Chicago, IL 60612; Stephanie Powers, MD, Chicago, IL 60612; Ponni Arunkumar, MD, Cook County Medical Examiner's Office, Chicago, IL 60612

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**Learning Overview:** After attending this presentation, attendees will understand the trends seen in Cook County, IL, with respect to the mechanism, seasonal variation, and demographics of suicides.

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community by highlighting mechanisms more prevalent in a particular demographic set and preventative measures that could be applied.

According to the Centers for Disease Control and Prevention, nearly 45,000 lives were lost to suicide in 2016 and suicide rates have increased by more than 30% in more than half of the states since 1999. Suicide is the tenth leading cause of death in the United States since 2008. Suicide mortality trends have been proven to be a beneficial public health tool. Determining high risk areas, gender prevalence, and mechanisms could assist in better allocating resources for suicide prevention. Also, this data could potentially be extrapolated and applied to other metropolitan regions as trends at the county level have been largely unexplored to date. The relationship between adverse socio-economic circumstances and suicidal behavior is well established; however, the impact of adverse collective circumstances, such as the socio-economic context where people live, is less well understood.

A retrospective search of the Cook County Medical Examiner's Office database from 2015 through April 2019 was performed for decedents in which "Suicide" was the manner of death. The case files and recorded demographic data, as well as cause of death, mechanism of death, and month of occurrence were reviewed.

**Results:** A total of 2,003 suicide cases were identified from January 2015 to April 2019 in Cook County. The top five most prevalent suicide mechanisms were hanging (673 cases), gunshot wounds (632 cases), overdoses (228 cases), jump from height (111 cases) and train-related fatalities (82 cases). A majority of the suicides occurred in the city of Chicago, as compared to the suburbs. The ages ranged from 11 to 94 years. There was a greater prevalence of suicides in males as compared to females, with 473 females and 1,530 males (1:3 ratio). The number of suicides per year was relatively stable over the course of the study period, ranging from 436 to 481 fatalities. The detailed results of the study will be presented to attendees.

**Conclusion:** Mapping county-level suicide rates provides greater granularity in describing geographic patterns of suicide and contributes to a better understanding of changes in suicide rates over time. Findings may aid in better targeting prevention efforts as well as contribute to future research on community-level risk and protective factors related to suicide mortality.

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#### Suicide Trends, Demographics, Suicide