Dear Reader,

Community Health Improvement Partners (CHIP) is pleased to present its latest 10-year suicide data report, *Suicide in San Diego County: 1998 - 2007*, a project of the CHIP Suicide Prevention Committee.

CHIP is a collaboration of San Diego health care systems, hospitals, community clinics, insurers, physicians, universities, community benefit organizations and the County of San Diego. The partners of CHIP are dedicated to achieving optimal health for San Diego County's communities through collaboration and assessment.

This report draws on the epidemiological support of the County Health and Human Services Agency's Division of Emergency Medical Services (EMS) to provide a picture of suicide in San Diego County from information in the Medical Examiner's Database and other available sources. The Office of the Medical Examiner is charged with investigating and determining the cause of death in all homicides, suicides, motor vehicle fatalities, occupation-related deaths, drug abuse deaths, and certain deaths due to apparent natural causes.

Information about suicide, like that presented in this report, helps us understand and track the suicide problem from both a regional and a state/national perspective as we embark on strategies to reduce it. This information also serves to promote public awareness of the magnitude of the suicide problem and the need for broad-based support for suicide prevention.

CHIP would like to acknowledge the contribution of the Division of Emergency Medical Services staff for their help in the preparation of this report. Special recognition is extended to Alan Smith, Ph.D., M.P.H., EMS Epidemiologist, who co-authored this report. His scholarship and dedication to this endeavor is very much appreciated.

We hope you find this report useful.
Sincerely,

Beth Sise, JD, RN, MSN, CPNP  Carol Skiljan
Co-Chair  Co-Chair
CHIP Suicide Prevention Committee  CHIP Suicide Prevention Committee
## Table of Contents

CHIP’s Message ......................................................................................................................................................... ii

Introduction ..................................................................................................................................................................... vii

Section 1: All Ages

Leading Causes of Non-Natural Death ................................................................................................................................. 1
  Table 1.1: Leading Causes of Non-Natural Death by Age Group of Victim, County of San Diego, 1998 – 2007

Suicides by Age Group and Year .......................................................................................................................................... 2
  Suicide in Children 14 and Under
  Table 1.2: Suicides by Age Group and Year: 1988 – 2007
  Table 1.3: Suicide Rates by Age Group and Year: 1988 - 2007

Comparison with California and the United States ........................................................................................................ 3
  Figure 1.1: Age-Adjusted Suicide Rates, San Diego, California, and the U.S., 1979 - 2005

Suicide by Age and Gender ............................................................................................................................................... 4
  Figure 1.2: Suicide Rates by Age and Gender
  Table 1.4: Suicides by Age and Gender

Race/Ethnicity ................................................................................................................................................................. 5
  Figure 1.3: Suicide Rates by Race/Ethnicity: 1998 - 2007
  Table 1.5: Suicides by Race/Ethnicity and Gender

Suicide Methods............................................................................................................................................................... 6
  Figure 1.4: Suicide Methods
  Figure 1.5: Suicide Methods by Year, 1988 – 2007 ....................................................................................................... 7
  Table 1.6: Suicide Methods by Year, 1988 – 2007

Month ............................................................................................................................................................................. 8
  Figure 1.6: Average Number of Suicides per Day, by Month, San Diego County, 1998 - 2007
  Table 1.7: Suicides by Month and Gender

Murder-Suicide ............................................................................................................................................................... 9
  Figure 1.7: Characteristics of Murder-Suicides, San Diego County, 1988 - 2007
Contents

Toxicology by Gender .......................................................................................................10
  Table 1.8: Toxicology Results by Gender, All Ages, 2000 - 2007
  Figure 1.8: Toxicology Results for Alcohol and Drugs of Abuse by Gender, All
  Ages, 2004 - 2007

Toxicology by Suicide Method.................................................................11
  Table 1.9: Toxicology results by Suicide Method, All Ages, 2000 - 2007

Geographic Distribution .................................................................12
  Figure 1.9: Suicide Rate: San Diego County by Health Service Region:
  All Ages, 1998 – 2007
  Table 1.10: Suicides by San Diego County Health Service Region, 1998 - 2007

Section 2: Adolescents and Young Adults

Comparison with California and the United States..........................13
  Figure 2.1: Suicide Rates, Age 15-24 Years, San Diego, California,
  and the U.S., 1979 - 2005

Youth Risk Behavior Survey ..............................................................14
  Figure 2.2: San Diego Youth Risk Behavior Survey, Percent of Students Who
  Attempted Suicide in the Previous 12 Months

Annual Rates .........................................................................................15
  Figure 2.3: Annual Suicide Rates by Gender, Age 15 – 24 Years
  Table 2.1: Annual Suicide Number and Rate, Age 15 – 24 Years

Race/Ethnicity ......................................................................................16
  Figure 2.4: Suicide Rates by Race/Ethnicity, Age 15 – 24 Years
  Table 2.2: Suicides by Race/Ethnicity and Gender, Age 15 – 24 Years

Suicide Methods ..................................................................................17
  Figure 2.5: Suicide Methods, Age 15 – 24 Years

Month ..................................................................................................18
  Figure 2.6: Suicides by Month, Age 15 – 24 Years

Toxicology by Gender .........................................................................19
  Table 2.3: Toxicology Results by Gender, Age 15 – 24 Years, 2000 – 2007
  Figure 2.7: Toxicology Results for Alcohol and Drugs of Abuse by Gender,
  Age 15 – 24 Years, 2004 – 2007

Toxicology by Suicide Method ............................................................20
  Table 2.4: Toxicology Results by Suicide Method, Age 15 – 24 Years,
  2000 - 2007
Section 3: Working-Aged Adults

Comparison with California and the United States

Annual Rates

Race/Ethnicity

Marital Status

Suicide Methods

Month

Toxicology by Gender

Toxicology by Suicide Method

Geographic Distribution
Contents

Chapter 4: Older Adults

Comparison with California and the United States.................................................................31
  Figure 4.1: Suicide Rates, Age 65 Years and Older, San Diego, California, and the U.S., 1979 - 2005

Annual Rates ........................................................................................................................................32
  Figure 4.2: Annual Suicide Rates by Gender, Age 65 Years and Older
  Table 4.1: Annual Suicide Number and Rate, Age 65 Years and Older

Race/Ethnicity........................................................................................................................................33
  Figure 4.3: Suicide Rates by Race/Ethnicity, Age 65 Years and Older
  Table 4.2: Suicides by Race/Ethnicity and Gender, Age 65 Years and Older

Marital Status........................................................................................................................................34
  Figure 4.4: Suicide Rates by Marital Status, Age 65 Years and Older
  Table 4.3: Suicides by Marital Status and Gender, Age 65 Years and Older

Suicide Methods..................................................................................................................................35
  Figure 4.5: Suicide Methods, Age 65 Years and Older

Month....................................................................................................................................................36
  Figure 4.6: Suicides by Month, Age 65 Years and Older

Toxicology by Gender ........................................................................................................................37
  Table 4.4: Toxicology Results by Gender, Age 65 Years and Older, 2000 - 2007
  Figure 4.7: Toxicology Results for Alcohol and Drugs of Abuse by Gender, Age 65 Years and Older

Toxicology by Suicide Method.............................................................................................................38
  Table 4.5: Toxicology Results by Suicide Method, Age 65 Years and Older, 2000 - 2007

Geographic Distribution.......................................................................................................................39
  Figure 4.8: Suicide Rate, San Diego County by Health Service Region, Age 65+, 1998 – 2007
  Table 4.6: Suicides by San Diego County Health Service Region, Age 65 Years and Older, 1998 – 2007

End Note...............................................................................................................................................40

Suicide Prevention Resources .........................................................................................................41
Suicide now ranks second among causes of non-natural death in San Diego County, only slightly behind motor vehicle crashes, and followed by drug overdoses and falls. From 1998 through 2007, suicide took the lives of 3,248 San Diegans, claiming about one person each day and outnumbering homicides (1,236) by 2.6 to 1.

The devastating impact of suicidal behavior, however, reaches far beyond those who actually take their own life. It is believed that for every suicide, there are six "survivors"—persons who suffer lasting emotional trauma when someone close to them dies as a result of suicide. Moreover, for every one completed suicide, there are an estimated 25 attempted suicides overall; among youth, the ratio of completed to attempted suicides may be as high as 1:100 to 1:200.

Alarming numbers like these, evident nationwide, resulted in a call by the U.S. Surgeon General for the nation, states, and communities to apply public health methods to address the suicide problem. Among the goals set forth in the National Strategy for Suicide Prevention, the Surgeon General challenges us to work together to promote awareness that suicide is a major preventable public health problem. This calls for increasing collaboration among public and private entities to use means to raise public awareness of suicide and suicide prevention, including developing public education campaigns and disseminating information through the World Wide Web.

In this report, Suicide in San Diego County: 1998 - 2007, the Community Health Improvement Partners' (CHIP) Suicide Prevention Committee takes an important step toward meeting that goal. This report presents data about suicide in the county overall and among three distinct age groups: adolescents and young adults, working-aged adults, and older adults. The information in this report should prove helpful to those in need of basic information and trends on suicide in San Diego County, including community-based agencies, government agencies, businesses, healthcare, media, and private individuals.

Readers will note that this latest report contains some changes from the committee’s previous report, Suicide in San Diego County: 1995 - 2004. In that report, suicide was found to rank first among causes of non-natural death in San Diego County, exceeding motor vehicle crash deaths. The rank order change of suicide from first place to second place as a cause of death in the latest report is a result of both a 5% increase in motor vehicle deaths and a 2.6% decrease in suicides. While this overall decline is encouraging, 2007 saw the highest suicide rate since 2000. We look forward to more progress as the state, and its many counties, embark on an expansion of mental health programs under Proposition 63 and the implementation of a comprehensive, integrated approach to reducing suicide through the new State Office of Suicide Prevention.

1 American Association of Suicidology. Available at http://www.suicidology.org/displaycommon.cfm?an=6
Accessed 9/24/08

http://www.suicidology.org/associations/1045/files/SuicideInTheUS.pdf Accessed 9/24/08

3 National Strategy for Suicide Prevention: Goals and Objectives for Action. Available at
http://mentalhealth.samhsa.gov/publications/allpubs/SMA01-3517/ Accessed 9/24/08
Section 1: All Ages

Leading Causes of Non-Natural Death

In San Diego County, suicide ranked as the second leading cause of non-natural death for all ages from 1998 – 2007, slightly behind motor vehicle crashes, and followed by drug overdoses and falls.

- Among young people ages 15 to 19, suicide was the third leading cause of non-natural death.
- Among the population ages 20 to 74, suicide was either the first or second leading cause of non-natural death.
- Among older adults ages 75 and up, suicide was the second leading cause of non-natural death.

Table 1.1: Leading Causes of Non-Natural Death by Age Group of Victim, County of San Diego, 1998 - 2007

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Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner database, 1998 - 2007

Note: Cases in which the mechanism of death was unknown are excluded.
Section 1: All Ages

Suicides by Age Group and Year

In San Diego County, there were a total of 36 suicides among children 14 years and under from 1988 through 2007, an average of less than two per year. While each suicide is in itself significant, this relatively small number does not lend itself to reliable annual data that can support statistical conclusions.

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Source: County of San Diego Health and Human Services Agency, Division of Emergency Medical Services, Medical Examiner Database, 1988 – 2007
Note: Total includes those with unknown age and younger than 15 years. Cult-related suicides are excluded.

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</table>

*Rates per 100,000
Source: County of San Diego Health and Human Services Agency, Division of Emergency Medical Services, Medical Examiner Database, 1988 – 2007
Note: Total includes those with unknown age and younger than 15 years. Cult-related suicides are excluded.
Comparison with California and the United States

According to data from the Centers for Disease Control and Prevention (CDC)\(^1\), the age-adjusted suicide rate\(^2\) has been consistently higher in San Diego County than in the state of California or the United States overall (see figure 1.1).

In 2005, the most recent national data available, suicide rates per 100,000 population were as follows:

- United States: 10.9
- California: 9.1
- San Diego County: 10.4

The CDC, in its *Healthy People 2010* report\(^3\), has set a target of 5.0 suicides per 100,000 population. Clearly, our county, our state, and the nation as a whole must gear up to make a significant impact on the suicide problem.

---

1. [www.cdc.gov](http://www.cdc.gov)
2. Age adjustment is performed to compare rates of conditions whose rates vary depending on age for populations with different age distributions. In this case, rates were adjusted to the United States population distribution for the year 2000.
Suicide by Age and Gender

The rate of suicide tells us how many suicides there were in proportion to the total population. In San Diego County from 1998 through 2007, the annual suicide rate averaged 11.1 per 100,000 people. The male suicide rate was more than three times higher than the rate among females, and increased dramatically in older age groups. In contrast to males, who were at greatest risk of committing suicide when they reached the oldest age groups, the female suicide rate was highest in the 45 to 54-year age group.

Table 1.4: Suicides by Age and Gender

<table>
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<th>Age Group</th>
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<th>Female</th>
<th>Total</th>
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<tbody>
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<td>Rate</td>
<td>Number</td>
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<td>15-19</td>
<td>97</td>
<td>8.56</td>
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<td>20-24</td>
<td>199</td>
<td>14.90</td>
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<tr>
<td>25-34</td>
<td>380</td>
<td>15.95</td>
<td>121</td>
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<td>35-44</td>
<td>492</td>
<td>21.36</td>
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<tr>
<td>45-54</td>
<td>474</td>
<td>25.55</td>
<td>205</td>
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<tr>
<td>55-64</td>
<td>290</td>
<td>25.51</td>
<td>102</td>
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<tr>
<td>65-74</td>
<td>190</td>
<td>25.88</td>
<td>53</td>
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<tr>
<td>75-84</td>
<td>223</td>
<td>44.70</td>
<td>53</td>
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<tr>
<td>85+</td>
<td>109</td>
<td>72.83</td>
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<td>Unknown</td>
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<tr>
<td>Total</td>
<td>2469</td>
<td>16.83</td>
<td>779</td>
</tr>
</tbody>
</table>

*Rate per 100,000

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 - 2007

*Annualized rates per 100,000 population

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 – 2007
The suicide rate among Whites was more than two times higher than the rate for the Black population, which had the second highest suicide rate. Both genders were at increased risk in the White population compared with other racial/ethnic groups, and males were substantially more at risk of committing suicide among all groups.

### Table 1.5: Suicides by Race/Ethnicity and Gender

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Male Number</th>
<th>Male Rate¹</th>
<th>Female Number</th>
<th>Female Rate</th>
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<td>2.95</td>
<td>211</td>
<td>5.45</td>
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<td>**</td>
<td>2</td>
<td>**</td>
<td>13</td>
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<tr>
<td>Total</td>
<td>2469</td>
<td>16.83</td>
<td>779</td>
<td>5.35</td>
<td>3248</td>
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</table>

¹Rate per 100,000

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 – 2007
Suicide Methods
Firearms are still the leading method of completed suicide, accounting for 41% of suicides overall and nearly half of suicides committed by males. Females more often used drugs or poisons to commit suicide (42%).

Figure 1.4: Suicide Methods

Source: County of San Diego Health and Human Services Agency, Division of Emergency Medical Services, Medical Examiner's Database, 1998 - 2007
Section 1: All Ages

The trend of suicide methods over the last 20 years shows a dramatic decline of 27% in suicides committed using firearms during this time period. Over the same period of time, suicides by hanging/asphyxia have increased by 66% and the number of suicides from OD/poisoning nearly doubled.

Figure 1.5: Suicide Methods by Year, 1988 - 2007

Source: County of San Diego Health and Human Services Agency, Division of Emergency Medical Services, Medical Examiner’s Database, 1988 - 2007

Table 1.6: Suicide Methods by Year, 1988 - 2007

<table>
<thead>
<tr>
<th></th>
<th>Firearms</th>
<th>OD/Poisoning</th>
<th>Hang/Asphyxia</th>
<th>Jump/Other</th>
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<td>Percent</td>
<td>Number</td>
<td>Percent</td>
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<td>42</td>
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<td>3050</td>
<td>45.62%</td>
<td>1252</td>
<td>18.73%</td>
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</table>

Source: County of San Diego Health and Human Services Agency, Division of Emergency Medical Services, Medical Examiner’s Database, 1988 - 2007
Suicide is commonly thought to vary depending on the time of the year, but the data from San Diego County does not reflect a strong seasonal pattern. Figure 1.6 shows the average number of suicides per day in San Diego County for each month from 1998 through 2007.

**Table 1.7: Suicides by Month and Gender**

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<td>Feb</td>
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</tr>
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<td>Mar</td>
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<tr>
<td>Apr</td>
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<tr>
<td>May</td>
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<td>65</td>
</tr>
<tr>
<td>Total</td>
<td>2469</td>
<td>0.68</td>
<td>779</td>
</tr>
</tbody>
</table>

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 - 2007
Murder-Suicide

Murder-Suicides, in which a person takes somebody else's life before ending their own, made up only 1.6% of all suicides over the past 20 years, but are especially traumatic to the community. In San Diego County from 1988 through 2007, there were 107 incidents of murder-suicide with 125 homicide victims. The demographics of this phenomenon differ from other suicides in that about 90% of the perpetrators are male and 93% of the suicides were carried out using firearms. The majority of homicide victims were significant others, with relationship issues such as recent or impending breakups leading up to the event.

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1988 – 2007
Section 1: All Ages

Toxicology by Gender

The Medical Examiner’s Office performed toxicology analyses for drugs of abuse on about 90% of suicides from 2000 through 2007. Cannabinoids, which include marijuana, and benzodiazepines, a commonly abused class of tranquilizer, were added to the drugs of abuse panel in 2004. Of those tested, 30.2% tested positive for alcohol with 20.3% returning blood alcohol levels of 0.08% or higher. Women who died from suicide were much more likely than men to test positive for opiates and benzodiazepines, while men were more likely to test positive for cannabinoids. Antidepressants, for which more selective testing is performed, were also more likely to appear in women (61.5% of women vs. 33.8% of men tested).

Table 1.8: Toxicology Results by Gender, All Ages, 2000 - 2007

<table>
<thead>
<tr>
<th>Substance</th>
<th>Male Tested</th>
<th>Male Positive</th>
<th>Male %</th>
<th>Female Tested</th>
<th>Female Positive</th>
<th>Female %</th>
<th>Total Tested</th>
<th>Total Positive</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol &gt;=0.08%¹</td>
<td>1836</td>
<td>1707</td>
<td>92.1%</td>
<td>373</td>
<td>361</td>
<td>91.7%</td>
<td>2413</td>
<td>2078</td>
<td>92.0%</td>
</tr>
<tr>
<td>Alcohol &lt;0.08%¹</td>
<td>1836</td>
<td>1447</td>
<td>92.1%</td>
<td>194</td>
<td>166</td>
<td>10.6%</td>
<td>2413</td>
<td>2013</td>
<td>92.0%</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>1746</td>
<td>1478</td>
<td>87.6%</td>
<td>150</td>
<td>113</td>
<td>8.6%</td>
<td>2305</td>
<td>1951</td>
<td>87.9%</td>
</tr>
<tr>
<td>Opiates</td>
<td>1747</td>
<td>1623</td>
<td>87.7%</td>
<td>216</td>
<td>188</td>
<td>12.4%</td>
<td>2312</td>
<td>2100</td>
<td>88.2%</td>
</tr>
<tr>
<td>Cocaine metabolites</td>
<td>1748</td>
<td>622</td>
<td>87.7%</td>
<td>56</td>
<td>50</td>
<td>3.2%</td>
<td>2310</td>
<td>2262</td>
<td>88.1%</td>
</tr>
<tr>
<td>Cannabinoids²</td>
<td>884</td>
<td>801</td>
<td>89.7%</td>
<td>95</td>
<td>91</td>
<td>10.7%</td>
<td>1175</td>
<td>1066</td>
<td>90.5%</td>
</tr>
<tr>
<td>Benzodiazepines²</td>
<td>884</td>
<td>828</td>
<td>89.7%</td>
<td>149</td>
<td>138</td>
<td>16.9%</td>
<td>1175</td>
<td>1063</td>
<td>90.5%</td>
</tr>
<tr>
<td>Antidepressant³</td>
<td>725</td>
<td>383</td>
<td>36.4%</td>
<td>245</td>
<td>214</td>
<td>33.8%</td>
<td>1052</td>
<td>968</td>
<td>40.1%</td>
</tr>
</tbody>
</table>

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 2000 – 2007

¹ In some cases, some or all of the alcohol detected could be a result of decomposition rather than exogenous use of alcohol

² Results for cannabinoids and benzodiazepines are from 2004 – 2007

³ In suicides by traumatic or asphyxial methods, testing for antidepressants is unlikely to be performed unless the decedent is known or thought to have been prescribed antidepressant medications

The following graphs show the percentage of suicide victims who tested positive for alcohol and/or common drugs of abuse from 2004 through 2007. 56.4% of men and 67.5% of women tested positive for at least one of these substances. The actual number with positive toxicologies for any substance may be considerably higher, since this does not include many prescription and over the counter drugs that are not part of the routine toxicology screen.

Figure 1.8: Toxicology Results for Alcohol and Drugs of Abuse by Gender, All Ages, 2004 - 2007

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 2004 – 2007

Note: “Drugs of Abuse” includes methamphetamine, opiates, cocaine, cannabinoids, and benzodiazepines.

This graph does not include antidepressants
### Toxicology by Suicide Method

Individuals who died from OD/Poisoning suicides were much more likely than others to test positive for opiates, benzodiazepines, and antidepressants. Methamphetamine was highest in suicides from hanging or asphyxia, and those who died from jumping were the most likely to test positive for cannabinoids.

#### Table 1.9: Toxicology Results by Suicide Method, All Ages, 2000 - 2007

<table>
<thead>
<tr>
<th>Suicide Method</th>
<th>Substance</th>
<th>Tested Positive</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>OD/Poison</td>
<td>Alcohol &gt;=0.08%</td>
<td>497</td>
<td>92.2%</td>
<td>92</td>
<td>18.5%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>497</td>
<td>92.2%</td>
<td>52</td>
<td>10.5%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>499</td>
<td>92.6%</td>
<td>42</td>
<td>8.4%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>504</td>
<td>93.5%</td>
<td>189</td>
<td>37.5%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>502</td>
<td>93.1%</td>
<td>25</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids²</td>
<td>261</td>
<td>96.7%</td>
<td>16</td>
<td>6.1%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines²</td>
<td>261</td>
<td>96.7%</td>
<td>108</td>
<td>41.4%</td>
</tr>
<tr>
<td></td>
<td>antidepressant³</td>
<td>363</td>
<td>67.3%</td>
<td>264</td>
<td>72.7%</td>
</tr>
<tr>
<td>Hang/Asphyxia</td>
<td>Alcohol &gt;=0.08%</td>
<td>515</td>
<td>90.7%</td>
<td>112</td>
<td>21.7%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>515</td>
<td>90.7%</td>
<td>58</td>
<td>11.3%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>500</td>
<td>88.0%</td>
<td>73</td>
<td>14.6%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>499</td>
<td>87.9%</td>
<td>35</td>
<td>7.0%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>500</td>
<td>88.0%</td>
<td>20</td>
<td>4.0%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids²</td>
<td>268</td>
<td>88.2%</td>
<td>33</td>
<td>12.3%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines²</td>
<td>268</td>
<td>88.2%</td>
<td>38</td>
<td>14.2%</td>
</tr>
<tr>
<td></td>
<td>antidepressant³</td>
<td>208</td>
<td>36.6%</td>
<td>57</td>
<td>27.4%</td>
</tr>
<tr>
<td>Firearm</td>
<td>Alcohol &gt;=0.08%</td>
<td>985</td>
<td>92.5%</td>
<td>220</td>
<td>22.3%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>985</td>
<td>92.5%</td>
<td>87</td>
<td>8.8%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>899</td>
<td>84.4%</td>
<td>49</td>
<td>5.5%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>901</td>
<td>84.6%</td>
<td>94</td>
<td>10.4%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>900</td>
<td>84.5%</td>
<td>23</td>
<td>2.6%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids²</td>
<td>432</td>
<td>87.3%</td>
<td>42</td>
<td>9.7%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines²</td>
<td>432</td>
<td>87.3%</td>
<td>58</td>
<td>13.4%</td>
</tr>
<tr>
<td></td>
<td>antidepressant³</td>
<td>291</td>
<td>27.3%</td>
<td>65</td>
<td>22.3%</td>
</tr>
<tr>
<td>Jump</td>
<td>Alcohol &gt;=0.08%</td>
<td>163</td>
<td>91.1%</td>
<td>17</td>
<td>10.4%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>163</td>
<td>91.1%</td>
<td>13</td>
<td>8.0%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>160</td>
<td>89.4%</td>
<td>11</td>
<td>6.9%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>161</td>
<td>89.9%</td>
<td>9</td>
<td>5.6%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>161</td>
<td>89.9%</td>
<td>6</td>
<td>3.7%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids²</td>
<td>83</td>
<td>93.3%</td>
<td>11</td>
<td>13.3%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines²</td>
<td>83</td>
<td>93.3%</td>
<td>13</td>
<td>15.7%</td>
</tr>
<tr>
<td></td>
<td>antidepressant³</td>
<td>74</td>
<td>41.3%</td>
<td>23</td>
<td>31.1%</td>
</tr>
<tr>
<td>Other</td>
<td>Alcohol &gt;=0.08%</td>
<td>253</td>
<td>93.4%</td>
<td>49</td>
<td>19.4%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>253</td>
<td>93.4%</td>
<td>28</td>
<td>11.1%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>247</td>
<td>91.1%</td>
<td>16</td>
<td>6.5%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>247</td>
<td>91.1%</td>
<td>23</td>
<td>9.3%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>247</td>
<td>91.1%</td>
<td>6</td>
<td>2.4%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids²</td>
<td>131</td>
<td>92.9%</td>
<td>8</td>
<td>6.1%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines²</td>
<td>131</td>
<td>92.9%</td>
<td>20</td>
<td>15.3%</td>
</tr>
<tr>
<td></td>
<td>antidepressant³</td>
<td>116</td>
<td>42.8%</td>
<td>37</td>
<td>31.9%</td>
</tr>
</tbody>
</table>

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 2000 – 2007

1 In some cases, some or all of the alcohol detected could be a result of decomposition rather than exogenous use of alcohol
2 Results for cannabinoids and benzodiazepines are from 2004 – 2007
3 In suicides by traumatic or asphyxial methods, testing for antidepressants is unlikely to be performed unless the decedent is known or thought to have been prescribed antidepressant medications
Geographic Distribution

The suicide rate was highest in the Central and East regions of the county, and lowest in the South region.

### Table 1.10: Suicides by San Diego County Health Service Region 1998 - 2007

<table>
<thead>
<tr>
<th>Health Service Region</th>
<th>Number</th>
<th>Rate†</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Coastal</td>
<td>438</td>
<td>9.00</td>
</tr>
<tr>
<td>North Central</td>
<td>622</td>
<td>10.93</td>
</tr>
<tr>
<td>Central</td>
<td>584</td>
<td>12.11</td>
</tr>
<tr>
<td>South</td>
<td>328</td>
<td>7.76</td>
</tr>
<tr>
<td>East</td>
<td>562</td>
<td>12.48</td>
</tr>
<tr>
<td>North Inland</td>
<td>461</td>
<td>9.02</td>
</tr>
<tr>
<td>Unknown</td>
<td>253</td>
<td>--</td>
</tr>
<tr>
<td>Total</td>
<td>3248</td>
<td>11.11</td>
</tr>
</tbody>
</table>

†Rate per 100,000

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 - 2007
Comparison with California and the United States

Suicide rates in teens and young adults over the past two decades have seen an overall decline, but remain at levels that are unfortunately too high.

![Figure 2.1: Suicide Rates: Age 15-24 Years, San Diego, California, and the U.S. 1979 - 2005](image)

Source: CDC Wonder Compressed Mortality Database, 1979 - 2005
Section 2: Adolescents and Young Adults

Youth Risk Behavior Survey

Examining data on suicide attempts may lead to important information on reducing the rate of suicide, particularly among youth. The Youth Risk Behavior Survey (YRBS), conducted by the Centers for Disease Control and Prevention (CDC), measures behaviors that put teens at risk, including suicide attempts. San Diego City Schools participate in this voluntary survey, which is given every two years to students in grades 9-12.

In the spring 2007 YRBS, 7.7% of students surveyed from San Diego City Schools reported attempting suicide at least once during the previous 12 months. This has ranged from 6.3% in the 1991 survey to a high of 10.9% according to the 2003 survey. Girls consistently reported having attempted suicide more often than boys, with a positive response rate as high as 14.5% in the 2001 survey. Nationally, 6.9% of all students surveyed in 2007 reported a suicide attempt during the previous 12 months.

Source: 2007 Youth Risk Behavior Survey Results, San Diego High School Survey Summary
Accessed online at http://www.cdc.gov/HealthyYouth/yrbs/index.htm (last accessed: 6/18/08)
Section 2: Adolescents and Young Adults

Annual Rates

The annual suicide rate among young people in San Diego County averaged 7.9 per 100,000 from 1998 through 2007. The overall trend has been downward, dropping 20% compared to the average annual rate during the previous 10-year period of 1988 through 1997 (9.9 per 100,000).

Table 2.1: Annual Suicide Number and Rate, Age 15 – 24 Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Rate</td>
<td>Number</td>
</tr>
<tr>
<td>1998</td>
<td>33</td>
<td>13.9</td>
<td>8</td>
</tr>
<tr>
<td>1999</td>
<td>22</td>
<td>9.2</td>
<td>2</td>
</tr>
<tr>
<td>2000</td>
<td>36</td>
<td>15.4</td>
<td>5</td>
</tr>
<tr>
<td>2001</td>
<td>25</td>
<td>10.5</td>
<td>7</td>
</tr>
<tr>
<td>2002</td>
<td>26</td>
<td>10.5</td>
<td>8</td>
</tr>
<tr>
<td>2003</td>
<td>33</td>
<td>13.0</td>
<td>6</td>
</tr>
<tr>
<td>2004</td>
<td>26</td>
<td>10.3</td>
<td>8</td>
</tr>
<tr>
<td>2005</td>
<td>23</td>
<td>9.0</td>
<td>4</td>
</tr>
<tr>
<td>2006</td>
<td>42</td>
<td>16.3</td>
<td>5</td>
</tr>
<tr>
<td>2007</td>
<td>30</td>
<td>11.8</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>296</td>
<td>12.0</td>
<td>59</td>
</tr>
</tbody>
</table>

1Rate per 100,000

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 – 2007

*Rates not calculated for fewer than five incidents
Section 2: Adolescents and Young Adults

Race/Ethnicity

Unlike all ages combined, in which the suicide rate among Whites was more than double that of any other ethnic group, suicide rates in the 15 to 24-year age range were much more even across race/ethnic groups. Suicide among San Diego County’s young people is highest among White and Black males, followed by Asian/Other males and Hispanic males.

Table 2.2: Suicides by Race/Ethnicity and Gender, Age 15-24 Years

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Rate†</td>
<td>Number</td>
</tr>
<tr>
<td>White</td>
<td>190</td>
<td>17.0</td>
<td>38</td>
</tr>
<tr>
<td>Black</td>
<td>24</td>
<td>14.5</td>
<td>4</td>
</tr>
<tr>
<td>Hispanic</td>
<td>54</td>
<td>6.3</td>
<td>10</td>
</tr>
<tr>
<td>Asian/Other</td>
<td>28</td>
<td>8.4</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>296</td>
<td>12.0</td>
<td>59</td>
</tr>
</tbody>
</table>

†Rate per 100,000

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 – 2007
*Rates not calculated for fewer than five incidents.
Suicide Methods

Firearms were the leading method of completed suicide among young people, accounting for 41% of suicides by males and 29% by females. Suicide methods were much more evenly distributed between the sexes in this age group than in older ages, where females overall were more likely to use drugs/poisons and males were more likely to use firearms.

Figure 2.5: Suicide Methods, Age 15 - 24 Years

Source: County of San Diego Health and Human Services Agency, Division of Emergency Medical Services, Medical Examiner’s Database, 1998 - 2007
Section 2: Adolescents and Young Adults

Month

The highest number of suicides among individuals aged 15 to 24 years occurred during the month of March, and the lowest number was in July.

Figure 2.6: Suicides by Month, Age 15 - 24 Years

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 - 2007
Section 2: Adolescents and Young Adults

Toxicology by Gender

The Medical Examiner’s Office performed toxicology analyses for drugs of abuse on nearly 90% of suicides from 2000 through 2007. Cannabinoids, which include marijuana, and benzodiazepines, a commonly abused class of tranquilizer, were added to the drugs of abuse panel in 2004. Of 15 to 24 year old suicide victims who were tested, 25.5% tested positive for alcohol with 16.5% returning blood alcohol levels of 0.08% or higher. Women who died from suicide were much more likely than men to test positive for cocaine, opiates and benzodiazepines, while men were more likely to test positive for cannabinoids. Antidepressants, for which more selective testing is performed, were also more likely to appear in women (42.1% of women vs. 13.1% of men tested).

Table 2.3: Toxicology Results by Gender, Age 15 – 24 Years, 2000 - 2007

<table>
<thead>
<tr>
<th>Substance</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tested</td>
<td>Positive</td>
<td>Tested</td>
</tr>
<tr>
<td>Alcohol &gt;=0.08%¹</td>
<td>210</td>
<td>87.1%</td>
<td>35</td>
</tr>
<tr>
<td>Alcohol &lt;0.08%¹</td>
<td>210</td>
<td>87.1%</td>
<td>19</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>212</td>
<td>88.0%</td>
<td>21</td>
</tr>
<tr>
<td>Opiates</td>
<td>212</td>
<td>88.0%</td>
<td>7</td>
</tr>
<tr>
<td>Cocaine metabolites</td>
<td>212</td>
<td>88.0%</td>
<td>7</td>
</tr>
<tr>
<td>Cannabinoids²</td>
<td>109</td>
<td>90.1%</td>
<td>26</td>
</tr>
<tr>
<td>Benzodiazepines²</td>
<td>109</td>
<td>90.1%</td>
<td>4</td>
</tr>
<tr>
<td>Antidepressant³</td>
<td>84</td>
<td>34.9%</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 2000 – 2007

1 In some cases, some or all of the alcohol detected could be a result of decomposition rather than exogenous use of alcohol
2 Results for cannabinoids and benzodiazepines are from 2004 – 2007
3 In suicides by traumatic or asphyxial methods, testing for antidepressants is unlikely to be performed unless the decedent is known or thought to have been prescribed antidepressant medications

Positive toxicology results for alcohol and/or drugs of abuse were found in 53.7% of male and 57.1% of female suicide victims age 15 to 24. The actual number with positive toxicologies for any substance may be considerably higher, since this does not include many prescription and over the counter drugs that are not part of the routine toxicology screen.

Figure 2.7: Toxicology Results for Alcohol and Drugs of Abuse by Gender, Age 15 – 24 Years, 2004 - 2007

Toxicology Results: Males, Age 15-24

- Alcohol only: 16.7%
- Alcohol + Drugs: 8.3%
- Drugs only: 28.7%
- Negative: 46.3%

N=108

Toxicology Results: Females, Age 15-24

- Alcohol only: 19.0%
- Alcohol + Drugs: 14.3%
- Drugs only: 23.8%
- Negative: 42.9%

N=21

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 2004 – 2007

Note: "Drugs of Abuse" includes methamphetamine, opiates, cocaine, cannabinoids, and benzodiazepines.

This graph does not include antidepressants
## Toxicology by Suicide Method

Individuals who died from OD/Poisoning suicides were much more likely than others to test positive for opiates, benzodiazepines, and antidepressants. Methamphetamine was highest in suicides from hanging or asphyxia, and cannabinoids were highest in suicides from jumping (30.8% positive) and firearms (28.6% positive).

### Table 2.4: Toxicology Results by Suicide Method, Age 15 – 24 Years, 2000 – 2007

<table>
<thead>
<tr>
<th>Suicide Method</th>
<th>Substance</th>
<th>Tested</th>
<th>Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>OD/Poison</td>
<td>Alcohol &gt;=0.08%</td>
<td>22</td>
<td>73.3%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>22</td>
<td>73.3%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>23</td>
<td>76.7%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>23</td>
<td>76.7%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>23</td>
<td>76.7%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids</td>
<td>11</td>
<td>84.6%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines</td>
<td>11</td>
<td>84.6%</td>
</tr>
<tr>
<td></td>
<td>Antidepressants</td>
<td>12</td>
<td>40.0%</td>
</tr>
<tr>
<td>Hang/Asphyxia</td>
<td>Alcohol &gt;=0.08%</td>
<td>80</td>
<td>89.9%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>80</td>
<td>89.9%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>79</td>
<td>88.8%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>79</td>
<td>88.8%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>79</td>
<td>88.8%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids</td>
<td>46</td>
<td>93.9%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines</td>
<td>46</td>
<td>93.9%</td>
</tr>
<tr>
<td></td>
<td>Antidepressants</td>
<td>36</td>
<td>40.4%</td>
</tr>
<tr>
<td>Firearm</td>
<td>Alcohol &gt;=0.08%</td>
<td>95</td>
<td>89.6%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>95</td>
<td>89.6%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>96</td>
<td>90.6%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>96</td>
<td>90.6%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>96</td>
<td>90.6%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids</td>
<td>42</td>
<td>89.4%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines</td>
<td>42</td>
<td>89.4%</td>
</tr>
<tr>
<td></td>
<td>Antidepressants</td>
<td>31</td>
<td>29.2%</td>
</tr>
<tr>
<td>Jump</td>
<td>Alcohol &gt;=0.08%</td>
<td>32</td>
<td>86.5%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>32</td>
<td>86.5%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>32</td>
<td>86.5%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>32</td>
<td>86.5%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>32</td>
<td>86.5%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids</td>
<td>13</td>
<td>86.7%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines</td>
<td>13</td>
<td>86.7%</td>
</tr>
<tr>
<td></td>
<td>Antidepressants</td>
<td>14</td>
<td>37.8%</td>
</tr>
<tr>
<td>Other</td>
<td>Alcohol &gt;=0.08%</td>
<td>26</td>
<td>92.9%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>26</td>
<td>92.9%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>26</td>
<td>92.9%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>26</td>
<td>92.9%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>26</td>
<td>92.9%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids</td>
<td>18</td>
<td>90.0%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines</td>
<td>18</td>
<td>90.0%</td>
</tr>
<tr>
<td></td>
<td>Antidepressants</td>
<td>10</td>
<td>35.7%</td>
</tr>
</tbody>
</table>

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 2000 – 2007

1 In some cases, some or all of the alcohol detected could be a result of decomposition rather than exogenous use of alcohol

2 Results for cannabinoids and benzodiazepines are from 2004 – 2007

3 In suicides by traumatic or asphyxial methods, testing for antidepressants is unlikely to be performed unless the decedent is known or thought to have been prescribed antidepressant medications
Table 2.5: Suicides by San Diego County Health Service Region, Age 15 – 24, 1998 - 2007

<table>
<thead>
<tr>
<th>Health Service Region</th>
<th>Number</th>
<th>Rate†</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Coastal</td>
<td>48</td>
<td>6.05</td>
</tr>
<tr>
<td>North Central</td>
<td>62</td>
<td>7.58</td>
</tr>
<tr>
<td>Central</td>
<td>60</td>
<td>7.30</td>
</tr>
<tr>
<td>South</td>
<td>34</td>
<td>4.69</td>
</tr>
<tr>
<td>East</td>
<td>62</td>
<td>9.65</td>
</tr>
<tr>
<td>North Inland</td>
<td>48</td>
<td>6.62</td>
</tr>
<tr>
<td>Unknown</td>
<td>41</td>
<td>--</td>
</tr>
<tr>
<td>Total</td>
<td>355</td>
<td>7.84</td>
</tr>
</tbody>
</table>

†Rate per 100,000

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 - 2007

The suicide rate was highest in the East Health Service Region (HSR). The lowest rate was observed in the South HSR, which covers the communities of Chula Vista, Sweetwater, and South Bay.
Comparison with California and the United States

Suicide rates in working aged adults (25-64 years) over the past two decades have seen an overall decline, but remain at levels that are unfortunately too high. In contrast with the 15 to 24 year age group, in which San Diego has lower rates than California and the United States, the rates are generally higher in San Diego for this age group.

Figure 3.1: Suicide Rates: Age 25-64 Years, San Diego, California, and the U.S. 1979 - 2005

Source: CDC Wonder Compressed Mortality Database, 1979 - 2005
The suicide rate among working aged adults in San Diego County averaged 14.5 per 100,000 during the 10-year period from 1998 through 2007, and declined consistently from a high of 17.4 per 100,000 in 1999 to 13.6 per 100,000 in 2007. During this decade, men in this age group had an average annual rate of 21.3 per 100,000, and the rate for women was 7.6 per 100,000.

Table 3.1: Annual Suicide Number and Rate, Age 25 – 64 Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Rate†</th>
<th>Female</th>
<th>Rate</th>
<th>Total</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Rate</td>
<td>Number</td>
<td>Rate</td>
<td>Number</td>
<td>Rate</td>
</tr>
<tr>
<td>1998</td>
<td>160</td>
<td>22.7</td>
<td>57</td>
<td>8.3</td>
<td>217</td>
<td>15.6</td>
</tr>
<tr>
<td>1999</td>
<td>147</td>
<td>20.5</td>
<td>52</td>
<td>7.4</td>
<td>199</td>
<td>14.0</td>
</tr>
<tr>
<td>2000</td>
<td>176</td>
<td>23.9</td>
<td>64</td>
<td>8.9</td>
<td>240</td>
<td>16.5</td>
</tr>
<tr>
<td>2001</td>
<td>160</td>
<td>21.4</td>
<td>64</td>
<td>8.7</td>
<td>224</td>
<td>15.1</td>
</tr>
<tr>
<td>2002</td>
<td>173</td>
<td>22.6</td>
<td>65</td>
<td>8.6</td>
<td>238</td>
<td>15.7</td>
</tr>
<tr>
<td>2003</td>
<td>182</td>
<td>23.2</td>
<td>40</td>
<td>5.2</td>
<td>222</td>
<td>14.3</td>
</tr>
<tr>
<td>2004</td>
<td>148</td>
<td>18.6</td>
<td>68</td>
<td>8.5</td>
<td>216</td>
<td>13.6</td>
</tr>
<tr>
<td>2005</td>
<td>156</td>
<td>19.4</td>
<td>63</td>
<td>7.8</td>
<td>219</td>
<td>13.6</td>
</tr>
<tr>
<td>2006</td>
<td>143</td>
<td>17.7</td>
<td>47</td>
<td>5.8</td>
<td>190</td>
<td>11.8</td>
</tr>
<tr>
<td>2007</td>
<td>191</td>
<td>23.3</td>
<td>60</td>
<td>7.4</td>
<td>251</td>
<td>15.4</td>
</tr>
<tr>
<td>Total</td>
<td>1636</td>
<td>21.3</td>
<td>580</td>
<td>7.6</td>
<td>2216</td>
<td>14.5</td>
</tr>
</tbody>
</table>

†Rate per 100,000
Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 – 2007
Section 3: Working-Aged Adults

Race/Ethnicity

The suicide rate among working aged adults was highest in Whites, with White males having the highest risk of any race/gender combination. Males were substantially more at risk of committing suicide among all racial/ethnic groups.

![Figure 3.3: Suicide Rates by Race/Ethnicity: Age 25-64 Years](image)

Source: County of San Diego Health and Human Services Agency, Division of Emergency Medical Services, Medical Examiner Database, 1998 - 2007

Note: Race/ethnicity unknown for 9 cases.

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Male Number</th>
<th>Female Number</th>
<th>Total Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>1274</td>
<td>479</td>
<td>1753</td>
</tr>
<tr>
<td>Black</td>
<td>69</td>
<td>15</td>
<td>84</td>
</tr>
<tr>
<td>Hispanic</td>
<td>171</td>
<td>41</td>
<td>212</td>
</tr>
<tr>
<td>Asian/Other</td>
<td>115</td>
<td>43</td>
<td>158</td>
</tr>
<tr>
<td>Unknown</td>
<td>7</td>
<td>--</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1636</strong></td>
<td><strong>580</strong></td>
<td><strong>2216</strong></td>
</tr>
</tbody>
</table>

Rate per 100,000

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 - 2007
Among working aged adults (25-64), it appears that marital status has a strong association with suicide risk. Those who were divorced, widowed, or single had a higher risk of suicide than those who were married. For example, a divorced male in this age group was more than four times more likely to commit suicide than a married male.
Section 3: Working-Aged Adults

Suicide Methods

Firearms were by far the leading method of suicide among working aged males, accounting for 40%. Among working aged females, 20% of suicides were attributed to firearms, with 44% dying from overdoses of drugs or poisons.

Figure 3.5: Suicide Methods, Age 25-64 Years

Source: County of San Diego Health and Human Services Agency, Division of Emergency Medical Services, Medical Examiner’s Database, 1998 - 2007
For the working-aged population, San Diego County does not show a strong seasonal trend in suicides, although the average number per day appears to increase in the springtime and reaches its maximum point in August. February and September had the fewest suicides overall.

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 - 2007
Section 3: Working-Aged Adults

Toxicology by Gender

The Medical Examiner’s Office performed toxicology analyses for drugs of abuse on over 90% of suicides between 25 and 64 years of age from 2000 through 2007. Cannabinoids, which include marijuana, and benzodiazepines, a commonly abused class of tranquilizer, were added to the drugs of abuse panel in 2004. Of those tested, 36.0% tested positive for alcohol with 24.4% returning blood alcohol levels of 0.08% or higher. Women who died from suicide were much more likely than men to test positive for opiates and benzodiazepines, while men were more likely to test positive for cannabinoids. Antidepressants, for which more selective testing is performed, were also more likely to appear in women (65.8% of women vs. 38.0% of men tested).

Table 3.4: Toxicology Results by Gender, Age 25 – 64 Years, 2000 - 2007

<table>
<thead>
<tr>
<th>Substance</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tested No.</td>
<td>Tested %</td>
<td>Tested No.</td>
</tr>
<tr>
<td>Alcohol &gt;=0.08%</td>
<td>1250</td>
<td>94.1%</td>
<td>312</td>
</tr>
<tr>
<td>Alcohol &lt;0.08%</td>
<td>1250</td>
<td>94.1%</td>
<td>157</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>1229</td>
<td>92.5%</td>
<td>129</td>
</tr>
<tr>
<td>Opiates</td>
<td>1228</td>
<td>92.4%</td>
<td>153</td>
</tr>
<tr>
<td>Cocaine metabolites</td>
<td>1231</td>
<td>92.6%</td>
<td>47</td>
</tr>
<tr>
<td>Cannabinoids²</td>
<td>602</td>
<td>94.4%</td>
<td>69</td>
</tr>
<tr>
<td>Benzodiazepines²</td>
<td>602</td>
<td>94.4%</td>
<td>109</td>
</tr>
<tr>
<td>Antidepressant³</td>
<td>523</td>
<td>39.4%</td>
<td>199</td>
</tr>
</tbody>
</table>

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 2000 – 2007

1 In some cases, some or all of the alcohol detected could be a result of decomposition rather than exogenous use of alcohol
2 Results for cannabinoids and benzodiazepines are from 2004 – 2007
3 In suicides by traumatic or asphyxial methods, testing for antidepressants is unlikely to be performed unless the decedent is known or thought to have been prescribed antidepressant medications

Positive toxicology results for alcohol and/or drugs of abuse were found in 62.9% of male and 71.0% of female suicide victims age 25 to 64. The actual number with positive toxicologies for any substance may be considerably higher, since this does not include many prescription and over the counter drugs that are not part of the routine toxicology screen.

Figure 3.7: Toxicology Results for Alcohol and Drugs of Abuse by Gender, Age 25 – 64 Years, 2004 - 2007

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 2004 – 2007

Note: “Drugs of Abuse” includes methamphetamine, opiates, cocaine, cannabinoids, and benzodiazepines.
This graph does not include antidepressants

## Toxicology by Suicide Method

Individuals who died from OD/Poisoning suicides were much more likely than others to test positive for opiates, benzodiazepines, and antidepressants. Methamphetamine was highest in suicides from hanging or asphyxia (16.5% positive).

### Table 3.5: Toxicology Results by Suicide Method, Age 25 – 64 Years, 2000 – 2007

<table>
<thead>
<tr>
<th>Suicide Method</th>
<th>Substance</th>
<th>Tested</th>
<th>Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Substance</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>OD/ Poison</td>
<td>Alcohol &gt;=0.08%¹</td>
<td>405</td>
<td>94.8%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%¹</td>
<td>405</td>
<td>94.8%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>403</td>
<td>94.4%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>406</td>
<td>95.1%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>406</td>
<td>95.1%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids²</td>
<td>214</td>
<td>98.2%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines²</td>
<td>214</td>
<td>98.2%</td>
</tr>
<tr>
<td></td>
<td>Antidepressant³</td>
<td>304</td>
<td>71.2%</td>
</tr>
<tr>
<td>Hang/Asphyxia</td>
<td>Alcohol &gt;=0.08%¹</td>
<td>376</td>
<td>90.8%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%¹</td>
<td>376</td>
<td>90.8%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>370</td>
<td>89.4%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>368</td>
<td>88.9%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>370</td>
<td>89.4%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids²</td>
<td>194</td>
<td>87.4%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines²</td>
<td>194</td>
<td>87.4%</td>
</tr>
<tr>
<td></td>
<td>Antidepressant³</td>
<td>145</td>
<td>35.0%</td>
</tr>
<tr>
<td>Firearm</td>
<td>Alcohol &gt;=0.08%¹</td>
<td>590</td>
<td>94.6%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%¹</td>
<td>590</td>
<td>94.6%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>575</td>
<td>92.1%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>575</td>
<td>92.1%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>576</td>
<td>92.3%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids²</td>
<td>263</td>
<td>95.6%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines²</td>
<td>263</td>
<td>95.6%</td>
</tr>
<tr>
<td></td>
<td>Antidepressant³</td>
<td>192</td>
<td>30.8%</td>
</tr>
<tr>
<td>Jump</td>
<td>Alcohol &gt;=0.08%¹</td>
<td>117</td>
<td>92.9%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%¹</td>
<td>117</td>
<td>92.9%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>116</td>
<td>92.1%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>117</td>
<td>92.9%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>117</td>
<td>92.9%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids²</td>
<td>61</td>
<td>96.8%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines²</td>
<td>61</td>
<td>96.8%</td>
</tr>
<tr>
<td></td>
<td>Antidepressant³</td>
<td>51</td>
<td>40.5%</td>
</tr>
<tr>
<td>Other</td>
<td>Alcohol &gt;=0.08%¹</td>
<td>195</td>
<td>93.3%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%¹</td>
<td>195</td>
<td>93.3%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>193</td>
<td>92.3%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>193</td>
<td>92.3%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>193</td>
<td>92.3%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids²</td>
<td>95</td>
<td>96.9%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines²</td>
<td>95</td>
<td>96.9%</td>
</tr>
<tr>
<td></td>
<td>Antidepressant³</td>
<td>91</td>
<td>43.5%</td>
</tr>
</tbody>
</table>

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 2000 – 2007

¹ In some cases, some or all of the alcohol detected could be a result of decomposition rather than exogenous use of alcohol
² Results for cannabinoids and benzodiazepines are from 2004 – 2007
³ In suicides by traumatic or asphyxiial methods, testing for antidepressants is unlikely to be performed unless the decedent is known or thought to have been prescribed antidepressant medications
Among working aged adults, the suicide rate was highest in the Central Health Service Region (HSR). The lowest rate was observed in the North Coastal region, which includes Carlsbad, Oceanside, Pendleton, and San Dieguito.

<table>
<thead>
<tr>
<th>Health Service Region</th>
<th>Number</th>
<th>Rate†</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Coastal</td>
<td>255</td>
<td>10.36</td>
</tr>
<tr>
<td>North Central</td>
<td>423</td>
<td>13.13</td>
</tr>
<tr>
<td>Central</td>
<td>449</td>
<td>17.85</td>
</tr>
<tr>
<td>South</td>
<td>216</td>
<td>10.31</td>
</tr>
<tr>
<td>East</td>
<td>383</td>
<td>16.13</td>
</tr>
<tr>
<td>North Inland</td>
<td>296</td>
<td>11.35</td>
</tr>
<tr>
<td>Unknown</td>
<td>194</td>
<td>--</td>
</tr>
<tr>
<td>Total</td>
<td>2216</td>
<td>14.51</td>
</tr>
</tbody>
</table>

†Rate per 100,000
Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1995 - 2004
Comparison with California and the United States

According to data from the Centers for Disease Control and Prevention (CDC)\(^1\), the suicide rate among older adults has been generally higher in San Diego county than in either the state of California or the United States overall since 1979, although the rate for San Diego County, California, and the United States has declined since the late 80's.

Source: CDC Wonder Compressed Mortality Database

\(^1\) [www.cdc.gov](http://www.cdc.gov)
Section 4: Older Adults

Annual Rates

Figure 4.2: Annual Suicide Rates by Gender, Age 65 Years and Older

The suicide rate among older adults averaged 20.3 per 100,000 during the 10-year period from 1998 through 2007. This represented a 32% decline from the previous decade, when the suicide rate for older adults averaged 29.9 per 100,000 per year.

Table 4.1: Annual Suicide Number and Rate, Age 65 Years and Older

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Rate</td>
<td>Number</td>
</tr>
<tr>
<td>1998</td>
<td>55</td>
<td>43.4</td>
<td>15</td>
</tr>
<tr>
<td>1999</td>
<td>56</td>
<td>43.3</td>
<td>14</td>
</tr>
<tr>
<td>2000</td>
<td>52</td>
<td>39.0</td>
<td>13</td>
</tr>
<tr>
<td>2001</td>
<td>52</td>
<td>38.5</td>
<td>12</td>
</tr>
<tr>
<td>2002</td>
<td>39</td>
<td>28.4</td>
<td>12</td>
</tr>
<tr>
<td>2003</td>
<td>48</td>
<td>34.4</td>
<td>18</td>
</tr>
<tr>
<td>2004</td>
<td>51</td>
<td>36.2</td>
<td>11</td>
</tr>
<tr>
<td>2005</td>
<td>50</td>
<td>34.8</td>
<td>16</td>
</tr>
<tr>
<td>2006</td>
<td>64</td>
<td>43.8</td>
<td>10</td>
</tr>
<tr>
<td>2007</td>
<td>55</td>
<td>36.3</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>522</td>
<td>37.8</td>
<td>134</td>
</tr>
</tbody>
</table>

Rate per 100,000

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 – 2007
Section 4: Older Adults

Race/Ethnicity

Suicide among older adults in San Diego County is largely a White male phenomenon. Almost 80% of suicides in this age group were male, and 95% were White.

Figure 4.3: Suicide Rates by Race/Ethnicity, Age 65 Years and Older

![Image of bar chart showing suicide rates by race/ethnicity for older adults.]

Source: County of San Diego Health and Human Services Agency, Division of Emergency Medical Services, Medical Examiner Database, 1998 – 2007

*Rates not calculated for fewer than five incidents

Note: Race/ethnicity unknown for three cases.

Table 4.2: Suicides by Race/Ethnicity and Gender, Age 65 Years and Older

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Rate</td>
<td>Number</td>
</tr>
<tr>
<td>White</td>
<td>497</td>
<td>47.2</td>
<td>123</td>
</tr>
<tr>
<td>Black</td>
<td>2</td>
<td>*</td>
<td>1</td>
</tr>
<tr>
<td>Hispanic</td>
<td>14</td>
<td>8.9</td>
<td>3</td>
</tr>
<tr>
<td>Asian/Other</td>
<td>6</td>
<td>4.6</td>
<td>7</td>
</tr>
<tr>
<td>Unknown</td>
<td>3</td>
<td>--</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>522</td>
<td>37.8</td>
<td>134</td>
</tr>
</tbody>
</table>

*Rate per 100,000

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 – 2007

*Rates not calculated for fewer than five incidents
Marital Status

Among older adults (65 and up), those who were divorced, widowed, or single had a higher risk of suicide than those who were married. For example, a divorced male in this age group was over three times more likely to commit suicide than a married male, and widowed men had a suicide rate four times higher than married men. Note that this is in addition to an already high rate of suicide in this age group.

![Figure 4.4: Suicide Rates* by Marital Status Age 65 Years and Older](chart)

*Estimated rates per 100,000, based on 2000 US Census marital status distribution
Source: County of San Diego Health and Human Services Agency, Division of Emergency Medical Services, Medical Examiner Database, 1998 - 2007
Note: Marital status unknown for 20 cases

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Male Number</th>
<th>Male Rate¹</th>
<th>Female Number</th>
<th>Female Rate</th>
<th>Total Number</th>
<th>Total Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>44</td>
<td>68.8</td>
<td>9</td>
<td>14.6</td>
<td>53</td>
<td>42.2</td>
</tr>
<tr>
<td>Married</td>
<td>222</td>
<td>21.5</td>
<td>36</td>
<td>4.3</td>
<td>258</td>
<td>13.7</td>
</tr>
<tr>
<td>Divorced</td>
<td>80</td>
<td>71.6</td>
<td>21</td>
<td>10.2</td>
<td>101</td>
<td>31.8</td>
</tr>
<tr>
<td>Widowed</td>
<td>158</td>
<td>90.8</td>
<td>66</td>
<td>8.9</td>
<td>224</td>
<td>24.4</td>
</tr>
<tr>
<td>Unknown</td>
<td>18</td>
<td>--</td>
<td>2</td>
<td>--</td>
<td>20</td>
<td>--</td>
</tr>
<tr>
<td>Total</td>
<td>522</td>
<td>37.8</td>
<td>134</td>
<td>7.3</td>
<td>656</td>
<td>20.3</td>
</tr>
</tbody>
</table>

¹Estimated rates per 100,000, based on 2000 US Census marital status distribution
Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 – 2007
Suicide Methods

Firearms again were by far the leading method of completed suicide among older adult men, accounting for 72%. Among older women, however, only 31% were attributed to firearms, with 39% choosing drugs/poisons.

Figure 4.5: Suicide Methods, Age 65 Years and Older

Source: County of San Diego Health and Human Services Agency, Division of Emergency Medical Services, Medical Examiner’s Database, 1998 - 2007
Section 4: Older Adults

Month

January had the highest number of suicides per month among older adults, while February and November had the fewest over this time period.

Figure 4.6: Suicides by Month, Age 65 Years and Older

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 - 2007
Toxicology by Gender

Toxicology testing was performed less often in suicide victims aged 65 and older than for younger age groups, ranging from 73 to 77% of cases tested for different drugs of abuse. Older adults were much less likely than younger suicide victims to test positive for drugs of abuse, with the most commonly encountered substances for this age group being antidepressants (34.6% positive), benzodiazepines (24.4% positive), and opiates (23.1% positive).

Table 4.4: Toxicology Results by Gender, Age 65 Years and Older, 2000 - 2007

<table>
<thead>
<tr>
<th>Substance</th>
<th>Male Tested</th>
<th>Male Positive</th>
<th>Female Tested</th>
<th>Female Positive</th>
<th>Total Tested</th>
<th>Total Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Alcohol &gt;=0.08%¹</td>
<td>366</td>
<td>89.1%</td>
<td>26</td>
<td>7.1%</td>
<td>95</td>
<td>90.5%</td>
</tr>
<tr>
<td>Alcohol &lt;0.08%¹</td>
<td>366</td>
<td>89.1%</td>
<td>17</td>
<td>4.6%</td>
<td>95</td>
<td>90.5%</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>293</td>
<td>71.3%</td>
<td>0</td>
<td>0.0%</td>
<td>83</td>
<td>79.0%</td>
</tr>
<tr>
<td>Opiates</td>
<td>295</td>
<td>71.8%</td>
<td>55</td>
<td>18.6%</td>
<td>86</td>
<td>81.9%</td>
</tr>
<tr>
<td>Cocaine metabolites</td>
<td>293</td>
<td>71.3%</td>
<td>2</td>
<td>0.7%</td>
<td>83</td>
<td>79.0%</td>
</tr>
<tr>
<td>Cannabinoids²</td>
<td>166</td>
<td>75.5%</td>
<td>0</td>
<td>0.0%</td>
<td>43</td>
<td>86.0%</td>
</tr>
<tr>
<td>Benzodiazepines²</td>
<td>166</td>
<td>75.5%</td>
<td>36</td>
<td>21.7%</td>
<td>43</td>
<td>86.0%</td>
</tr>
<tr>
<td>Antidepressant³</td>
<td>114</td>
<td>27.7%</td>
<td>35</td>
<td>30.7%</td>
<td>45</td>
<td>42.9%</td>
</tr>
</tbody>
</table>

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 2000 – 2007

1 In some cases, some or all of the alcohol detected could be a result of decomposition rather than exogenous use of alcohol

2 Results for cannabinoids and benzodiazepines are from 2004 – 2007

3 In suicides by traumatic or asphyxial methods, testing for antidepressants is unlikely to be performed unless the decedent is known or thought to have been prescribed antidepressant medications

Positive toxicology results for alcohol and/or drugs of abuse were found in 37.7% of male and 58.1% of female suicide victims age 65 and older. The actual number with positive toxicologies for any substance may be considerably higher, since this does not include many prescription and over the counter drugs that are not part of the routine toxicology screen.

Figure 4.7: Toxicology Results for Alcohol and Drugs of Abuse by Gender, Age 65 Years and Older, 2004 - 2007

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 2004 – 2007

Note: “Drugs of Abuse” includes methamphetamine, opiates, cocaine, cannabinoids, and benzodiazepines.
This graph does not include antidepressants
**Toxicology by Suicide Method**

Opiates, benzodiazepines, and antidepressants were highest in older adults who died from OD/Poisoning suicides, although hang/asphyxia and firearm suicides also had relatively high proportions of positive tests for these substances, unlike younger suicide victims.

**Table 4.5: Toxicology Results by Suicide Method, Age 65 Years and Older, 2000 – 2007**

<table>
<thead>
<tr>
<th>Suicide Method</th>
<th>Substance</th>
<th>Tested</th>
<th>Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>OD/Poison</td>
<td>Alcohol &gt;=0.08%</td>
<td>67</td>
<td>84.8%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>67</td>
<td>84.8%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>70</td>
<td>88.6%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>72</td>
<td>91.1%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>70</td>
<td>88.6%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids ²</td>
<td>35</td>
<td>92.1%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines ²</td>
<td>35</td>
<td>92.1%</td>
</tr>
<tr>
<td></td>
<td>Antidepressant ³</td>
<td>45</td>
<td>57.0%</td>
</tr>
<tr>
<td>Hang/Asphyxia</td>
<td>Alcohol &gt;=0.08%</td>
<td>54</td>
<td>90.0%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>54</td>
<td>90.0%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>46</td>
<td>76.7%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>47</td>
<td>78.3%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>46</td>
<td>76.7%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids ²</td>
<td>25</td>
<td>83.3%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines ²</td>
<td>25</td>
<td>83.3%</td>
</tr>
<tr>
<td></td>
<td>Antidepressant ³</td>
<td>24</td>
<td>40.0%</td>
</tr>
<tr>
<td>Firearm</td>
<td>Alcohol &gt;=0.08%</td>
<td>296</td>
<td>90.0%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>296</td>
<td>90.0%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>222</td>
<td>67.5%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>224</td>
<td>68.1%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>222</td>
<td>67.5%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids ²</td>
<td>124</td>
<td>72.9%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines ²</td>
<td>124</td>
<td>72.9%</td>
</tr>
<tr>
<td></td>
<td>Antidepressant ³</td>
<td>66</td>
<td>20.1%</td>
</tr>
<tr>
<td>Jump</td>
<td>Alcohol &gt;=0.08%</td>
<td>13</td>
<td>86.7%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>13</td>
<td>86.7%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>11</td>
<td>73.3%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>11</td>
<td>73.3%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>11</td>
<td>73.3%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids ²</td>
<td>8</td>
<td>80.0%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines ²</td>
<td>8</td>
<td>80.0%</td>
</tr>
<tr>
<td></td>
<td>Antidepressant ³</td>
<td>9</td>
<td>60.0%</td>
</tr>
<tr>
<td>Other</td>
<td>Alcohol &gt;=0.08%</td>
<td>31</td>
<td>93.9%</td>
</tr>
<tr>
<td></td>
<td>Alcohol &lt;0.08%</td>
<td>31</td>
<td>93.9%</td>
</tr>
<tr>
<td></td>
<td>Methamphetamine</td>
<td>27</td>
<td>81.8%</td>
</tr>
<tr>
<td></td>
<td>Opiates</td>
<td>27</td>
<td>81.8%</td>
</tr>
<tr>
<td></td>
<td>Cocaine metabolites</td>
<td>27</td>
<td>81.8%</td>
</tr>
<tr>
<td></td>
<td>Cannabinoids ²</td>
<td>17</td>
<td>77.3%</td>
</tr>
<tr>
<td></td>
<td>Benzodiazepines ²</td>
<td>17</td>
<td>77.3%</td>
</tr>
<tr>
<td></td>
<td>Antidepressant ³</td>
<td>15</td>
<td>45.5%</td>
</tr>
</tbody>
</table>

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 2000 – 2007

¹ In some cases, some or all of the alcohol detected could be a result of decomposition rather than exogenous use of alcohol

² Results for cannabinoids and benzodiazepines are from 2004 – 2007

³ In suicides by traumatic or asphyxial methods, testing for antidepressants is unlikely to be performed unless the decedent is known or thought to have been prescribed antidepressant medications
The suicide rate among older adults was highest in the North Coastal Health Service Region (HSR), which includes Carlsbad, Oceanside, Pendleton, and San Dieguito. The lowest rate was observed in the South HSR.

### Geographic Distribution

**Figure 4.8**

[Map of San Diego County showing suicide rates by health service region.]

**Table 4.6: Suicides by San Diego County Health Service Region Age 65 Years and Older 1998 - 2007**

<table>
<thead>
<tr>
<th>Health Service Region</th>
<th>Number</th>
<th>Rate(^\d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Coastal</td>
<td>129</td>
<td>22.92</td>
</tr>
<tr>
<td>North Central</td>
<td>136</td>
<td>20.27</td>
</tr>
<tr>
<td>Central</td>
<td>74</td>
<td>18.03</td>
</tr>
<tr>
<td>South</td>
<td>76</td>
<td>17.46</td>
</tr>
<tr>
<td>East</td>
<td>112</td>
<td>21.60</td>
</tr>
<tr>
<td>North Inland</td>
<td>114</td>
<td>17.85</td>
</tr>
<tr>
<td>Unknown</td>
<td>15</td>
<td>--</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>656</strong></td>
<td><strong>20.27</strong></td>
</tr>
</tbody>
</table>

\(^\d\) Rate per 100,000

Source: County of San Diego Health and Human Services Agency, Emergency Medical Services, Medical Examiner Database, 1998 - 2007
End Note

Suicide is clearly a major cause of death in San Diego County. It is also a particular burden for certain age, gender, and ethnic groups, as well as certain geographic areas.

Nonetheless, suicide is, in many cases, preventable. At least 90 percent of all people who kill themselves have a mental or substance abuse disorder, or a combination of disorders.\(^1\) Thus, early recognition and treatment of mental illness and substance abuse problems are among the most promising approaches to suicide prevention. So, too, are strategies that target known risk factors, for example, the reduction in access to lethal suicide methods.

Putting these strategies to work requires a major investment in public health action, which in turn requires significant public awareness of the need for change. This report aims to be one means to help raise the public awareness necessary to achieve that end and reduce the rate of suicide in San Diego County.

**Suicide Prevention Resources**

**Suicide and Crisis Hotlines  Toll-Free/ 24hours/ 7 days a week**

**San Diego County - United Behavioral Health - Access and Crisis Line**

- 1-800-479-3339
- (619) 641-6992 TDD (for hearing impaired)

**USA National Suicide Hotlines**

- 1-800-SUICIDE (1-800-784-2433)
- 1-800-273 TALK (1-800-273-8255)
- 1-877-SUICIDA (1-877-784-2432)  (Spanish speakers available)
- 1-866-4-U-TREVOR (1-866-488-7386) (For gay and questioning youth)

**Additional References and Resources**

**CDC Fact Sheets**

**Understanding Suicide Fact Sheet**


The CDC’s 2-page fact sheet is intended for the general public and provides a basic overview of suicide.

**Suicide: Facts at a Glance**

[http://www.cdc.gov/ncipc/dvp/Suicide/SuicideDataSheet.pdf](http://www.cdc.gov/ncipc/dvp/Suicide/SuicideDataSheet.pdf)

This CDC fact sheet provides up-to-date data and statistics on suicide.

**Other Fact Sheets**

**Facts About Suicide and Depression**


**Elderly Suicide Fact Sheet**


**Older Adults: Depression and Suicide Facts**


**Youth Suicide Fact Sheet**

2006 Fact Sheet on Suicide: Adolescents and Young Adults
http://nahic.ucsf.edu/downloads/Suicide.pdf

Mental Health Risk Factors Among GLBT Youth
http://www.nami.org/TextTemplate.cfm?Section=Fact_Sheets1&Template=/ContentManagement/ContentDisplay.cfm&ContentID=48112

African American Suicide Fact Sheet

Suicide Among Black Americans

Suicide Among Hispanic Americans

Suicide Among Asian Americans/Pacific Islanders

Suicide Among American Indians/Alaska Natives

Online Reports and Publications

California Strategic Plan for Suicide Prevention
http://www.dmh.ca.gov/MHSOAC/docs/Meetings/2008/Feb/CODSPACRecs1107.pdf
Recommendations of the Suicide Prevention Plan Advisory Committee to the California Department of Mental Health.

National Strategy for Suicide Prevention: Goals and Objectives for Action
http://www.mentalhealth.org/publications/allpubs/SMA01-3517/
This U.S. Department of Health and Human Services document provides goals and objectives for a blueprint for the nation to take action to prevent suicide.

Reporting on Suicide: Recommendations for the Media
Recommendations to improve the way suicide is covered in the media.

Web Sites

American Association of Suicidology (AAS)
http://www.suicidology.org

American Foundation for Suicide Prevention (AFSP)
http://www.afsp.org

Community Health Improvement Partners (CHIP)
www.sdchip.org
The Jed Foundation
http://www.jedfoundation.org

National Alliance for the Mentally Ill (NAMI)
http://www.nami.org

National Institute of Mental Health
http://www.nimh.nih.gov

National Strategy for Suicide Prevention
http://www.mentalhealth.org/suicideprevention/

Mental Health America
http://www.nmha.org

Substance Abuse and Mental Health Services Administration
www.samhsa.gov

Suicide Prevention Action Network USA (SPAN USA)
http://www.spanusa.org

Suicide Prevention Resource Center (SPRC)
http://www.sprc.org

Survivors of Suicide
www.survivorsofsuicide.com

Survivors of Suicide Loss, San Diego
www.soslsd.org

The Trevor Project (for gay and questioning youth)
www.thetrevorproject.org

Yellow Ribbon International Suicide Prevention Program
http://www.yellowribbon.org

Yellow Ribbon Suicide Prevention Program/Light for Life Foundation of Southern California
www.yellowribbonsd.org