There were a total of 3,613 self-inflicted injury cases among teens between 2009 and 2013, of which 65 were fatal. The countywide age-specific rate of self-harm ED visits for teens was 156.3 per 100,000. The female rate of 222.4 was more than 2.5 times the rate of males (92.9).

On average, over 700 teens were treated in the ED each year, with the majority (70%) being female. Female counts of self-inflicted injury steadily increased 41% starting in 2010 to over 600/year in 2013. Male counts remained relatively stable over the five-year period, averaging about 216/year.

Poisoning by a solid or liquid substance, followed by cutting and piercing were the two most common mechanisms of self-inflicted injury, and together they accounted for 88.6% of all cases. Other less common mechanisms included hanging and suffocation, jumping from a high place, and firearms.

Female teens had markedly higher numbers of poisoning and cutting/piercing ED visits compared to males.

Of the teens admitted for hospitalization (n=1,511), 87% were diagnosed to have a mental illness. The most common of which were episodic mood disorders (e.g., bipolar and major depression), substance use disorders (e.g., alcohol/drug abuse, substance-induced disorders), and anxiety disorders. The average length of stay per hospitalization was 4.6 days, and cost $23,000. For those only treated in the ED, the average cost was about $2,000 per case. In total over $38.5 million dollars was spent on the treatment of self-inflicted injury by teens from 2009 to 2013.
SUICIDE DEATHS
A total of 65 teens died by suicide between 2009 and 2013, averaging 13 cases per year. In direct contrast to self-inflicted injury, 70% of suicide cases were male. The suicide rate for males was 4.0 per 100,000 which was more than double the female rate of 1.7 per 100,000.

Hanging and suffocation was the most common mechanism of suicide and occurred in more than half of all cases (53.8%). Firearms was the second most common (23.1%), but was used exclusively by males. Jumping from a high place and poisoning were the second most common mechanisms used by females.

A list of twelve risk factors that influence suicide were abstracted from the Coroner case files. Some of the most prominent factors included mental illness symptoms, diagnosed mental illness, history of self-inflicted injury, history of substance abuse, and/or school/job conflict. On average, each teen had 4.5 risk factors.

The twelve risk factors were categorized into one of three major categories or classified as a planning/intent factor. The three major categories were Personal Circumstances, which described the mental and physical health of the decedent, Interpersonal Circumstances, which reflected the decedent's relationship with others, and External Circumstances, which included environment-related factors such as a school problem or law enforcement involvement.

Personal Circumstances occurred among all females and 84% of male teens. More females (89%) also had Interpersonal Circumstances compared to 67% of males. In contrast, male teens had more External Circumstances such as school problems or criminal justice issues (69%), compared to 65% of female teens.

GEOGRAPHIC PATTERN OF TEEN SELF-INFlicted INJURY & SUICIDE DEATH
The age-specific rate of self-inflicted injury by city showed a clustering of high rates in the southern and western parts of the county. Suicide counts (red dots) did not reveal any clear pattern and did not correlate with self-inflicted injury rates. The one exception was San Clemente that had both a relatively high self-inflicted injury rate and a high suicide count.