Every year in Orange County about 2,800 residents intentionally harm themselves seriously enough to require medical treatment and 278 end their lives by suicide. Intentional self-harm is a serious public health problem that has a devastating impact on those affected, including family, friends, and the community. In addition to the social costs, the economic costs of medical/psychiatric treatment for self-inflicted injuries are over $60 million dollars per year. To better identify those at risk and prevent such needless tragedies, this study examined emergency department (ED) and hospital patient discharge records (PD) to characterize self-inflicted injuries. The circumstances concerning suicides were analyzed in the county mortality data for the years 2009-2011.

**KEY FINDINGS OF THE STUDY**

From January 2009 through December 2011, 8,173 county residents were treated in the emergency department as a result of a self-inflicted injury. Over half (51%) were subsequently hospitalized (n=4,516). About 91% of all self-harm cases were non-fatal.

**SELF-INFlicted INJURY**

Six out of ten people who intentionally harmed themselves were female. On average, 1,664 females and 1,060 males per year were treated in the ED. Females 10-24 years of age were the most likely to intentionally hurt themselves (avg=689/yr); accounting for one quarter (25%) of all ED/PD cases. The number of cases systematically declined with age for both genders.

The majority (65%) of self-inflicted injuries were due to poisoning by a solid or liquid substance (i.e., overdose). The second most common mechanism of self-harm was the use of a cutting/piercing instrument (24%). Hanging/strangulation (2%), jumping from a high place (1.1%), and firearms (0.4%) were utilized less frequently in such injury cases.

At least 80% of the victims treated in the ED/PD had a known mental illness (e.g., schizophrenia or mood disorders) and/or a substance use problem; two key risk factors for self-inflicted injury and suicide. ED/PD treatment costs in Orange County are estimated to be at least $60 million/year and psychiatric hospitalizations over $5 million/year.
**SUICIDE DEATHS**
On average, 278 people ended their lives each year - a total of 835 residents between 2009-2011. While females were more likely to intentionally injure themselves, males were almost three times more likely to die by suicide - accounting for 75% of all suicides.

Middle-aged males, 45-54 years accounted for the highest number of suicides each year (avg=50/yr). For females, 45-54 year olds also had the highest average number of suicides per year (avg=15/yr).

The use of firearms (n=277 of 835 suicides; 33.2%) was the most frequent mechanism (external cause) of self-inflicted injury resulting in death, followed by hanging, strangulation and suffocation (33.1% of all suicides; n=276). Importantly, the latter mechanism increased nearly 35% over the previous three-year period. Males were more likely to use highly lethal methods.

By comparison, females utilized less lethal means; they were more likely to end their life through the use of poisoning by solid/liquid substance (i.e., overdose; 40% of female cases). Poisoning was the third most common mechanism overall (23%), with an average of 35.3 males and 27.3 females utilizing this method each year.

**GEOGRAPHIC PATTERN OF SUICIDE DEATHS**
A geographic analysis of the ZIP code of residence of all suicide deaths in Orange County for 2009-2011 showed a higher rate of suicide deaths in some cities such as Laguna Beach, Dana Point, Newport Beach, Fullerton, and Rancho Santa Margarita.

If you are feeling suicidal or if you are concerned about someone, there is help available right now. Call the **Suicide Prevention Line** at 877-727-4747 for 24-hour, immediate, confidential over-the-phone suicide prevention services. Also visit www.suicideispreventable.org to learn about the warning signs and what to do if you are concerned about a loved one.