

# MENTAL HEALTH AND MENTAL DISORDERS

## Background

According to the National Institute of Mental Health (NIMH), annually, an estimated 13 million American adults (approximately 1 in 17) have a seriously debilitating mental illness (NIMH, 2008). Furthermore, mental health disorders are the leading cause of disability in the U.S., accounting for 25% of all years of life lost to disability and premature mortality (WHO, 2004). Moreover, in 2007, suicide was the 11<sup>th</sup> leading cause of death in the U.S., accounting for over 34,500 deaths (NVSS, 2010).

Mental health and mental illness are not polar opposites, but points on a continuum. Somewhere in the middle of that continuum are “mental health problems,” which most people experience at some point in their lives. The boundaries between mental health problems and milder forms of mental illness are often indistinct, just as they are in many other areas of health. At the far end of the continuum lie disabling mental illnesses such as major depression, schizophrenia and bipolar disorder. Left untreated, these disorders can become devastating. Recent psychiatric epidemiological studies have suggested that most mental illnesses begin far earlier in life than previously believed (Insel, 2005).

Importantly, one recent study, the National Comorbidity Survey Replication (NCS-R), reported an overall 12-month prevalence of any mental illness to be in the range of 30%, with an estimated 46% of Americans experiencing some form of mental illness during their lifetimes. Yet, the study concluded:

*Most people with mental disorders in the United States remain either untreated or poorly treated. Interventions are needed to enhance treatment initiation and quality.*

*Arch Gen Psychiatry. 2005;62:629-640*

The causes of mental illness are thought to be related to a variety of biochemical, genetic and environmental factors, which could include (NIMH, 2010; U.S. Public Health Service, 1999):

- Having other biological relatives with a mental illness
- Malnutrition or exposure to viruses before birth, which is linked to schizophrenia
- Stressful life situations, such as financial problems, a loved one's death or a divorce
- Chronic medical conditions, such as cancer
- Combat
- Taking psychoactive drugs during adolescence
- Childhood abuse or neglect
- Lack of friendships or healthy relationships

## Types of Mental Illness

Many different conditions are recognized as mental illnesses. The more common types include:

**Anxiety disorders**, which affect over 18% of adults in the U.S., are characterized by a person responding to certain objects or situations with fear and dread, as well as with physical signs of anxiety or nervousness. An anxiety disorder is diagnosed if the person's response is not appropriate for the situation, if the person cannot control the response or if the anxiety interferes with normal functioning. Some common signs of acute anxiety include:

- Feelings of fear or dread
- Trembling, restlessness and muscle tension
- Rapid heart rate
- Lightheadedness or dizziness
- Perspiration
- Cold hands/feet
- Shortness of breath

Anxiety disorders include generalized anxiety disorder, post-traumatic stress disorder (PTSD), obsessive-compulsive disorder (OCD), panic disorder, social anxiety disorder and specific phobias (U.S. Public Health Service, 1999).

**Mood disorders** affect almost 7% of adults annually in the U.S. and include a group of mental disorders characterized by depression or mania. The following group of mood disorders has been described by the U.S. Surgeon General in his 1999 report on mental illness, and includes:

Major depressive disorder (also known as unipolar major depression) – when a person has five or more symptoms of depression for at least two weeks. These symptoms include feeling sad, hopeless, worthless or pessimistic. In addition, people with major depression often have behavior changes, such as new eating and sleeping patterns.

Bipolar disorder – involves periods of excitability (mania) alternating with periods of depression. Changes between mania and depression can be very abrupt.

Dysthymia – is a chronic type of depression in which a person's moods are regularly low. However, it is not as extreme as other types of depression.

Cyclothymia – is a mild form of bipolar disorder in which a person has mood swings from mild or moderate depression to euphoria and excitement, but stays connected to reality.

Mood disorders have many serious complications, including:

- Suicide and self-inflicted injury
- Increased risk of alcohol- and drug-related problems
- Increased risk of tobacco dependence

- Increased risk of problems with physical health and premature death due to medical illness

**Schizophrenia** is one of a group of severe psychotic disorders that cause abnormal thinking and perceptions and it affects slightly more than 1% of the adult population in the U.S. (U.S. Public Health Service, 1999). People with psychoses lose touch with reality. Two of the most common symptoms are hallucinations, experiencing images or sounds that are not real, and delusions, which are the false beliefs that the ill person accepts as true, despite evidence to the contrary (MedlinePlus, 2010).

### Comorbidity

An estimated 31% of persons with one mental disorder have co-existing illnesses, disease or health problems, also known as comorbidity (NIAAA, 2005). Some examples of co-existing illnesses:

- Depression often accompanies anxiety disorders such as post-traumatic stress disorder (PTSD), obsessive-compulsive disorder, panic disorder, social phobia and generalized anxiety disorder. Persons with PTSD are especially prone to co-occurring depression.
- Alcohol and other substance abuse or dependence also commonly co-occurs with depression and anxiety disorder. Research indicates that the co-existence of mood disorders and alcohol dependence is as high as 28.1% among men and 53.5% among women (NIAAA, 2005).
- Depression also often co-exists with other serious medical illnesses such as heart disease, stroke, cancer, HIV/AIDS, diabetes and Parkinson’s disease. Studies have shown that people who have depression in addition to another serious medical illness tend to have more severe symptoms of both depression and the medical illness, more difficulty adapting to their medical condition, and more medical costs than those who do not have co-existing depression.

### San Diego County – Prevalence of Serious Mental Illness

The estimated prevalence of individuals with serious mental illness in San Diego County presented on the following table is based on information provided by the California Department of Mental Health. These prevalence estimates do not take into account persons with milder mental health problems such as phobias, anxiety, mild depression, etc.

Overall, based on the 2007 prevalence estimates, which were updated in October 2009, there are 141,420 persons in San Diego County with serious mental illness, representing 4.9% of the household population in San Diego County (DMH, 2007). These estimates do not include persons in supervised care or in custody in institutions or those living in group quarters (all people who live in group quarters other than institutions such as college dormitories, military quarters, and group homes).



**Estimated Prevalence of Need for Mental Health Services  
San Diego County — 2007**

	Total Household Population			Households under 200% Poverty Level		
	Prevalence	Population	Percent	Prevalence	Population	Percent
<b>All ages</b>	141,420	2,874,761	4.92%	72,538	881,768	8.23%
<b>Youth – 0 to 17</b>	55,066	744,586	7.40%	26,559	299,995	8.85%
<b>Young adults – 18 to 24</b>	9,352	283,656	3.29%	6,462	129,778	4.98%
<b>Adults – 25 to 60</b>	69,048	1,501,652	4.60%	35,488	346,699	10.24%
<b>Older adults 60+</b>	7,953	344,867	2.31%	4,029	105,296	3.93%

There is a lack of information concerning how well persons with serious mental illness in San Diego County are served. The following presents information from three existing sources, Mental Health Services of the County of San Diego, OSHP&D hospital discharge data, and the Emergency Department Discharge Patient Summary report. Missing from this data is information regarding the mental health services provided by private physicians and other private practice mental health providers in their offices. (Note that OSHP&D provides annual data related to primary clinic utilization, which contains the number of primary care clinic encounters with a diagnosis of mental disorder. These are based on ICD-9-CM codes 290 – 319. During 2009, primary care clinics in San Diego County reported 73,269 patient encounters with a diagnosis of mental disorder, which represented 4% of all clinic encounters.)

**Who is most impacted?**

The following information, provided by Mental Health Services of the County of San Diego represents a subset of services provided to those receiving mental health services and does not include services provided by private physicians and other private practice mental health providers in their private offices.

**Youth – ages 0 to 17**

During fiscal year 2007 – 2008, the Children’s Mental Health Services (CMHS) of the County of San Diego Health and Human Services provided services to more than 17,600 youths. The demographic distribution of clients most often served by CMHS includes: males (60%), adolescents, ages 12 – 17 (55%), and Hispanics (51%).

The most common diagnoses among youth served by the CMHS are:

- Oppositional defiant disorders, including conduct and disruptive behaviors – 19.7%
- Adjustment disorders – 19.5%
- Depressive disorders – 19.0%
- Attention deficit hyperactivity disorder – 15.7%

## Adults and older adults

During fiscal year 2007 – 2008, the Adult Mental Health Services (AMHS) of the County of San Diego Health and Human Services Agency provided services to 5,840 transition-age youth (TAY), 18 to 24 years of age, 31,496 clients ages 25 to 59 and 3,796 clients age 60 and older. The demographic distribution of those most often served by AMHS includes: males (50%); adults, ages 25 to 59 (77%); and white (51%), Hispanic (22%) and African American (13%).

Among all adults served by AMHS, the most common diagnoses are:

- Major depression disorder – 25%
- Schizophrenia and schizoaffective disorder – 23%
- Other depression/adjustment disorders – 16%
- During FY07-08, 25% of adult clients receiving services who had a primary diagnosis on record also had a secondary substance abuse diagnosis

## Older adults (60 years and older)

During FY07/08, 75% of older adults served by AMHS were between the ages of 60 and 69.

- The most common diagnosis was major depression disorder (31%), followed by schizophrenia and schizoaffective diagnosis (25%).
- Females made up 60% of the older adult population served.
- AMHS older clients are predominantly white (56%), followed by Hispanic (16%) and African American and Asian (8%).
- The first mental health services received by 39% of new AMHS clients was through the Psychiatric Emergency Response Team (PERT).

## Trends

- Over the past two years, the number of CMHS clients has increased slightly from 16,874 in FY05-06 to 17,600 in FY07/08, a 4.3% increase.
- Since FY06/07, there has been an 8% increase in AMHS clients served, with 41,132 adults and older adults served in FY07/08.

## Emergency Department Discharges

During 2008, there were 25,468 discharges from San Diego County hospital emergency departments (EDs) with a primary diagnosis of mental disorder, accounting for 4.1% of all ED discharges. (Note: The primary diagnosis of mental disorder includes a wide range of diagnoses, including alcoholic and drug psychoses, dependence and abuse.) The overall rate of ED discharges with a diagnosis of mental disorder was 809.5 per 100,000 population.

**Emergency Department Discharge Trend –**

Between 2006 and 2008, in San Diego County, 69,246 persons were discharged from hospital EDs with a principal diagnosis related to mental disorders, averaging 23,081 persons per year. During this three-year period, the annual number of ED discharges following treatment related to mental disorders increased by 21.8%. The age-adjusted ED discharge rate has increased from 681.8 per 100,000 in 2006 to 809.5 per 100,000 in 2008, a change of 18.7%.

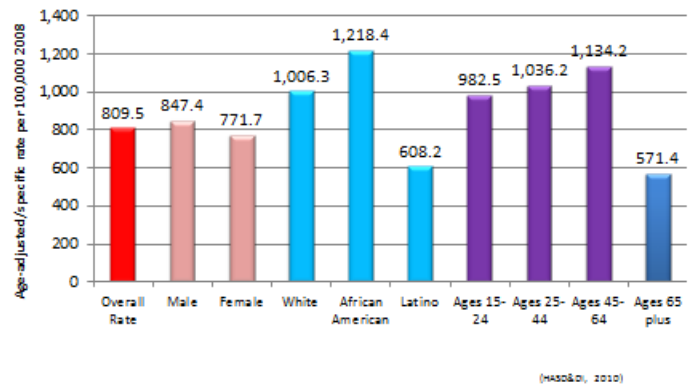
Those most impacted by ED discharges following diagnosis of mental disorders during 2008, as measured by the rate per 100,000, include males, whites and African Americans and persons ages 15-64. Additionally, ED discharge rates in the Central and East regions were higher than the other regions in the County, 1,046.1 and 897.0 per 100,000, respectively.

Hospitalizations

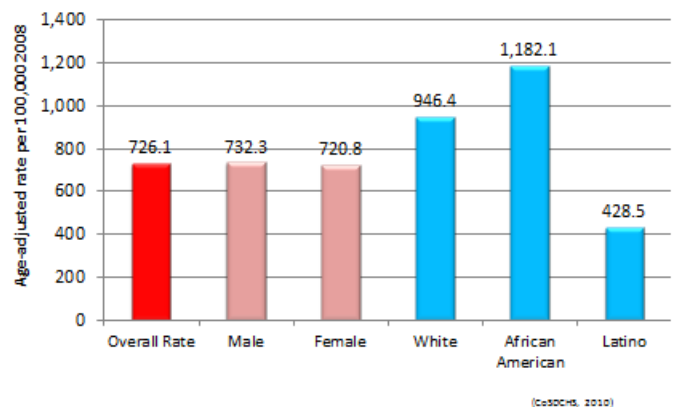
During 2008, there were 22,971 hospitalizations in San Diego County hospitals with a principal diagnosis code of mental disorders (ICD-9-CD code 290 – 319), accounting for 7.4% of all hospitalizations. These hospitalizations included 17,556 with a principal diagnosis of psychoses, accounting for 59% of all mental health hospitalizations. There were 6,210 with a principal diagnosis of schizophrenic disorders and 4,583 with a principal diagnosis of major depressive disorder, accounting for 27% and 20% of all mental health hospitalizations, respectively (CoSDEPI, 2010).

**Hospitalization Trend –** Between 2006 and 2008, there were 66,708 hospitalizations in San Diego County with a principal diagnosis related to mental disorders, averaging 22,236 per year. During this three-year period, the annual number of hospitalizations related to mental disorders increased by 4.9%. The age-adjusted hospitalization rate has increased from 714.3 per 100,000 in 2006 to 726.1 per 100,000 in 2008, a change of 1.7%.

ED Discharges with Principal Diagnosis of Mental Disorder  
San Diego County, 2008

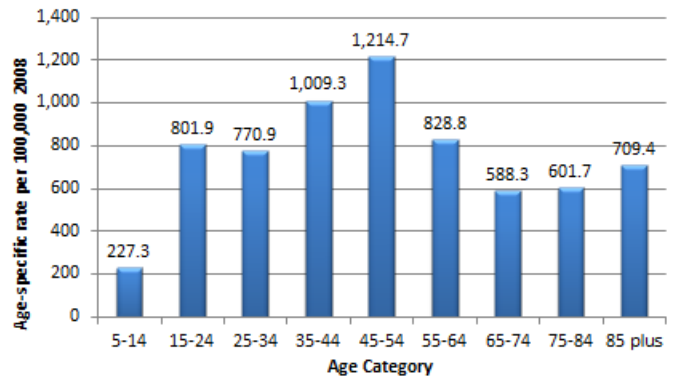


Hospitalizations with a Principal Diagnosis of Mental Disorder  
San Diego County, 2008



Those most impacted by hospitalizations for mental disorders during 2008, as measured by the age-adjusted (age-specific for age categories) rate per 100,000, include males, whites and African Americans and persons ages 35-54. Additionally, age-adjusted hospitalization rates in the Central and East regions were higher than the overall County rate, 1,129.2 and 1,009.9 per 100,000, respectively.

Hospitalizations with a Principal Diagnosis of Mental Disorder  
San Diego County, 2008



(CaSOC-HS, 2010)



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## Suicide and Self-Inflicted Injury

Suicide occurs when a person ends his or her life, and it is a major, preventable public health problem. In 2008, suicide was the eighth-leading cause of death in San Diego County, accounting for 359 deaths, with an overall age adjusted rate of 11.3 suicide deaths per 100,000 people (SDEpi, 2010). Suicide deaths are only part of the problem: more people survive suicide attempts than actually die. Those who attempt suicide are often seriously injured and require medical and psychiatric care. The following section reviews the prevalence of suicide in San Diego County, along with self-inflicted injury hospitalizations and ED discharges following treatment for self-inflicted injuries. Included in this section are trends and profiles of those most impacted.

Self-inflicted injury is the deliberate harm of one's own body to cause injury. The self-inflicted injury data shown in this report does not indicate if the intent was suicidal. Common types of self-inflicted injury include cutting, scratching, hitting, biting and burning.

While the data reported here represents those who have committed or attempted to commit suicide, it has been estimated that there may be from eight to 25 attempted suicides per every one suicide death (Moscicki, 2001).

### Risk Factors for Suicide

According to the National Institute of Mental Health (NIMH) there are at least eight generally accepted risk factors for suicide. These include:

- Depression and other mental disorders, or a substance-abuse disorder (often in combination with other mental disorders). More than 90 percent of people who die by suicide have these risk factors.
- Prior suicide attempt.
- Family history of mental disorder or substance abuse.
- Family history of suicide.
- Family violence, including physical or sexual abuse.
- Firearms in the home, the method used in more than half of suicides.
- Incarceration.
- Exposure to the suicidal behavior of others, such as family members, peers, or media figures.



## Suicide

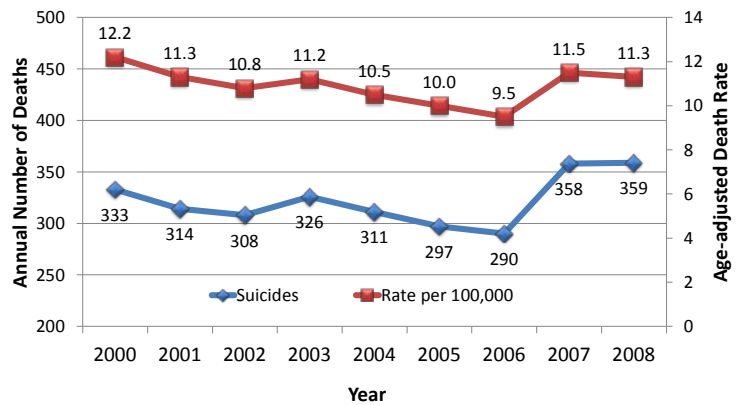
During 2008, 359 San Diego residents died as a result of suicide, and the age-adjusted rate was 11.3 per 100,000 population. Between 2000 and 2008, there was a 3.3% increase in the number of suicides; however, the rate of suicides declined by 7.4%. Between 2000 and 2008, 2,896 San Diegans died as a result of suicide.

Review of non-natural causes of death in San Diego County between 1998 and 2007 found that suicide was the second leading cause of non-natural death for all ages. During this period:

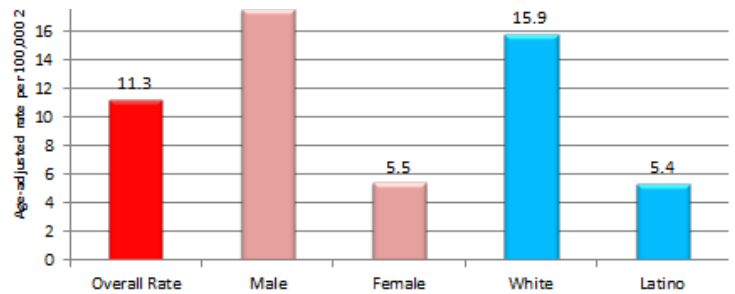
- Among those ages 55 to 74, suicide was the leading cause of non-natural death
- Among those ages 10 to 14, 20 to 54 and 75 and older, suicide was the second leading cause of non-natural death

Those most impacted by suicide during 2008, as measured by the age-adjusted (age-specific for age categories) rate per 100,000, include males, whites, persons between the ages of 35 and 64, and those ages 85-plus. Additionally, age-adjusted suicide rates in the East, North Coastal and Central regions were higher than the overall County rate, 13.8, 12.4 and 11.7 per 100,000, respectively.

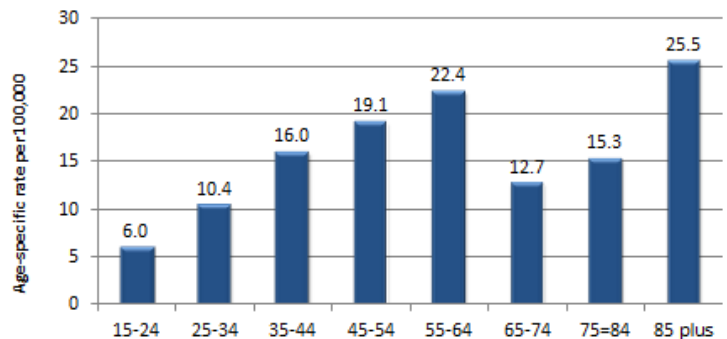
**Suicide Deaths**  
San Diego County, 2000-2008



(CoSDCHS & SDEpi, 2010)



**Suicides by Age Category**  
San Diego County, 2008



(SDCF, 2010)



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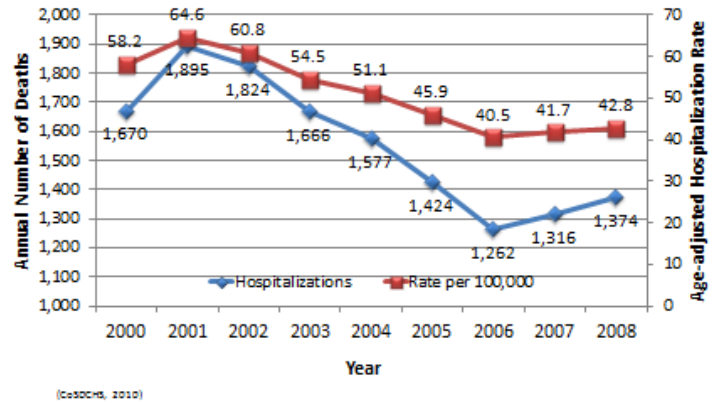
## Self-Inflicted Injury

Self-inflicted injury, as reflected by hospitalizations and ED discharges, are four to seven times more common than completed suicides. The following provides trends, and profiles those most impacted by self-inflicted injury.

**Hospitalizations** – Between 2000 and 2008, 14,008 persons in San Diego County were hospitalized as a result of self-inflicted injuries, averaging 1,556 persons per year. During this nine-year period, the annual number of hospitalizations related to a self-inflicted injury decreased by 17.7%. The age-adjusted hospitalization rate decreased by 26.5%.

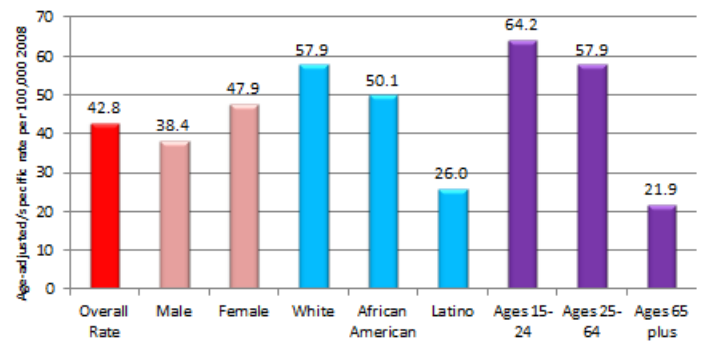
Those most often hospitalized as a result of self-inflicted injury during 2008, as measured by the age-adjusted (age-specific for age categories) rate per 100,000, include females, whites and African Americans, and persons ages 15 or 64. Additionally, hospitalization rates in the Central, South and East regions were higher than the overall County rate, 63.4, 52.4 and 49.1 per 100,000, respectively.

Self-Inflicted Injury Hospitalizations  
San Diego County, 2000-2008



(CoSOPHS, 2010)

Hospitalizations due to Self-Inflicted Injury  
San Diego County, 2008



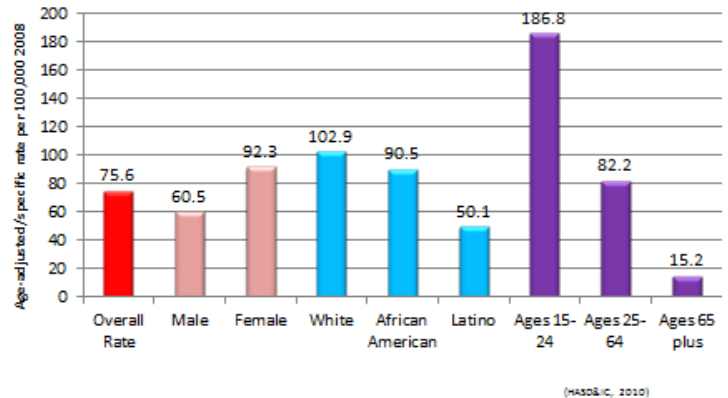
(CoSOPHS, 2010)



**Emergency Department Discharges** – Between 2006 and 2008, 6,525 persons in San Diego County were discharged from hospital EDs following treatment for self-inflicted injuries, averaging 2,175 persons per year. During this three-year period, the annual number of ED discharges following treatment for self-inflicted injuries increased by 27.4%. Between 2006 and 2008, the age-adjusted ED discharge rate increased by 24.6%, from 60.7 to 75.6.

Those most impacted by self-inflicted injury based on ED utilization during 2008, as measured by the rate per 100,000, include females, whites and African Americans, and persons ages 15 or 64. Additionally, ED discharge rate of 135.8 per 100,000 in the East Region was the highest of the six County regions.

Emergency Department Discharges due to Self-Inflicted Injury San Diego County, 2008



Health consequences

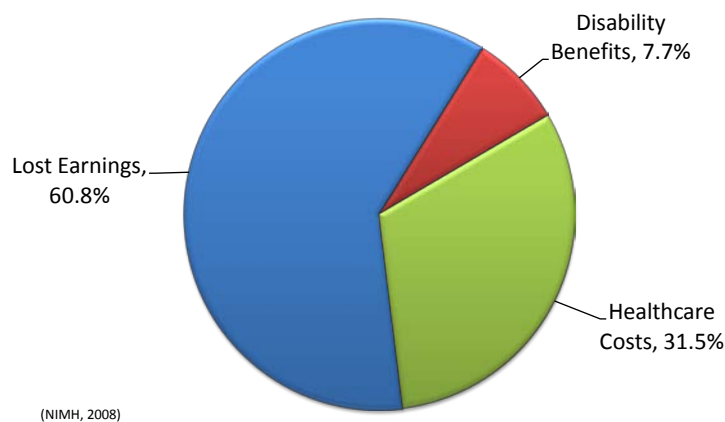
The health consequences related to serious mental illness (SMI) as recently reported by the Substance Abuse and Mental Health Services Administration (SAMHSA) include:

- Up to 83% of people with SMI are overweight or obese.
- People with SMI have shortened life spans, on average living only to age 53. Those with SMI die 25 years earlier than other Americans, largely due to treatable medical conditions.
- More than 90% of those who die by suicide have a mental disorder.
- Persons with SMI are more likely to have poor health status, smoke and exercise infrequently.
- According to the NIMH, mental disorders are the leading cause of disability in the U.S. among persons ages 15 to 44.
- Over 50% of students with a mental disorder age 14 and older drop out of high school.

## Economic costs

The cost of serious mental illness is overwhelming. In the U.S., these disorders cost an estimated \$318 billion in direct health costs and indirect costs (NIMH, 2008), including decreased productivity, absenteeism, and lost jobs and wages. There is also the additional burden of pain and suffering, family and friendship issues and suicide.

## Cost of Serious Mental Illness: \$318 Billion a Year



## Emerging Issues

Healthy People 2020 has identified several mental health issues that have emerged among some special populations. These include:

- **Post-traumatic stress disorder (PTSD)** among veterans and others who have experienced some type of traumatic event. These traumatic events may include:
  - War
  - Rape
  - Natural disasters
  - A car or plane crash
  - Kidnapping
  - Violent assault
  - Sexual or physical abuse
  - Medical procedures (especially in children)

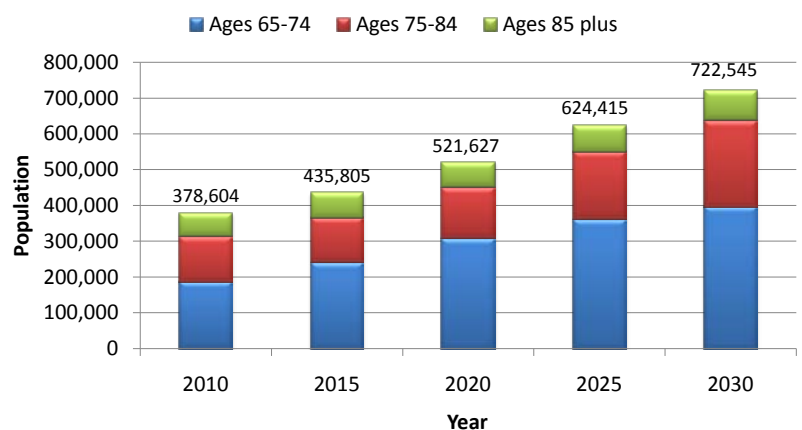
According to the U.S. Department of Veterans Affairs (VA), National Center for PTSD, about 60% of men and 50% of women experience at least one trauma in their lives. Women are more likely to experience sexual assault and child sexual abuse. Men are more likely to experience accidents, physical assault, combat, disaster or to witness death or injury. Of those experiencing some type of trauma, only a small percent develop PTSD. Some general population estimates of the prevalence of PTSD provided by the National Center for PTSD (VA, 2010) include the following:

- 7-8% of the general population will have PTSD at some point in their lives.
- 5.2 million adults have PTSD during a given year. This is only a small portion of those who have gone through a trauma.
- Women are more likely than men to develop PTSD. About 10% of women develop PTSD sometime in their lives compared with 5% of men.

Among veterans, the VA estimates that PTSD occurs at the following rates:

- 11-20% of veterans of the Iraq and Afghanistan wars
- 10% of Gulf War veterans
- 30% of Vietnam veterans

### Projected Growth of the Older Population – 65 Plus San Diego County, 2010 - 2030



SANDAG, 2010

• **Aging**, as the baby boom population grows older, will present challenges for the treatment of older adults. These include:

- Increases in the number of new cases of depression and the accompanying risk of suicide among older adults
- Increases in the number of new cases of dementia and the associated costs of treatment
- The co-occurrence of depression and chronic diseases associated with aging, such as cardiovascular disease, rheumatologic disorders, diabetes and high blood pressure
- An sufficient geriatric mental health workforce to provide treatment and care for this population

In 2010, an estimated 378,604 persons ages 65 years or older lived in San Diego County, over 65,000 of whom were 85 years or older. Since 2000, the population of those 65 or older has increased by over 20% and is expected to grow steadily over the next 20 years. Current projections indicate that by the year 2030, this population will account for almost one in five residents of San Diego County.

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