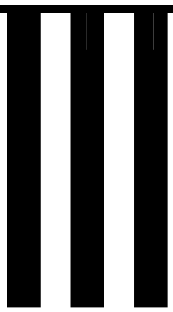
Fourteenth in a Series of Technical Reports



Suicide Prevention Efforts for Individuals with Serious Mental Illness: Roles for the State Mental Health Authority

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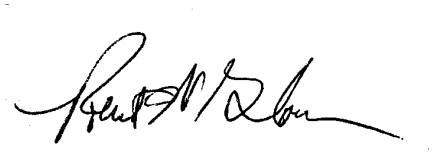
Preface

Suicide is a preventable tragedy. All too often suicide and the warning signs of suicide are not topics that are discussed or even considered. We know most people who complete suicide had contact with a health professional within a year of their death; 40 percent within a month of their death. The opportunity to intervene went unnoticed or the intervention was insufficient.

The following Technical Report on Suicide Prevention Efforts for Individuals with Serious Mental Illness: Roles for the State Mental Health Authority outlines the State Mental Health Authority's leadership role in preventing suicide among those most at risk, persons with serious mental illness. It suggests ways in which State Mental Health Authorities can increase collaboration, raise awareness of the signs of suicide, and intervene to save lives.

While State Mental Health Authorities play a significant part, achieving the goals and objectives contained in the National Strategy for Suicide Prevention requires the involvement of all sectors of our society. Broad-based public education about steps to prevent suicide is needed for multiple stakeholders, including health professionals, educators, social service providers, faith-leaders, policy makers, parents, peers, and individuals at risk.

With over 32,000 suicides a year in the United States –one every 16 minutes—there is precious time to lose. Researchers have produced a strong and ever-growing evidence base. The most critical knowledge is condensed in this report and it provides a guide to activities that will ensure the greatest effect in your State. It is time to do what we know.



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Executive Summary

Individuals with serious mental illness (SMI) constitute 6-8% of the U.S. population, but account for several times that proportion of the 32,000 suicides that occur each year in the country. For people with virtually every category of SMI, suicide is a leading cause of death, with lifetime risks ranging from 4-8%. Inadequate assessment of suicide risk and insufficient access to effective treatments are major contributing factors. Still, a large majority of those with SMI neither attempt nor die by suicide and predicting those who will presents a daunting clinical challenge. Absent foolproof methods to predict suicidal behavior, mental health professionals must rely on clinical skills and judgment to identify, accurately assess, and manage the care of those at heightened risk for suicide.

Suicide attempts and deaths by suicide send ripples through the U.S. economy, costing up to $25 billion per year. However, the cost cannot be measured solely in dollars. One must also factor in the emotional toll extracted from attempt survivors and the family members and friends who are so deeply affected by both attempted and completed suicides. Stigmatizing reactions add to the burdens survivors already bear, often intensifying isolation and secrecy. The complicated grief that can accompany surviving a loved one's suicide may itself elevate the risk for suicide. People with SMI who have previously attempted suicide advocate for a more robust and supportive system of care. They also seek opportunities to share their personal experiences with others facing similar situations and find relief when they do. Survivors of a loved one's suicide seek greater access to survivor support groups for all who are bereaved by suicide—places where they can connect with others who are experiencing similar grief.

Nearly a decade has passed since the U.S. Public Health Service released the "Surgeon General's call to action to prevent suicide." Since that time, most states have developed cross-functional suicide prevention task forces in the model of the U.S. Air Force's highly successful effort, and through them, implemented comprehensive, multi-layered programs that reduce suicide among high-risk and high interest populations. The National Association of State Mental Health Program Directors (NASMHPD) has also promoted policies and practices to prevent suicide over that time. For example, in its tenth technical report on "Prevention Approaches for State Mental Health Authorities," NASMPHD's position statement on mental health promotion and mental illness prevention endorsed increased efforts in preventing suicidal behaviors and their sequellae.

Those who die by their own hand have commonly in the days and weeks prior to their suicides sought services from an array of community-level service providers. Consequently, telephone crisis services, emergency departments, inpatient and outpatient mental health services, and primary care settings all hold the potential of significantly reducing the toll of suicide by improving internal practices and inter-agency collaboration. These improvements must include training staff to deliver the various effective treatments that have been shown to reduce attempts and completed suicides in those with mental illnesses. These evidence-based treatments must be combined with more comprehensive risk management strategies, including reducing access to lethal

means such as firearms and pharmaceuticals. Delivering effective care through integrated delivery systems is key to achieving meaningful reductions in suicidal behaviors by people with SMI. These improved delivery systems should be complemented by initiatives to reduce stigma and increase understanding and support for individuals with mental illness.

NASMHPD's Medical Directors' Council and the national Suicide Prevention Resource Center (SPRC) collaborated on this report at the request of the NASMHPD Board. Information used in this report was gathered from presentations and commentary by participants in a workgroup meeting in January, 2007, supported by the suicide prevention literature. This report was limited in scope to the following priorities:

- Understanding the characteristics and dynamics of individuals with SMI who attempt or die by suicide;
- Considering improvements to suicide prevention activities that can be made through the leadership of the state mental health authority;
- Applying person-centered approaches to suicide prevention; and
- Proposing a conceptual model for the state mental health authority (SMHA) to use in improving the system of care for those with SMI , thereby reducing their risk of suicide.

This report makes eleven specific recommendations that, when implemented, should substantially reduce the toll from suicidal behaviors among persons with SMI. Many in the general population will benefit, as well. Most of the recommendations promote a collaborative, inter-agency approach, requiring leadership investments by the SMHA. The recommendations are:

1. The Governor of each state should appoint a state advisory council to advance suicide prevention;
2. The State Mental Health Authority (SMHA) should ensure suicide prevention programs and practices are in place for persons with SMI, working closely with other principals on the state suicide prevention advisory council;
3. The public mental health system should support and collaborate with crisis hotlines to ensure individuals at risk for suicide, including those who have made a suicide attempt, can readily access high quality crisis support services;
4. The SMHA and the State Health Authority (SHA) should lead efforts to improve collaboration and information sharing and surveillance between and among systems of care for all persons, but especially for persons with SMI. These efforts should promote the use of standard terminology;
5. The SMHA, in collaboration with the SHA, should initiate policies and practices that promote improved continuity of care for individuals at heightened risk for suicide following discharge from emergency departments for suicide attempts and inpatient psychiatric hospitalization;
6. The SMHA, in collaboration with the SHA, should require screening for suicide risk at all primary care appointments for those individuals who exhibit risk factors such as depression or substance abuse;
7. The SMHA, in collaboration with the SHA, should develop and implement strategies to reduce access to lethal means of suicide;

8. The SMHA, in collaboration with the SHA, should strengthen psycho-education programs in communities and for at-risk populations. Objectives should include eliminating stigma associated with mental illness, care seeking, and recovery from a suicide attempt;
9. The SMHA, in collaboration with the SHA, should develop and promote new models for providing evidence-based services over the life course for those who have attempted suicide, particularly for those who have made multiple or medically serious attempts;
10. The SMHA should implement strategies to improve training of mental health professionals in evidence-based treatments that reduce rates of suicidal behaviors among the mentally ill; and
11. NASMHPD should increase its efforts to advance suicide prevention through its work in the state and federal policy arenas.

Introduction

The National Association of State Mental Health Program Directors (NASMHPD) Medical Directors Council developed this fourteenth technical report through a review of materials and extensive discussions at a work group meeting held January 22-23, 2007, in Washington, D.C. Participants included State Mental Health Authorities and medical directors, as well as experts from the national Suicide Prevention Resource Center (SPRC), the Suicide Prevention Action Network USA, the National Suicide Prevention Lifeline, Project Return: The Next Step, Department of Veterans Affairs, and the Universities of Connecticut, Massachusetts, Rochester, and Washington. A complete list of participants is included as Attachment A.

Primary sources of data and information used in this report were gathered from presentations and commentary from work group participants and the suicide prevention literature. Additionally, the work group consulted with experts in the mental health and suicide prevention fields. Understanding the vastness of the subject matter of this report, the work group participants narrowed the scope of this report to the following priorities:

- Understanding the characteristics and dynamics of individuals with SMI who attempt or die by suicide;
- Considering improvements to suicide prevention activities that can be made through the leadership of the SMHA;
- Applying person-centered approaches to suicide prevention; and
- Proposing a conceptual model for the SMHA to use in improving the system of care for those with SMI and thereby reducing their risk of suicide.

This report begins by summarizing the epidemiology of suicidal behaviors among those with SMI. A discussion of the risk and protective factors that are common among the various categories of mental illness is followed by information about factors specific to each. Next, perspectives of individuals with SMI who have survived their own attempts and those who have survived the suicide of a loved one are discussed. The remainder of the report describes generally accepted approaches for preventing suicide and how they should inform the work and involvement of the SMHA. These approaches include the role of cross-functional task forces, initiatives for various settings of care and service delivery, and risk management strategies. Conclusions and recommendations are offered to guide the SMHA to activities that will ensure the greatest effect.

Epidemiology

People with serious mental illness (SMI)[1] are unquestionably at elevated risk for suicidal behavior. This vulnerable group constitutes 6-8% of the US population (Kessler et al.,

[1] Serious mental illness (SMI) is defined as having a diagnosable mental, behavioral, or emotional disorder that met criteria in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM–IV) and that resulted in functional impairment that substantially interfered with or limited one or more major life activities.

2001; Epstein, 2004).[2] They, along with others who have less severe types of mental illness, account for the overwhelming majority, 85-90%, of the 31,000[3] adults who die each year by suicide (CDC, 2007; Goldsmith et al., 2002). People with SMI have a lifetime suicide rate of 4-8% compared with 1% in the general population.[4] Inadequate assessment of suicidal risk and inadequate treatment are major contributors to this serious public health problem (Goldsmith et al., 2002) which costs $1.9 billion for inpatient hospitalization alone (SPRC, 2007) and $25 billion each year in direct and indirect costs (e.g., lost productivity)(Goldsmith et al, 2002).

Suicide attempts are more frequent than suicide completions: for every suicide death, 8-25 attempts occur (Moscicki et al., 2001). Whereas men are four times more likely to die by suicide, women are much more likely to attempt suicide (Goldsmith et al., 2002). The group at greatest risk for suicide attempts is female youths (ages 15-24). For completions, the greatest risk is among elderly males; their rate is three times that of the general population (CDC, 2007).

Suicide is the nation's leading cause of violent death, according to the most recent findings of the National Violent Death Reporting System, a relatively new and comprehensive system established by the Centers for Disease Control and Prevention. The rate of suicide is nearly double the rate of homicide, which is the second leading cause of violent death (www.cdc.gov/ncipc/profiles/nvdrs/default.htm). Firearms are the most common method of suicide, occurring in about 50% (Miller et al., 2006; CDC, 2007).

Still, the majority of people with SMI neither attempt nor die by suicide. Why do some engage in suicidal behavior, while others do not? This section strives to answer this question by drawing on epidemiological research about suicide risk factors.

Predicting Suicide

Multiple risk factors—acting together, rather than any single risk factor acting alone, and buffered by certain protective factors—greatly influence the extent to which suicide attempts and completions occur. A highly common risk factor combination is a mood disorder co-occurring with a substance use disorder. The two create, in many cases, the necessary but insufficient combination of causes. What may induce someone to suicidal behavior, then, is a host of additional risk factors or triggers, such as a major stressful event, binge use of substances, certain personality features (e.g., impulsivity), or a recent discharge from a hospital (Pirkis & Burgess, 1998; Mann et al., 1999; Beautrais, 2002; Sokero et al., 2003; Dumais et al., 2005). Some of the triggering factors may be generic to anyone with a psychiatric disorder, while others may be fairly unique to specific disorders. The complex set of risk factors can interact and reinforce each other. Despite awareness of comorbidity and multiplicity of risk factors, there remains no foolproof combination of risk factors that can precisely predict if, and when, suicidal behavior will

[2] The 6% figure from Kessler et al., 2001 covers ages 15-54, while the 8% figure from Epstein et al., 2004 cover ages 18 and older.
[3] An additional 1,500 suicides each year are by children and youth under 18.
[4] Adapted from Harris & Barraclough, 1997 and Bostwick and Pankratz, 2000.

occur (Goldsmith et al., 2002). Risk assessment should lie in the hands of experienced clinicians making judgments that consider all risk factors, along with patient history and behavioral changes (Goodwin & Jamison, 2007)

Absent a foolproof formula for identifying those at most risk, epidemiological research can help target state resources to subgroups at greatest risk. For that purpose, this section deals with general risk factors across all psychiatric disorders and risk factors associated with specific disorders. Risk factors associated with the Nation's fragmented service delivery systems are discussed later.

Risk Factors for Suicidal Behaviors

Epidemiological research has revealed a number of generic risk factors that apply across many psychiatric disorders, rather than any single one (Harris & Barraclough, 1997; Goldsmith et al., 2002; Conwell et al., 2002; Miller et al., 2006; Spirito & Esposito, 2006; National Violent Death Reporting System (www.cdc.gov/ncipc/profiles/nvdrs/default.htm), Borges et al., 2008). The most common risk factors include:

- prior suicide attempt;
- intimate partner conflict;
- social isolation;
- family history of suicide, mental disorder or substance abuse;
- family violence, including physical or sexual abuse;
- firearms in the home;
- legal charges or financial problems;
- incarceration;
- exposure to the suicidal behavior of others, such as family members, peers, or media figures; and
- physical illness and functional impairment, especially in older people.

Additionally, several mental illness-related symptoms act as short-term (or acute) risk factors. A large longitudinal study (Fawcett et al., 1990) and other studies (e.g., Hall et al., 1999) identified the following short-term risk factors:

- severe hopelessness;
- impulsivity;
- unrest, instability;
- agitation, panic, anxiety;
- relational conflict;
- aggression, violence;
- alcohol/substance abuse; and
- insomnia.

Other SMI-related, chronic risk factors include ongoing psychiatric symptoms, lower thresholds of activation for becoming suicidal, lack of cognitive or coping skills, and enduring maladaptive personality traits in Axis II disorders (Rudd, 2006). Considering that SMI itself is a chronic (long-term) risk factor, it is often difficult for the clinician to

sort out the period of greatest risk. Short-term risk factors mark periods of especially heightened risk in people with SMI.

Risk Factors By Disorder

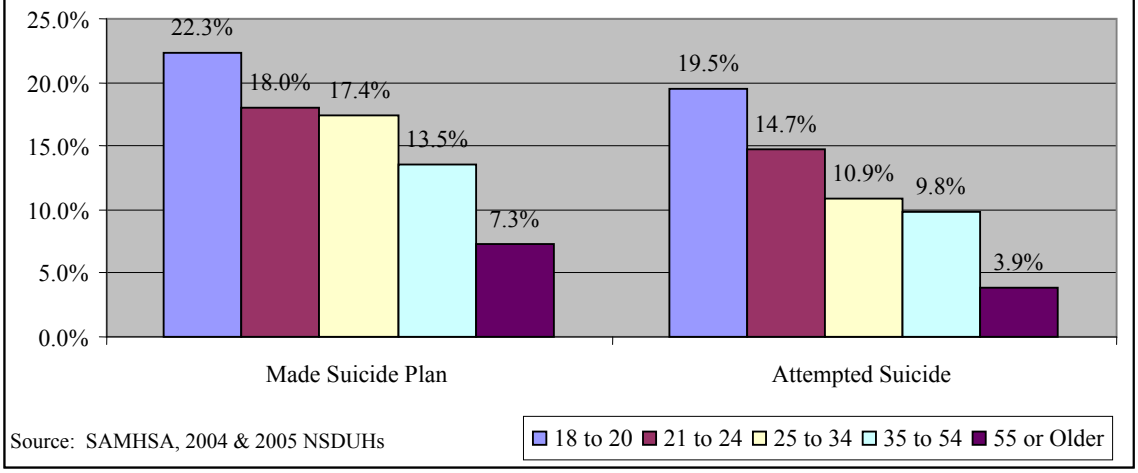
Some risk factors for suicide are associated with specific disorders. These factors do not act in a vacuum; they complement those previously identified. Whether the risks are independent, additive, or synergistic is unknown. It is worth reiterating that suicide occurs in the presence of a multiplicity of short- and long-term risk factors. The process of assessing suicidal risk often begins with the recognition and treatment of the underlying SMI and/or a substance use disorder. But here, too, the system often breaks down; nationally representative studies have established that less than 40% of people who have a psychiatric diagnosis receive adequate treatment for their mental illness (Kessler et al., 2001; Wang et al., 2005).

Mood Disorders

Across all psychiatric disorders, mood disorders, which include major depressive disorder and bipolar disorder, appear to carry the highest risk of suicide and suicide attempts (Goodwin & Jamison, 2007; Kessler et al., 1999). For decades, the prevailing estimates of lifetime suicidal risk for mood disorders ran as high as 14-15% (Guze & Robins, 1970), but a more recent meta-analysis of methodologically stronger studies has lowered risk estimates. For patients ever hospitalized for a mood disorder the lifetime risk is 4.0%, but for those ever hospitalized for suicidality, the lifetime risk is more than twice that, 8.6%. For mixed inpatient/outpatient populations, never hospitalized for suicidality, the risk is 2% (Bostwick & Pankratz, 2000). Stratifying by mood disorder, past studies have suggested that suicide risk is higher in major depression than bipolar disorder. But the comparative risks are uncertain because of the methodological difficulty of distinguishing certain forms of depression from bipolar (e.g., mixed states) (Goodwin & Jamison, 2007).

Suicide attempts in adults with a major depressive episode are startlingly common, with 10.4%, or 1.7 million people, in the National Survey on Drug Use and Health, reporting a suicide attempt during the worst or most recent episode of depression (OAS, 2006). The younger age groups are even more likely to make an attempt (Figure 1). The survey also found that suicide attempts are far more likely in depressed adults who report binge alcohol or illicit drug use than by their counterparts who do not abuse substances. Suicide attempts were responsible for nearly 38,000 emergency room visits in 2004 by depressed adults using or abusing drugs (OAS, 2006). Later-life is a period of particular vulnerability in relation to mood disorders. A startling 74% of all attempts or completions among people older than age 55 were attributable to mood disorders (Beautrais, 2002).

Figure 1: Percentages Reporting Suicide Plan and Attempts Among Adults Age 18 or Older with a Past Year Major Depressive Episode, by Age Group: 2004 and 2005 NSDUHs



Source: SAMHSA, 2004 & 2005 NSDUHs

Suicide is far more likely to occur early, as opposed to later, in the course of affective disorder (Inskip et al., 1998), a finding similar to that in schizophrenia (Inskip et al., 1998; Palmer et al., 2005). Unlike the general population, women with bipolar illness die by suicide at nearly the same rate as men (Weeke, 1979). Finally, the risk of suicide is higher for depressed individuals who feel hopelessness about the future, have just been discharged from a hospital, have a family history of suicide, or who have made a suicide attempt in the past. (Beautrais, 2003)

Schizophrenia

Suicide is the leading cause of early mortality in people with schizophrenia. Their lifetime risk of suicide is nearly 6%, according to a recent meta-analysis (Palmer et al., 2005). The meta-analysis also found that the first ten years after diagnosis is a period of higher risk, suggesting that suicide prevention efforts should be focused on newly diagnosed people. A systematic analysis of the full spectrum of suicide risk factors for people with schizophrenia found elevated risk was related less to the core psychotic symptoms of the disorder and more to the following (Hawton et al., 2005):

- affective symptoms (worthlessness, hopelessness, agitation or motor restlessness);
- awareness that the illness is affecting mental functioning;
- living alone or not living with family;
- recent loss events;
- previous suicide attempts;
- previous depressive disorders;
- drug misuse;
- fear of mental disintegration; and
- poor adherence to treatment.

Anxiety Disorders

Anxiety disorders include simple phobia, social phobia, obsessive compulsive disorder, post-traumatic stress disorder (PTSD), and panic attacks. In the past, the risk of suicidal behavior from anxiety disorders was not seen as serious enough to warrant national attention. More recently, however, studies sought to determine whether these disorders carry their own independent risks of suicide. This is an important question since anxiety disorders are the most common disorders in the US population (DHHS, 1999). A new and representative study of nearly 2,000 people has found that any type of anxiety disorder is indeed an independent risk factor for suicide attempts (Bolton et al., 2007). This means that they need not be comorbid with other disorders to be a suicidal risk. The onset of an anxiety disorder of any kind doubles the risk of suicide attempts.

Some anxiety disorders, for example, simple phobia, are unlikely to meet the Federal definition of an SMI. But others, such as PTSD, frequently meet the criteria, yet research often aggregates them under the mantle of "anxiety disorders." That categorization tends to diminish the perception of their severity and the associated suicidal risk. The two anxiety disorders most frequently associated with suicide completion are panic disorder and PTSD (Goldsmith et al., 2002).

Alcohol Intoxication, Alcohol Dependence and Substance Use Disorders

Alcohol intoxication, by itself, does not constitute a psychiatric disorder, much less an SMI, but its role in suicidal behavior is profound. Acting as a disinhibitor, alcohol is involved in up to 64% of suicide attempts or completions, many of them associated with the combination of impulsivity, anger, and relationship losses (Goldsmith et al., 2002). The findings from several autopsy studies reveal that 25% of all individuals who die by suicide are intoxicated at the time of death (Goldsmith et al., 2002). Alcohol dependence confers a 7% lifetime risk of suicide (Inskip et al., 1998), 60-120 times that of the non-psychiatrically ill population (Sher, 2006). Alcoholism is associated with higher rates of suicide attempts, as well. One urban study showed those with alcoholism had five times the number of attempts as those with other psychiatric diagnoses (Weissman et al., 1980). In men, all substance use disorders combined increase the risk of a serious suicide attempt more than six times (Molnar et al., 2001).

Comorbidity appears to play an important role in suicidal behaviors. Four million Americans have a substance use disorder (illicit substances) plus an SMI (Epstein, 2004). This figure accounts for nearly 23% of the estimated 17.5 million individuals with an SMI. The National Comorbidity Survey (NCS) found significantly increased lifetime odds of alcohol dependence for both men (2.95) and women (4.05) with major depression (Kessler et al. , 1997) and, conversely, a two-fold increase in the lifetime odds of depression among subjects with alcohol dependence (Kessler, 1996). Major depressive episodes and stressful life events are conceptualized as precipitating factors for suicide in those with alcohol dependence. (Sher, 2006). In fact, studies show that major depression existed at the time of death in 45 to >70% of suicides involving a history of alcoholism (Sher, 2005). In recognition of the strong mediating role of alcohol in suicidal behaviors, suicide assessments are essential at the end of a binge or the early stage of withdrawal

Sher, 2005). Abuse of illicit substances is likewise strongly associated with suicidal behaviors and calls for suicide risk assessments (Goldsmith et al., 2002).

Attempt Survivor and Suicide Survivor Perspectives

SMHAs must consider the personal insights of people with SMI who survived their own suicide attempts and suicide survivors—family and friends of loved ones who died by suicide—if they are to assure prevention and treatment services are truly person-centered. Representatives of these two important populations presented their insights to the workgroup amid thoughtful discussion. In as much as this process did not represent a scientific sampling of opinions from members of these groups, the themes are commonly heard in discussion of these types and seem to represent at a minimum the viewpoints of large proportions of these stakeholder groups.

The pertinent insights from the discussions are organized and presented below with the goal of accurately representing the perspectives of those who shared them. The ideas have not been reviewed or evaluated to determine the degree to which they may be congruent with relevant scientific research, but rather, they stand on the weight they carry in the broader suicide prevention discussion because of the position held by those who contributed them. They *are* the persons around whom our work is centered.

Attempt Survivors

According to people with SMI who have attempted suicide, suicide prevention hinges on more intensive and extensive treatment, follow-up, and tracking of all previous attempters, rather than solely focusing on those clinically deemed to be at risk of further suicidal behavior. They and their networks of family and friends advocate for humane measures, sometimes referred to as person-centered. Implementing suicide prevention programs that are truly person-centered would mean:

- Training law enforcement officers who act as first responders to be empathic, not punitive toward those exhibiting suicidal behaviors;
- Understanding that a hospitalization following a suicide attempt is traumatic for the individual and family members;
- Reducing the stigma, shame and humiliation associated with an attempt, mental illness and diagnosis;
- Recognizing and addressing the potential affects of long-term disability that may result from an attempt;
- Nurturing spirituality;
- Seeking methods to understand and improve the attempter's situation;
- Ensuring all treatment services in acute care/hospital settings are meaningful and respectful;
- Fostering opportunities to help others create and maintain meaningful connections with those who have attempted suicide;

- Developing support groups with peers and natural helpers; and
- Emphasizing the importance of extensive, supportive follow-up that focuses on self-empowerment and resiliency as pathways to recovery.

Many attempters experience personal benefits from sharing their own experiences, struggles and recovery stories with others who are having suicidal thoughts. Since many people think about suicide daily and find relief in talking about those thoughts, attempters recommend reducing the stigma associated with talking about suicide. The opportunity to speak more freely about the subject will help others understand the degree to which individuals with SMI and suicide survivors experience:

- Isolation;
- Burdensomeness to others;
- Futility and hopelessness;
- Suicidal obsession;
- Threshold behaviors such as self-injury, passive attempts, or reckless and risky behaviors;
- Euphoria associated with self-injury; and
- Feelings of empowerment and control through holding suicide as an option.

After hospitalization for an attempt, patients identify the following as life-changing losses:

- Functional status due to a short or long-term disability;
- Employment;
- Housing;
- Finances; and
- Social supports, such as family and friends.

These losses significantly impede the struggle by attempters to recover a sense of hope, personal strength, and dignity after an attempt.

Suicide Survivors

Survivors—family members and friends of a loved one who died by suicide—are estimated to number six per each suicide (AAS, 2007), though some consider this a conservative estimate. Based on the 754,570 suicides from 1980 through 2004, there are at least 4.6 million survivors in the U.S. or 1 out of every 65 Americans (AAS, 2007). Six new survivors are added to the cohort every 16.2 minutes. For survivors experiencing complicated grief associated with the death of a loved one by suicide the risk for suicidal ideation or attempts is elevated. Furthermore, stigmatizing reactions add to a survivor's burdens, often intensifying their social isolation and secrecy while impeding their access to accurate information that could help them recover, or in some cases, become involved as advocates for suicide prevention.

Suicide survivors frequently report unique problems and challenges following the death of their loved one. These include:

- A prolonged and intense search for the reason for the suicide;
- Feelings of being rejected by the deceased;

- A distorted sense of responsibility for the death and the ability to have prevented the suicide;
- Feelings of being blamed, by others or themselves, for causing the problems that led to the suicide; and
- Elevated levels of anger, family dysfunction, and feelings of social stigmatization.

Furthermore, survivors of a suicide have a high likelihood of not seeking out formal or informal support or mental health treatment. Those that seek these forms of help may be thwarted by difficulty locating resources or by their own overwhelming grief. Large numbers of adult survivors find that they improve their ability to cope with the many and complex facets of being a suicide survivor by participating in formal support groups with others who have experienced loss through suicide.

Children who survive the suicide of a parent or guardian frequently struggle with guilt and feelings of abandonment. Adults who were traumatized as children by the suicidal behaviors of caretakers observe that using secrecy to protect the child-survivor may cause additional complications and misperceptions. Children need to know that the death was not their fault and that their continued care is certain. Honest, age-appropriate communication with the child is critical.

Preventing Suicide

"Worldwide, there has been a call to reduce the substantial mortality and morbidity burden associated with suicide and suicidal behavior through sweeping, national strategies. This development comes within an environment where there have been meager public health attempts to reduce these burdens, even while the limitations of high-risk approaches have been noted for some time. Suicide prevention has narrowly focused on identifying proximate, individual-level risk factors, rather than thinking about population mental health in terms of complex social and ecological relations" (Knox, 2004).

This call, beginning with guidelines issued by the World Health Organization (UN, 1996), has invigorated suicide prevention efforts around the world. These efforts generally focus on identifying and mitigating risk factors as well as adopting strategies to reduce the stigma associated with having a mental illness and receiving mental health and suicide prevention services. To these themes are commonly added public awareness campaigns seeking to increase knowledge and understanding of suicide and its associated risk and protective factors. Some initiatives improve the delivery of health care to individuals who have attempted or are at risk for attempting suicide and, for others, building protective factors in individuals, families, and populations becomes a focus. Finally, most comprehensive suicide prevention approaches seek to enhance data collection systems to support improved surveillance of suicidal behaviors and risk factors, program evaluation, and research.

The National Response

In 1999, the U.S. Surgeon General called the "nation to address suicide as a significant public health problem and put into place national strategies to prevent the loss of life and

suffering suicide causes" (U.S. Public Health Service, 1999). Twenty-two months later, the Surgeon General introduced a blueprint for addressing suicide in the United States. This blueprint, "The National Strategy for Suicide Prevention," must be considered a critical component of any strategic initiative to improve mental health across the nation.

"The 'National Strategy' was designed to be a catalyst for social change intended to transform attitudes, policies, and services" (DHHS, 2001). It also strives to promote and guide efforts to modify the social infrastructure in ways that will affect the most basic attitudes about suicide and its prevention, while at the same time, changing judicial, educational, and health care systems. This strategy lists the following goals as a framework for action:

- Goal 1: Promote awareness that suicide is a public health problem that is preventable;
- Goal 2: Develop broad-based support for suicide prevention;
- Goal 3: Develop and implement strategies to reduce the stigma associated with being a consumer of mental health, substance abuse, and suicide prevention services;
- Goal 4: Develop and implement suicide prevention programs;
- Goal 5: Promote efforts to reduce access to lethal means and methods of self-harm;
- Goal 6: Implement training for recognition of at-risk behavior and delivery of effective treatment;
- Goal 7: Develop and promote effective clinical and professional practices;
- Goal 8: Improve access to and community linkages with mental health and substance abuse services;
- Goal 9: Improve reporting and portrayals of suicidal behavior, mental illness, and substance abuse in the entertainment and news media;
- Goal 10: Promote and support research on suicide and suicide prevention; and
- Goal 11: Improve and expand surveillance systems.

Aligning with these goals, NASMHPD's tenth technical report entitled, "Prevention Approaches for State Mental Health Authorities" recommended that all SMHAs actively support early intervention activities for people at risk for psychosis as a means of preventing suicide (Medical Directors Council, 2004). NASMHPD has also adopted a position statement on the integration of health promotion and prevention strategies that targets reducing the incidence of mental illness and suicide.

This fourteenth technical report is intended to catalyze involvement by the SMHA to more effectively prevent suicide. In doing so, it highlights public policy issues concerning systems of care, inter-agency collaboration and requirements for new levels of data gathering and sharing. Questions that should be considered include:

- How can the medical-legal risk of caring for patients at heightened risk for suicide be equitably shared across various care providers?
- What criteria can be used to select the most appropriate level of care for at-risk patients?
- What defines adequate monitoring of patients on suicide watch?

- What standards should be met before discontinuing suicide watch?
- What level of evaluation should occur on the day of discharge from an inpatient psychiatric unit?
- What incentives would accelerate implementing suicide prevention policies and procedures?
- What education about suicide prevention do policy makers need?
- Under what circumstances or at what developmental stages should screening for suicide risk be implemented?
- How can states ensure the same terms and definitions regarding suicidal behaviors are used across various domains in order to improve collaboration and reduce errors?
- What, if any, are acceptable rates of morbidity and mortality from suicidal behaviors?

Many of these questions can be best addressed within the context of inter-disciplinary, cross-functional task forces.

Suicide Prevention Task Forces

Suicide prevention task forces consolidate critical leadership and political will to bring about effective suicide prevention for a population. Collaborative task forces have proven to be the surest approach to seamlessly integrating social and health services, improving education and training, and producing consistent and effective policies. They can also foster changes in the social values and norms that so powerfully influence complex behaviors, such as suicide.

Perhaps the best known example of successful suicide prevention is that of the United States Air Force. Responding to significant increases in suicide among airmen in the early 1990's, the Air Force's top brass formed a suicide prevention task force made up of 75 key stakeholders from bases around the world.

The task force started with a community-oriented, population-based framework from which it developed a comprehensive list of initiatives. These initiatives included:

1. Messages by senior leaders to change cultural norms and values;
2. Broad-based education and training across community members and professional groups;
3. Promotion of mental health services;
4. Integrated delivery of community preventive services;
5. Critical incident stress management teams; and
6. Improved surveillance of suicide attempts and completions.

The individual interventions took into account characteristics of the population at risk and the cultural context of the "Air Force community." They relied most heavily on early interventions for distressed individuals with the goal of preventing suicidal crises altogether. Developing a new, deeply-held and widely-shared cultural value that preventing suicide was among the Air Force's top institutional priorities served as the foundation for the entire effort. Suicide should no longer be considered an acceptable option.

Over the first five years of the program, the suicide rate in the Air Force fell significantly by a third. Fewer suicides were not the only accomplishment of the Air Force's program, however. Since suicide shares risk and protective factors with many other high-risk and violent behaviors, it was not unexpected that the Air Force measured significant reductions in other areas of violence and injury:

- 30% fewer incidents of moderate family violence;
- 54% fewer incidents of severe family violence;
- 51% fewer homicides; and
- 18% fewer accidental deaths.

These results could not have been achieved without the "ongoing commitment from Leadership." (Knox et al., 2003) (See Box 1, below.)

While the Air Force's target population is very different than the population on which this paper focuses, this example highlights the critical role task forces can play in preventing suicide. In much the same way, states across the nation are forming cross-functional task forces that assess the characteristics of particular populations at risk for suicide and develop comprehensive, multi-layered approaches to prevention.

Box 1. Air Force Leaders' Messages of Cultural Change

"Suicide. . .causes the loss of our most valuable resource, trained professionals. It is the second leading cause of death among active duty members. As leaders, we must take action to turn the tide on the needless tragedy of suicide."

-- **Ronald R. Fogleman**, Air Force Chief of Staff, 3 Sep 96.

"I want the Air Force to be a responsive, caring, and responsible community where individuals are motivated to seek help with personal struggles and can do so without fear of stigmatization. All of us in the Air Force community must pay attention to the warning signs and open the doors for those who need help."

-- **Ronald R. Fogleman**, Air Force Chief of Staff, 15 Oct 96.

"Communicate in your words and actions that it is not only acceptable, but a sign of strength, to recognize life problems and get professional help to deal with them constructively."

-- Michael E. Ryan, Air Force Chief of Staff, 12 Aug 99

Service Delivery Systems

Care delivery for people with SMI occurs in a broad range of settings and is the complex product of the decades-long trend in deinstitutionalization from State hospitals, fluctuating sources of State versus Federal funding, and the rise of managed care (Frank & Glied, 2006). Many newer settings for care, such as jails and prisons, lie outside of the traditional sites of service delivery controlled by State program administrators and over which they exert little, if any influence (New Freedom Commission on Mental Health,

2003). The spotlight also has been cast on less intensive settings, such as in primary care and various types of community-based care.

The period during or soon after contact with many types of health providers is a time of heightened risk for suicidal behavior. Failure to assess risk for suicide, track patients over time, and ensure effective treatment comprises a major part of the problem. Contacts with the health care system, in other words, represent critical missed opportunities to prevent suicide. The service delivery systems discussed below represent significant opportunities for preventing suicide among people with SMI.

The National Suicide Prevention Lifeline (1-800-273-TALK)

The National Suicide Prevention Lifeline (NSPL) is a network of independent, certified telephone crisis services located across the United States linked by one or more national, toll-free numbers. Persons in emotional distress or suicidal crisis can access the Lifeline network 24/7 from any location. The services are free and confidential. Funding to link the crisis centers into the national network is provided by the Substance Abuse and Mental Health Services Administration (SAMHSA); the crisis centers themselves are independently funded.

Callers to the Lifeline are generally seeking help for themselves or someone they care about. Calls made to the primary NSPL number, 1-800-273-TALK, are routed to the nearest of more than 125 networked crisis centers, based on the area code of the incoming call. Back-up centers absorb the overflow in cases when calls cannot be taken at the nearest crisis center due to volume or other constraints. Upon answering the call, the crisis worker will generally (Mishara et al., 2007):

- Establish rapport with the caller;
- Explore the problem with the caller, including assessing suicide risk;
- Explore affect, including reducing anxiety and other affects that attenuate problem solving;
- Explore caller's coping repertoire; and
- Develop alternatives for addressing the problem, including making referrals to locally available services or initiating a local emergency rescue.

Recently, two large SAMHSA-funded studies found that telephone crisis services, like those in the Lifeline network, can provide both an effective mental health and suicide prevention service for callers. A study of 1,085 suicidal and 1,617 non-suicidal crisis callers to 8 crisis lines found that callers showed significant reductions on all measures of emotional distress, hopelessness and suicidality by the end of the call, as well as at follow-up 2 to 3 weeks later. During the follow-up interview researchers asked callers in an open-ended question what was helpful about the call; 11.6% of the suicidal callers spontaneously reported that the call prevented them from killing or harming themselves (Kalafat et al., 2007; Gould et al., 2007). Another study silently monitored 1,421 calls at 14 centers. Looking at the caller's change from the beginning to the end of the call, 52.3% of callers were less confused and more decided about next steps; 48.7% were less helpless and more resourceful; and 40% were more hopeful (Mishara et al., 2007). These studies showed empirically that seriously suicidal callers are reaching out to telephone

crisis services and that the service is clinically effective in decreasing suicidality as measured by intent to die, hopelessness and psychological pain.

The studies also found opportunities to improve the quality of telephone crisis services, in that:

- Some crisis workers don't consistently complete suicide risk assessments and sometimes miss identifying suicidal callers; and
- Telephone crisis centers vary greatly in nature, function, and quality of assistance.

The NSPL responded immediately. Even before the study was published, the NSPL convened the nation's leading experts, including those involved in the studies, to establish the first evidence-informed national suicide risk assessment standards for telephone crisis centers. The standards were released to the network in December 2006 and were adopted across the entire NSPL network by September 2007. They are currently undergoing rigorous evaluation (Joiner et al., 2007).

The chief benefits of many telephone crisis centers and the Lifeline's suicide prevention service are:

- Free around-the-clock access to a trained counselor or crisis worker from any location;
- Anonymity, reducing the barrier of stigma;
- Easy linkage to the full array of local services for emotionally distressed callers either *before* a suicidal crisis occurs or *during* a suicidal crisis;
- Access to emergency services for individuals who may not dial 911 themselves;
- Education and training services provided by the crisis center to other local service providers and agencies; and an
- Opportunity to reduce the numbers of at-risk patients seeking care in hospital emergency departments.

Emergency Departments

Emergency departments (EDs) are frequently utilized as a first response intervention and treatment site by individuals who have attempted suicide. Altogether, there were nearly one billion ED visits during the 10 years from 1992 to 2001. The annual tally of ED visits increased 20% over the course of the decade, while the number of operating emergency departments droppped 15%. Fifty-three million (5.3%) of the visits were mental-health related, a proportion that rose 28% (from 4.9 to 6.3%) across the decade. Seven percent of the 53 million visits (3.7 million) were associated with a suicide or a suicide attempt. (Larkin et al., 2005)

Emergency departments (ED) have become the de facto mental health care delivery system for a large proportion of people with SMI. Of the estimated 300,000 ED visits made annually for self-harm by adults (ages 19 and up) (www.cdc.gov/ncipc/wisqars), the vast majority are presumably by people suffering from mental illnesses, many of those severe. Data from the South Carolina Violent Death Reporting System show that nearly half of suicide deaths in South Carolina (2003-2004) were linked to an emergency department visit. In this database, 218 of the State's total of 491 suicide deaths in 2004

were seen sometime in 2003 or 2004 in emergency departments prior to their death. Although nearly one sixth died in the ED from the index attempt, the others died by suicide across the following days and months; 128 (58.7%) died more than two months later (Weis et al., 2006; C. Bradberry, personal communication, December 19, 2007). Brief, intensive interventions for at-risk patients while in the ED and improved follow-on care could significantly reduce the toll of suicide on those suffering with SMI.

The emergency department is also a key site of care delivery for adolescents at heightened risk for suicide. Adolescents, as noted earlier, are at even higher risk for suicidal behaviors than are adults. For many who have SMI, the emergency room is their first point of contact with the health care system. Because adolescence is the time of onset for many SMIs, contact with the health-care system through the emergency room may define for years to come their attitudes toward seeking care. Improper or insensitive treatment in an emergency department at this vulnerable time may not only elevate suicide risk, but also may delay or deter them from obtaining diagnosis or treatment of their underlying SMI.

A convenience survey conducted by the National Alliance on Mental Illness (NAMI) asked 465 people with mental illness (patients) and 254 family members about their experiences in an emergency department following a suicide attempt (Cerel et al., 2006). It found that:

- Almost half of patients were accompanied by a family member to the emergency department following their suicide attempt;
- More than half of patients and almost a third of family members felt directly punished or stigmatized by staff;
- Fewer then 40% of patients felt that staff listened to them, described the nature of treatments to them, or took their injury seriously, although family members were more likely than patients to feel heard or to receive information about treatment; and
- Negative experiences involving a perception of unprofessional staff behavior, feeling the suicide attempt was not taken seriously and long wait times were reported by both patients and family members.

The effects of these experiences on treatment adherence and subsequent self-injurious behavior are largely unexplored in the literature. However, one alarming study found that up to half of adolescents receive no formal treatment after their emergency department visit for suicidal behavior (Spirito et al., 1989). It is thus well accepted that inadequate, inappropriate, or ineffective treatments in the emergency department may represent a risk factor for suicidal behavior among adolescents, many of whom have SMI.

Inpatient Care

A startling 41% of suicides among those who received inpatient psychiatric care occur within one year of their discharge; 9% occur within one day. This is according to a review of more than 20 studies (see Table 1. below) (Pirkis & Burgess, 1998).

A more extensive study from Denmark, based on longitudinal registers, reaffirms the problem of suicide risk following psychiatric hospitalization (Qin and Nordentoft, 2005). Among nearly 21,000 hospitalized Danes, the study found that suicidal risk is especially high for patients with mood disorders and short stays. In support of previous studies, the Danish study also found that the first week after discharge (and the first week after admission) carries the highest risks of suicide. Multiple admissions further increased the risk for women, but not for men. Another study systematically reviewed 90 published reports to find that approximately 16% of those served in hospital settings exhibit a repeat suicide attempt within one year of the index attempt; by 1 to 4 years 21% have reattempted; and by some period greater than 4 years, 23% reattempt. Ten years or more after an index attempt, more than 7% had died by suicide. Those who have been treated in hospitals for a suicide attempt have a risk for suicide that is "hundreds of times higher" than the general population. (Owens et al., 2002).

Table 1: Suicidal Deaths after Contact with Health Care

Location	Within 1 Year	Within 1 Day of Discharge
Psychiatric Inpatient Care	41%	9%
Community-Based Mental Health Care	11%	4%
Primary Care Provider	83%	20%

(Pirkis & Burgess, 1998).

In the hospital setting itself, suicide was found to have been the most frequent type of sentinel event reported to the Joint Commission on Accreditation of Healthcare Organizations (Joint Commission, 2007). Typically, suicide was associated with deficiencies in the physical environment or from inadequate assessment of suicidal risk. The creation of a sentinel event surveillance system, from which this finding was uncovered, was in response to revelations about the high number of US hospital errors and other threats to safety.

Outpatient Mental Health Treatment

Many of the same problems noted above also plague outpatient mental health care: chiefly, failure to conduct suicide assessments and to provide evidence-based treatment of suicidal behavior (Goldsmith et al., 2002) (See Table 1., Pirkis & Burgess, 1998). The problems are exacerbated by private and public financing systems that discriminate against the provision of mental health care.

A further problem is the fear of liability, especially with regard to prescription of some antidepressants, namely selective serotonin re-uptake inhibitors or SSRIs. In 2004, the FDA, relying on epidemiological and anecdotal evidence, issued a black box warning to physicians advising them of the potentially higher risk of suicide soon after initiation of SSRIs. The first FDA warnings were directed to treatment of adolescents. Those organizations that advocated against the warning argued that suicide was a function of

depression itself, rather than a consequence of SSRI treatment. According to the FDA, all patients being treated with antidepressants for any indication should be monitored appropriately and observed closely for clinical worsening, suicidality, and unusual changes in behavior, especially during the initial few months of a course of drug therapy, or at times of dose changes, either increases or decreases. After the warning, prescriptions for SSRIs fell off significantly (Gibbons, et al., 2007), despite the wide agreement that the benefits of appropriate administration of SSRIs far outweigh the risk of possibly developing suicidal ideations or behaviors as a result of using these medications.

Although research findings are equivocal as to whether antidepressants can reduce suicidal behaviors on their own, there are a number of mental health treatments suitable for delivery in outpatient settings that have been shown to prevent suicides or attempts. Randomized controlled trials have demonstrated that cognitive behavioral therapy (Brown, et al., 2005), Dialectical Behavior Therapy (Linehan et al., 1991), brief in-home psychodynamic interpersonal therapy (Guthrie et al., 2001), and two psychopharmaceutical agents [clozapine (Meltzer, 1999; Meltzer et al., 2001) and lithium (Baldessarini, et al., 1999)] reduce suicide attempts and/or completions when used for certain diagnoses. Recognizing that effective prevention of suicidal behaviors "might require substantially more intensive treatment than is currently provided to the majority of people in outpatient treatment for mental disorders," (Kessler, et al., 2005) wider dissemination of these and the development of additional evidence-based treatments must become a top priority.

Primary Care

SMHAs are stewards of publicly funded inpatient care and community mental health care. Yet some suicidal patients only make contact with primary care providers who are often outside the purview of state mental health program directors. Primary care has witnessed enormous growth as a setting for mental health care. This transformation was galvanized by the policies of deinstitutionalization, growth of managed care, changes in mental health financing, and availability of safer medications (DHHS, 1999; Frank and Glied, 2006).

The transformation to primary care, while beneficial in many respects, has had untoward effects on people with SMI who are at high risk for suicide. Primary care physicians, according to multiple studies, are ill-equipped to deal with patients at risk for suicide (Goldsmith et al., 2002). Patients slip through the cracks when they fail to disclose their suicidal intent and doctors fail to ask. One study found that 16-20% of people who died by suicide had seen their primary care provider the week before, and 34-38% within one month of suicide (Pirkis & Burgess, 1998). Another study found that, across all ages, 45% of suicides occurred within one month of a primary care visit, but the rate was 58% among patients older than 55 years of age (Luoma et al., 2002). The failure of communication between patient and primary care provider was recognized as early as 1975 as an "error of omission." (Murphy, 1975). Although there is not sufficient evidence to recommend screening in primary care for the general population (US

Preventive Services Task Force, 2004), selective screening for suicide risk *is* warranted for patients if they have already screened positive for depression or substance abuse.

Alternative Prevention Approaches

Surprisingly simple and inexpensive interventions, such as periodic telephone calls or post-card contacts after discharge from care have demonstrated reductions in suicidal behaviors. A randomized controlled study of 605 adults age 18 to 65 discharged from 13 emergency departments following a suicide attempt by drug overdose/poisoning, showed that those contacted by telephone one month after being discharged were 45% less likely to repeat a suicide attempt during the year following the index attempt than those who did not receive the telephone contact (Vaiva et al., 2007). In another study, researchers sent post cards to a group of 394 individuals randomized to the intervention group at intervals of 1, 2, 3, 4, 6, 8, 10, and 12 months after a suicide attempt. The postcard simply read, "It has been a short time since you were here at _____, and we hope things are going well for you. If you wish to drop us a note we would be happy to hear from you. Best wishes, _____." When compared to controls, those receiving the post cards showed a significant 45% reduction in repeated episodes of deliberate self-poisonings, though this effect was only observed for women in the study (Carter, et al., 2005.) The potential success of these prevention strategies would require the patient provide consent to being contacted. Nevertheless, preliminary data indicates simple intervention strategies such as these contribute measurably to deterring future suicidal behavior.

Risk Management

Risk management is an umbrella term covering actions largely intended to reduce or eliminate risk. It can also refer to actions that prop up or enhance characteristics known to protect against risk, i.e., protective factors. Traditionally, risk management focuses on reducing the likelihood of harm to individuals in healthcare settings, protecting the provider from fiscal liability. (Lawlor, 2002). Within the public sector, risk management also includes a dimension of accountability whereby you may be held responsible for any issue that arises related to mental health in your state – whether you were involved or not (Lawlor, 2002).

There are three major categories of risk factors[5] for suicide: (1) risk factors shaped by personality and family history—the so-called biopsychosocial risk factors; (2) risk factors dealing with familial, cultural and social environment—sociocultural risk factors; and (3) environmental risk factors. (Risk and protective factors are listed in Attachment C.) The SMHA and other state policy makers must ensure policies exist to support risk management strategies addressing appropriate factors on each list within each major service delivery system. Some of the issues that should be addressed in setting-specific policies are listed in Attachment C.

Environmental Risk Factor Management

The SMHA may also be instrumental in mitigating certain environmental risk factors for suicide. For instance, occasionally clusters of suicides occur among certain communities

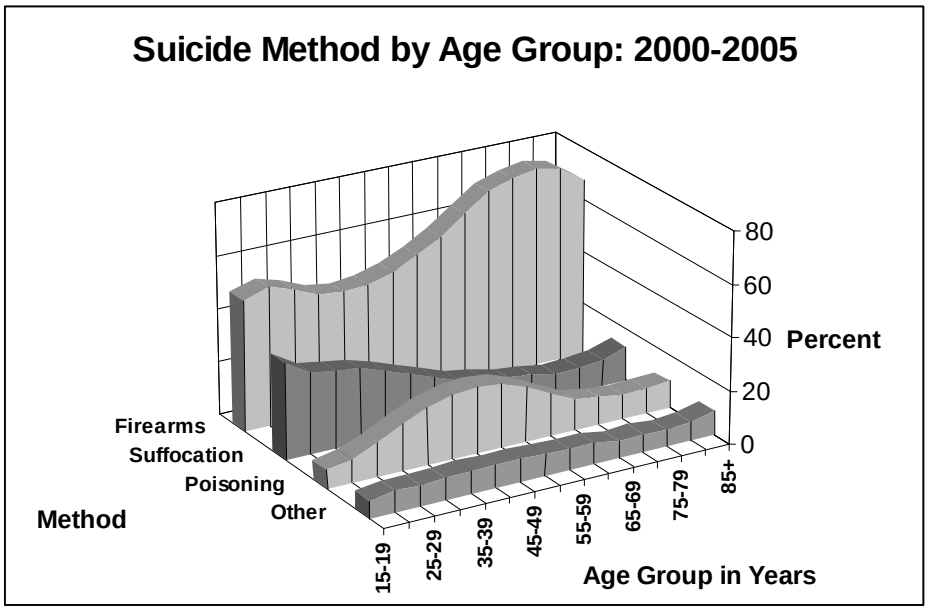
[5] Many of these factors are discussed in the Epidemiology Chapter. The presentation here provides another way to categorize them.

or sub-populations that appear to be the result of a contagion. These require a coordinated response from several state agencies—including mental health—depending on the specifics of each cluster. Additionally, sudden and major economic downturns can produce the kinds of loss that increase suicide risk across an entire sub-population. When this occurs, those with mental illness will likely be most harshly affected. News of plant closings or other causes of major declines in employment opportunity should prompt the SMHA to collaborate with other state officials in providing additional community-level support and services, including additional mental health prevention and treatment.

There is growing recognition of the importance of managing yet another environmental risk factor, access to lethal means of suicide. Our understanding of this risk factor's potency and the methods that mitigate it is perhaps stronger than any of the other environmental risk factors.

The most commonly used means of suicide in the US is firearms, according to an impressive and consistent body of evidence (Goldsmith et al., 2002). Firearms dominate all other methods across all age groups (CDC, 2007). They overshadow the next three most common methods: poisoning (mostly by over-the-counter or prescription drugs), strangulation or suffocation (most commonly hanging), and cutting (see Figure 2).

Figure 2. Suicide Method by Age Group



Source: CDC, National Center for Injury Control and Prevention, 2008

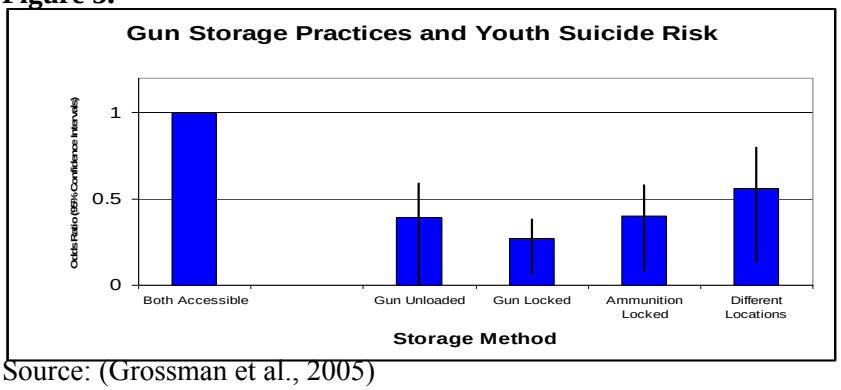
In 2002, 54% of Americans who completed suicide used a firearm. Of this figure, men accounted for 88% of all firearm suicides, but rates were even high, at 40%, among females and children (CDC, 2007). Approximately 90% of time, suicide victims use a gun if they lived in a home with a gun, but fewer that 10% of all firearm suicides involved a firearm from a home other than the victim's household (Kellerman et al., 1992).

"Seven case control studies in the U.S. have found that a gun in the home is a substantial risk factor for suicide." (Miller, 2001). A rigorous ecologic study using several nationally representative surveys covering all 50 states confirms yet another important association. "U.S. residents of all ages and both sexes are more likely to die from suicide when they live in areas where more households contain firearms. A positive and significant association exists between levels of household firearm ownership and rates of firearm and overall suicide; rates of non-firearm suicide were not associated with levels of household firearm ownership." (Miller et al., 2007). The findings are "consistent with the hypothesis that the availability of lethal means increases the rate of completed suicide." (Miller et al., 2007). This study controlled for the presence of serious mental illness and substance abuse and dependence (among other factors), to avoid any error that could be induced if individuals with these illnesses are more likely to own guns which could be used to end their lives.

Do efforts to reduce access to firearms work, and if so, do they reduce suicides? The evidence, simply put, shows that counseling families about gun storage practices in the emergency department (ED) setting do, in fact, reduce access to firearms (and other lethal means, too.) Education in the ED was the focus of a pioneering study conducted in the Midwest. The subjects of this study were caretakers of youths seen in EDs for whom a mental health assessment was part of the care delivered. These caretakers received training on actions they could take to prevent youth from gaining access to lethal means of suicide, namely firearms, alcohol, prescription medications, and over-the-counter medications. Compared with a control group, those receiving the education were nearly four times more likely to take action to limit access to lethal means (Kruesi et al., 1999). In fact, 63% of parents receiving the education took action to limit access to firearms, compared to none of the controls. Findings were significant for firearms and all types of medication, but not alcohol. Although this study was not designed to detect changes in suicide rates, it has generated enough interest to spur broader implementation in the US as well as additional programs to train ED nurses and physicians in the broader topic of youth violence prevention (Cunningham et al., 2005).

Many states have enacted laws to restrict access to firearms, with the express aim of preventing suicide in youth. The motivation behind these laws stems from the striking increase in the youth suicide rate since 1960, which has been found to be largely attributable to a rise in firearm mediated suicides (Goldsmith et al., 2002). Related studies have strongly confirmed the relationship, including one showing that 43% of homes had at least one unlocked firearm (Goldsmith et al., 2002; Schuster et al., 2000). A subsequent case-control study built on this finding. It concluded that four different ways to safely store guns reduced youth suicide, suicide attempts, or unintentional injuries: keeping a gun locked, unloaded, storing ammunition locked, and storing guns and ammunitions in separate locations (Grossman et al., 2005) (see figure 3). Relatedly, a program of gun-safety counseling in pediatric offices and a gun lock giveaway was found effective in promoting safe storage in a minority community of Hispanics (Carbone et al., 2005).

Figure 3.



Source: (Grossman et al., 2005)

Limiting access to medications, over-the-counter or prescription, is also an important suicide prevention measure, since these account for the third most frequently used means of suicide and the most common method of non-fatal attempts. Not surprisingly, in many areas practice standards already dictate advising parents or family members of individuals with SMI to take active measures to curb access to lethal doses of medications in the home with the expectation that these measures will reduce suicide.

The evidence strongly supports the use of environmental risk management (reduction) strategies to prevent suicide, especially with regard to access to lethal means. The studies discussed above indicate that ED-based counseling leads parents to restrict their children's access to firearms and other lethal means of suicide in their homes. Finally, youth living in homes using safe gun storage practices are less likely to die by suicide. In many cases, the successes of the youth-centered approaches could be extended to adults by involving family members and friends in managing the environment of at-risk adults.

Conclusions and Recommendations

The following conclusions and recommendations stem from the review of suicide prevention literature as well as materials, presentations and commentary from work group participants at the meeting. These do not represent every finding or recommendation from the group, but those that are most salient for the prevention of suicide among individuals with SMI through the influence and activity of the SMHA. .

Conclusion 1: **Suicide is a serious, but preventable public health threat that requires high profile recognition at the state level and a high priority on the state health agenda.**

Recommendation 1.1: **The Governor of each state should appoint a state advisory council to advance suicide prevention.**

The governor of each state should appoint a state advisory council on suicide prevention following the model of the Air Force's suicide prevention task force. This council should draw on leadership and expertise of the state health authority (SHA), SMHA, and others, with the stated goals of:

- Promoting awareness that suicide is a serious and preventable public health problem;
- Developing broad-based support for suicide prevention;
- Strengthening collaboration between public health and mental health agencies as well as other key agencies, such as education, child and family services, and criminal and juvenile justice;
- Developing and implementing strategies to reduce the stigma associated with mental illness;
- Recommending necessary public sector investments and statutory changes to support suicide prevention across the life course;
- Improving surveillance to monitor the prevalence of suicidal behaviors and assess the effectiveness of prevention efforts;
- Mitigating environmental risk factors for suicide, including access to lethal means, job related or economic losses, and contagion; and
- Promoting suicide prevention research.

Conclusion 2: **Persons with SMI carry a significantly elevated risk for suicidal behaviors. The SMHA has responsibility for providing mental health services to people with SMI, and in that position, is ideally positioned to lead suicide prevention efforts for this sub-population. Access to effective mental health services for people with SMI can prevent substantial morbidity and mortality associated with fatal and non-fatal suicidal behaviors.**

Recommendation 2.1: **The State Mental Health Authority (SMHA) should ensure suicide prevention programs and practices are in**

place for persons with SMI, working closely with other principals on the state suicide prevention advisory council.

SMHA as Lead

The SMHA should lead efforts to define standards for practices and procedures across state funded service providers serving individuals with SMI. In some cases this will take the form of establishing improved policies internal to the state's mental health system. For instance, the SMHA can ensure adequate suicide risk screening on admission, continued stay, discharge, and transfer between state funded behavioral health services and other health service providers. Individuals with mental illness and their families should receive education that promotes:

- Recognizing the warning signs for suicide,
- Adhering to treatment plans,
- Reducing access to lethal means in the home, and
- Understanding how to access the mental health system appropriately, including the National Suicide Prevention Lifeline, 1-800-273-TALK.

In addition, the SMHA can improve linkages by improving access to mental health services providers in rural and frontier areas. Mobile crisis teams and tele-mental health can help ensure timely access to expert consultation for risk assessment and crisis management. These services are only effective, however, if service providers across the state are aware they exist and can contact them conveniently and reliably.

SMHA Supporting Across Systems

The SMHA should support and collaborate with other agencies to ensure key services are delivered in ways that reduce suicide risk in all individuals, but especially those with SMI. First responders, physical health providers across the spectrum of care, secondary and higher education, juvenile and criminal justice, and child and family service providers of all kinds should be trained and have procedures in place to ensure they recognize and respond to suicide risk whenever it is present, not only after a person has acted on his or her thoughts of suicide. These services should be acting to promote mental health, as well, and not only treating mental illness. First responders, for instance, should receive training in providing compassionate care and consideration to survivors in the aftermath of a suicide, such that stigma and shame are reduced, and the likelihood of them finding helpful support services is enhanced. Additionally, screenings for suicide risk, along with mental illnesses, are recommended in many settings, especially in programs serving high risk individuals, such as in justice, alternative education, and agencies on aging. To be successful, though, individuals screened positive for mental illness or suicide risk must be able to access timely, affordable, and convenient mental health care. The training and policies envisioned can and should be part of a systematic approach to improve providers' understanding of persons with mental illness and collaboration among service sectors to promote their treatment and recovery.

SMHA in Oversight

The SMHA should establish suicide prevention as a critical performance measure for the state mental health system. The SMHA should implement risk management policies requiring that suicide attempts and completions occurring proximal to the delivery of publicly funded mental health services trigger quality improvement activities, including mandatory reporting, root cause analyses and clinical/peer review. On the basis of these reviews, policies and procedures should be continually revised and strengthened to prevent, in as much as possible, lapses in care quality. Similarly, mandatory reporting and quality improvement activities must follow suicidal incidents in all other state funded or licensed programs. The SMHA, as a primary stakeholder in suicide prevention, should play an integral part in the quality improvement process across state service systems.

Conclusion 3: **Individuals with SMI, who are also at heightened risk for suicide, can benefit from a robust continuum of care that extends beyond the boundaries of the traditional health and mental health care systems. Crisis hotlines provide relatively low-cost, effective services to individuals seriously contemplating suicide and are available to all regardless of geographical barriers, appointment availability, or ability to pay.**

Recommendation 3.1: **The public mental health system should support and collaborate with crisis hotlines to ensure individuals at risk for suicide, including those who have made a suicide attempt, can readily access high quality crisis support services.**

Because crisis hotlines are universally accessible, they are in a unique position to intervene with individuals at various points along the pathway to suicidal behavior, including the moments or hours prior to fatal decisions. Crisis hotlines are especially helpful in rural areas or communities where access to or funding for mental health services are limited. Studies indicate that crisis hotlines play a critical role in the full array of available services provided by the mental health system. Crisis hotlines could also be utilized to provide monitoring or tracking of patients after hospital treatment for a suicide attempt. Crisis hotlines deserve the active support of the SMHA to ensure high quality, cost-effective services are consistently available to all residents of the state.

Conclusion 4: **Poor communication and lack of information sharing between social service agencies, law enforcement, justice, education, health care and mental health care providers and others precludes key opportunities to advance suicide prevention efforts for persons with SMI.**

Recommendation 4.1: **The SMHA and the SHA should lead efforts to improve collaboration and information sharing and surveillance between and among systems of care for all persons, but especially for persons with SMI. These efforts should promote the use of standard terminology.**

Information sharing of datasets between and among systems of care can significantly improve surveillance and suicide prevention. In order to improve coordination and continuity of care for individuals with SMI, agencies must work seamlessly to provide integrated services for clients with varied and complex needs. Information sharing between agencies can trigger more timely assessments across time and conceivably eliminate the need for more costly interventions (e.g., hospitalization) later on.

Furthermore, surveillance data on suicide attempts are sparse locally and non-existent nationally. More robust surveillance systems—drawing from healthcare, education, law enforcement, justice, telephone crisis centers, or other service providers—can improve overall program efficiency and identify missed prevention opportunities. Integration of these data with other indicators of social behavior, e.g., quality-of-life surveys, divorce rates, crime statistics, unemployment rates, and demographic changes can improve the current understanding of the problem.

Integrating these data into an annual report for each state could help guide the state advisory council as well as regional task forces as they seek to:

- Identify priorities for planning and programming;
- Track changes in rates of suicidal behaviors over time;
- Identify the emergence of new risk factors or behavioral patterns (such as changes in methods used or rates among certain subpopulations); and
- Evaluate the effectiveness of suicide prevention efforts.

Conclusion 5: **Lapses in continuity of care, especially after discharge from emergency departments and inpatient psychiatry units, contribute to significant suicide-related morbidity and mortality.**

Recommendation 5.1: **The SMHA, in collaboration with the SHA, should initiate policies and practices that promote improved continuity of care for individuals at heightened risk for**

suicide following discharge from emergency departments for suicide attempts and inpatient psychiatric hospitalization.

Post-discharge continuity of care begins by accurately assessing suicidal risk at the time of discharge. From this vantage point, the discharging clinician can match the individual's social and care needs with those available through family and friends and the larger community. This task is most complex for individuals with SMI, and most critical. Treatment monitoring and follow-up must become the norm, replacing the often lethal course of episodic care provided in the emergency department. Available telephone crisis centers can fill some seams in the care options available to at-risk individuals, but only if the service is emphasized to patients at the time of discharge. Follow-up telephone contact and post-cards add to the array of options, as well.

This recommendation supports Objective 7.1 of the National Strategy for Suicide Prevention, which calls to increase in the proportion of patients treated for self-destructive behavior in hospital emergency departments who pursue the proposed mental health follow-up plan. When that plan is developed collaboratively with patients, recognizing their particular preferences, needs, and constraints, follow-up care is more likely to be effective in preventing repeated episodes of self-injury and easing an individual's reintegration into community life.

Conclusion 6: **Suicide risk often goes undetected, even though individuals at heightened risk for suicide frequently seek and receive medical care in primary care settings. Screening of persons with depression and substance abuse in primary care settings can identify individuals at elevated risk for suicide and expedite their referral for definitive evaluation and treatment.**

Recommendation 6.1: **The SMHA, in collaboration with the SHA, should require screening for suicide risk at all primary care appointments for those individuals who exhibit risk factors such as depression or substance abuse.**

Primary care-based screening for suicide risk in individual's exhibiting risk factors such as depression or substance abuse holds promise for decreasing the large numbers of individuals who die by suicide shortly after receiving primary care services. Indicators of suicidal risk can be elicited by a combination of paper-and-pencil questionnaires and a few probing questions asked by a nurse. If risk appears to be heightened a full assessment should be performed by an experienced mental health professional. Urgent assessments can be performed by mobile crisis teams or in local emergency departments. Coordination between care providers is essential.

Conclusion 7: **Individuals who have access to lethal means of suicide have higher rates of suicide.**

Recommendation 7.1: **The SMHA, in collaboration with the SHA, should develop and implement strategies to reduce access to lethal means of suicide.**

If integrated into emergency, primary care, and mental health services, counseling to reduce access to fire arms and lethal quantities of prescription or non-prescription medications could significantly reduce suicide risk in those with SMI, as well as the general population. For those with a known history of suicidal thoughts or attempts, action of this type should be even more aggressive. Engaging family members and friends to help monitor such access should be employed whenever possible.

For inpatients, facility design and standard operating procedures, including provisions for direct observation, should limit in every way possible a patient's access to means for suffocation by hanging.

Conclusion 8: **Members of the general public, and especially people with SMI and their families, are unaware of suicide's toll on society and the heightened risk of suicide carried by many individuals with SMI. Increasing awareness of suicide among individuals with SMI and their families and reducing the social stigma, shame and humiliation associated with having mental illness are key elements of comprehensive suicide prevention.**

Recommendation 8.1: **The SMHA, in collaboration with the SHA, should strengthen psycho-education programs in communities and for at-risk populations. Objectives should include eliminating stigma associated with mental illness, care seeking, and recovery from a suicide attempt.**

The importance of increasing mental health literacy in communities was demonstrated in the Air Force's intervention and should be replicated in communities across the country. Educational programs should include information on warning signs, key risk and protective factors, intervention strategies, and available resources, including mental health services and support groups. Improving the public's perception of individuals with mental illnesses and reducing stigma should be foci of any educational program. Discussing the nature and causes of mental illness is important, but so is emphasizing the fact that most mental illnesses respond to treatment and that recovery is a reasonable expectation for persons with mental illness.

Community-level education can be conducted through a variety of methods, including:

- Seminars;
- Health fairs;
- Newsletter articles;
- Speakers bureaus;
- Op eds;
- E-mail messages;
- Websites;
- Posters, brochures, and other print materials;

Efforts should be tailored according to the target audience and setting (see table 2).

Table 2: Audiences and settings for community psycho-education programs

Audience	Setting
• Communities at large; • At-risk populations; • Teachers and other school personnel; • Clergy; • Police; • Correctional personnel; • Attorneys; • Funeral directors; • Employees and supervisors; • Employee assistance professionals; and • Health care staff.	• Professional meetings and conferences; • High schools; • Colleges; • Nursing homes; • Senior centers; • Government agencies; • Law enforcement agencies; • Community centers; • Hospitals; • Outpatient clinics; • Civil clubs; • Places of worship; • Worksites; and • Workplaces.

Conclusion 9: **Specific treatments for certain mental illnesses can significantly reduce suicidal behaviors. Access to these treatments is inadequate.**

Recommendation 9.1: **The SMHA, in collaboration with the SHA, should develop and promote new models for providing evidence-based services over the life course for those who have attempted suicide, particularly for those who have made multiple or medically serious attempts.**

Recommendation 9.2 **The SMHA should implement strategies to improve training of mental health professionals in evidence-based treatments that reduce rates of suicidal behaviors among the mentally ill.**

As the evidence-base grows for treatments that are effective in reducing suicidal behaviors among individuals with SMI, SMHAs must ensure the mental health workforce is trained to deliver these treatments and that incentives exist within the state's healthcare financing policies to provide the services. Furthermore, SMHA's should recognize that large portions of the mental health workforce received little or no formal training in the rudiments of assessing and managing suicide risk prior to being licensed. Fortunately, workshops are now widely available to teach these rudiments of practice as well as build skills delivering the various effective therapies.

Conclusion 10: **Funding for suicide prevention and response is disproportionately low when compared to other serious health threats. Increased public and private funding is necessary to make systematic improvements to the health care and social services provided to those at highest risk for suicide, persons with SMI.**

Recommendation 10.1 **NASMHPD should increase its efforts to advance suicide prevention through its work in the state and federal policy arenas.**

Using its national influence, NASMHPD should promote public policies to specifically advance suicide prevention among individuals with SMI. NASMHPD should:

- Create social marketing campaigns to reduce stigma and promote suicide prevention;
- Develop model suicide prevention policies for programs that provide services to individuals with SMI;
- Advocate for appropriate and comprehensive training of mental health providers in basic competencies of assessing and managing suicide risk;
- Campaign for health care financing policies, including mental health parity, that ensure qualified providers are available to deliver evidence-based mental health treatments across the life course; and
- Establish and strengthen partnerships other public and private stakeholder organizations to advance suicide prevention.

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Attachment A

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Attachment B
Suicide in the United States Official Data

U.S.A. SUICIDE: 2005 OFFICIAL FINAL DATA

	Number	Per Day	Rate	% of Deaths
Nation	32,637	89.4	11.0	1.3
Males	25,907	71.0	17.7	2.1
Females	6,730	18.4	4.5	0.5
Whites	29,527	80.9	12.3	1.4
Nonwhites	3,110	8.5	5.5	0.9
Blacks	1,992	5.5	5.1	0.7
Elderly (65+ yrs.)	5,404	14.8	14.7	0.3
Young (15-24 yrs.)	4,212	11.5	10.0	12.3

Group (Number of Suicides)	Rate
White Male (23,478)	19.7
White Female (6,049)	5.0
Nonwhite Male (2,429)	9.0
Nonwhite Female (681)	2.3
Black Male (1,621)	8.7
Black Female (371)	1.8
Hispanic (2,188)	5.1
Native Americans (392)	12.4
Asian/Pacific Islanders (726)	5.2

Completions (Fatal Outcomes): ***a stable rate from 2004 was seen in 2005, continuing a pattern of stability or slight declines in recent years***

- Average of 1 person every 16.1 minutes killed themselves
- Average of 1 old person every 1 hour and 37.3 minutes killed themselves
- Average of 1 young person every 2 hours and 4.8 minutes killed themselves. (If the 272 suicides below age 15 are included, 1 young person every 1 hour and 57.2 minutes)
- 11th ranking cause of death in U.S.— 3rd for **young**
- 3.8 male deaths by suicide for each female death by suicide
- Suicide ranks 11th as a cause of death; Homicide ranks 15th

Cause	Number	Rate
All Causes	34,234	81.4
1-Accidents	15,753	37.4
2-Homicide	5,466	13.0
3-Suicide	4,212	10.0
10-14 yrs	270	1.3
15-19 yrs	1613	7.7
20-24 yrs	2599	12.4

Attempts (figures are estimates; no official U.S. national data are compiled) *(Nonfatal)*:

- 816,000 [815,925] annual attempts in U.S. (using 25:1 ratio)
- Translates to one attempt every 39 seconds (based on 815,925 attempts)
- 25 attempts for every death by suicide for nation; 100-200:1 for young; 4:1 for elderly
- 3 female attempts for each male attempt

Survivors (i.e., family members and friends of a loved one who died by suicide):

- *Each suicide intimately affects at least 6 other people* (estimate)
- Based on the 760,338 suicides from 1981 through 2005, estimated that the number of survivors of suicides in the U.S. is 4.6 million (1 of every 65 Americans in 2005); number grew by at least 195,822 in 2005
- If there is a suicide every 16.1 minutes, then there are 6 new survivors every 16.1 minutes as well

Suicide Methods	Number	Rate	Percent of Total		Number	Rate	Percent of Total
Firearm suicides	17,002	5.7	52.1%	All but Firearms	15,635	5.3	47.9%
Suffocation/Hanging	7,248	2.4	22.2%	Poisoning	5,744	1.9	17.6%
Cut/pierce	590	0.2	1.8%	Drowning	375	0.1	1.1%

U.S.A. Suicide Rates 1995-2005
(Rates per 100,000 population)

Group/ Age	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Group/ Age
5-14	0.9	0.8	0.8	0.8	0.6	0.8	0.7	0.6	0.6	0.7	0.7	5-14
15-24	13.3	12.0	11.4	11.1	10.3	10.4	9.9	9.9	9.7	10.3	10.0	15-24
25-34	15.4	14.5	14.3	13.8	13.5	12.8	12.8	12.6	12.7	12.7	12.4	25-34
35-44	15.2	15.5	15.3	15.4	14.4	14.6	14.7	15.3	14.9	15.0	14.9	35-44
45-54	14.6	14.9	14.7	14.8	14.2	14.6	15.2	15.7	15.9	16.6	16.5	45-54
55-64	13.3	13.7	13.5	13.1	12.4	12.3	13.1	13.6	13.8	13.8	13.9	55-64
65-74	15.8	15.0	14.4	14.1	13.6	12.6	13.3	13.5	12.7	12.3	12.6	65-74
75-84	20.7	20.0	19.3	19.7	18.3	17.7	17.4	17.7	16.4	16.3	16.9	75-84
85+	21.6	20.2	20.8	21.0	19.2	19.4	17.5	18.0	16.9	16.4	16.9	85+
65+	18.1	17.3	16.8	16.9	15.9	15.3	15.3	15.6	14.6	14.3	14.7	65+
Total	11.9	11.6	11.4	11.3	10.7	10.7	10.8	11.0	10.8	11.0	11.0	Total
Men	19.8	19.3	18.7	18.6	17.6	17.5	17.6	17.9	17.6	17.7	17.7	Men
Women	4.4	4.4	4.4	4.4	4.1	4.1	4.1	4.3	4.3	4.6	4.5	Women
White	12.9	12.7	12.4	12.4	11.7	11.7	11.9	12.2	12.1	12.3	12.3	White
Nonwh	6.9	6.7	6.5	6.2	6.0	5.9	5.6	5.5	5.5	5.8	5.5	NonWh
Black	6.7	6.5	6.2	5.7	5.6	5.6	5.3	5.1	5.1	5.2	5.1	Black

15 Leading Causes of Death in the U.S.A., 2005
(total of 2,448,017 deaths; 825.9 rate)

Rank & Cause of Death	Rate	Deaths
1 Diseases of heart (heart disease)	220.0	652,091
2 Malignant neoplasms (cancer)	188.7	559,312
3 Cerebrovascular diseases (stroke)	48.4	143,579
4 Chronic lower respiratory diseases	44.2	130,933
5 Accidents (unintentional injuries)	39.7	117,809
6 Diabetes mellitus (diabetes)	25.3	75,119
7 Alzheimer's disease	24.2	71,599
8 Influenza & pneumonia	21.3	63,001
9 Nephritis, nephrosis (kidney disease)	14.8	43,901
10 Septicemia	11.5	34,136
11 Suicide [Intentional Self-Harm]	**11.0**	**32,637**
12 Chronic liver disease and cirrhosis	9.3	27,530
13 Essential hypertension and renal disease	8.4	24,902
14 Parkinson's disease	6.6	19,544
15 Homicide [Assault]	6.1	18,124
- All other causes (Residual)	146.4	433,800

Old made up 12.4% of 2005 population but represented 16.6% of the suicides.
Young were 14.2% of 2005 population and comprised 12.9% of the suicides.
967,570 Years of Potential Life Lost Before Age 75 (29,577 of 32,637 suicides below age 75)

Official data source: H.-S. Kung, D. L. Hoyert, J. Xu, & S. L. Murphy. (2008, January). Deaths: Final Data for 2005. *National Vital Statistics Reports, 56*(10). http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_10.pdf obtained 16 January 2008. Many figures appearing here are calculated from data in this report. Some data obtained 24 January from CDC's WISQARS website http://www.cdc.gov/ncipc/wisqars/ .

$$\text{suicide rate} = \frac{\text{number of suicides by group}}{\text{population of group}} \times 100{,}000$$

Suicide Data Page: 2005
finalized 24 January 2008
Prepared for *AAS* by John L. McIntosh, Ph.D.

Rate, Number, and Ranking of Suicide for Each U.S.A. State, 2005*

Rank	State [Division] (2004 rank)	Deaths	Rate
1	Montana [M] (2T)	206	22.0
2	Nevada [M] (2T)	480	19.9
3	Alaska [P] (1)	131	19.7
4	New Mexico [M] (4)	342	17.7
4	Wyoming [M] (5)	90	17.7
6	Colorado [M] (6)	800	17.1
7	Idaho [M] (7)	228	16.0
8	Arizona [M] (11)	945	15.9
9	South Dakota [WNC] (13)	121	15.6
10	Oregon [P] (10)	560	15.4
11	Oklahoma [WSC] (14)	522	14.7
12	North Dakota [WNC] (29)	92	14.5
13	Arkansas [WSC] (20)	400	14.4
13	Tennessee [ESC] (18T)	856	14.4
15	Utah [M] (9)	348	14.1
16	West Virginia [SA] (8)	255	14.0
17	Kentucky [ESC] (16T)	566	13.6
18	Florida [SA] (15)	2,347	13.2
18	Kansas [WNC] (16T)	362	13.2
18	Maine [NE] (21)	175	13.2
21	Washington [P] (18T)	822	13.1
22	Missouri [WNC] (22)	727	12.5
22	Vermont [NE] (12)	78	12.5
24	Mississippi [ESC] (23)	363	12.4
24	New Hampshire [NE] (39T)	162	12.4
26	South Carolina [SA] (29T)	510	12.0
27	Indiana [ENC] (33)	745	11.9
28	Alabama [ESC] (24T)	535	11.7
28	Ohio [ENC] (29T)	1,341	11.7
30	North Carolina [SA] (24T)	1,009	11.6
30	Wisconsin [ENC] (24T)	643	11.6
32	Pennsylvania [MA] (32)	1,430	11.5
33	Virginia [SA] (35)	866	11.4
34	Iowa [WNC] (28)	333	11.2
34	Louisiana [WSC] (27)	505	11.2
	Total	**32,637**	**11.0**
36	Michigan [ENC] (36T)	1,108	10.9
37	Minnesota [WNC] (38)	547	10.7
38	Nebraska [WNC] (41)	187	10.6
38	Texas [WSC] (39T)	2,418	10.6
40	Georgia [SA] (36T)	924	10.2
41	Delaware [SA] (34)	83	9.8
42	California [P] (42)	3,206	8.9
43	Illinois [ENC] (46)	1,086	8.5
44	Connecticut [NE] (45)	295	8.4
44	Hawaii [P] (43)	107	8.4
44	Maryland [SA] (44)	472	8.4
47	Massachusetts [NE] (49)	480	7.5
48	Rhode Island [NE] (47)	71	6.6
49	New York [MA] (50)	1,189	6.2
50	New Jersey [MA] (48)	536	6.1
51	District of Columbia [SA] (51)	33	6.0

Caution: Annual fluctuations in state levels combined with often relatively small populations can make these data highly variable. The use of several years' data is preferable to conclusions based on single years alone.

Division [Abbreviation]	Rate	Number
Mountain [M]	16.9	3,439
East South Central [ESC]	13.2	2,320
West North Central [WNC]	12.0	2,369
South Atlantic [SA]	11.6	6,499
West South Central [WSC]	11.4	3,845
Nation	**11.0**	**32,637**
East North Central [ENC]	10.7	4,923
Pacific [P]	10.1	4,826
New England [NE]	8.9	1,261
Middle Atlantic [MA]	7.8	3,155

Region [Subdivision Abbreviations]	Rate	Number
West (M, P)	12.1	8,265
South (ESC, WSC, SA)	11.8	12,664
Midwest (WNC, ENC)	11.1	7,292
Nation	**11.0**	**32,637**
Northeast (NE, MA)	8.1	4,416

Source: H.-S. Kung, D. L. Hoyert, J. Xu, & S. L. Murphy. (2008, January). Deaths: Final Data for 2005. *National Vital Statistics Reports, 56*(10). http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_10.pdf obtained 16 January 2008. [Note: divisional and regional figures calculated from state data; state mortality data appear in Table 29 and population data appear in Table VII]
[data are by place of residence]
[Suicide = ICD-10 Codes X60-X84, Y87.0, U03]

Note: All rates are per 100,000 population.

* Including the District of Columbia.

Suicide State Data Page: 2005
17 January 2008

Prepared by John L. McIntosh, Ph.D. for

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"to understand and prevent suicide as a means of promoting human well-being"

Visit the AAS website at:
http://www.suicidology.org

For other suicide data, and an archive of state data, visit the website below and click on the "Recent Suicide Statistics" link:
http://mypage.iusb.edu/~jmcintos/

Attachment C
Risk and Protective Factors[6]

Biopsychosocial Risk Factors

- Mental disorders, particularly mood disorders, schizophrenia, anxiety disorders and certain personality disorders
- Alcohol and other substance use disorders
- Hopelessness
- Impulsive and/or aggressive tendencies
- History of trauma or abuse
- Some major physical illnesses
- Previous suicide attempt
- Family history of suicide

Sociocultural Risk Factors

- Lack of social support and sense of isolation
- Stigma associated with getting mental health or substance abuse care
- Barriers to accessing mental health and substance abuse treatment
- Certain cultural and religious beliefs (e.g., the belief that suicide is a noble resolution of a personal dilemma)
- Exposure to, including media exposure, others who have died by suicide

Environmental Risk Factors

- Easy access to lethal means of suicide (e.g., firearms, medications, etc.)
- Job or financial loss
- Relational or social loss
- Local clusters of suicide with a contagious influence

Protective Factors

- Effective and appropriate clinical care for mental, physical, and substance abuse disorders;
- Easy access to a variety of clinical interventions and support for help seeking;
- Restricted access to highly lethal methods of suicide;
- Family and community support;
- Support from ongoing medical and mental health care relationships;
- Skills in problem solving, conflict resolution, and nonviolent handling of disputes; and
- Cultural and religious beliefs that discourage suicide and support self-preservation instincts.

[6] DHHS, 2001, National Strategy for Suicide Prevention.

Attachment D
Risk Management in Clinical Settings

Any program providing care or treatment for individuals should consider the general areas of risk listed below at the time of admission, continued stay, and discharge:

- Being cognizant of and respecting advance directives;
- Policies for Against Medical Advice (AMA) and treatment refusal;
- Policies for AWOL/escape;
- Being aware of and following commitment criteria;
- Ensuring necessary communication within an agency/facility;
- Assessing competence to give informed consent;
- Policies for complaints, grievances, and appeals;
- Ensuring confidentiality;
- Being cognizant of and following conservatorship stipulations;
- Being aware of and respecting patients' rights;
- Developing contingency management criteria to ensure patient safety;
- Ensuring appropriate documentation;
- Ensuring appropriate evaluations;
- Policies for incidents, critical incidents, and deaths;
- Providing care and treatment at the appropriate level of care ;
- Mandatory clinical and/or forensic review for difficult cases;
- Being cognizant of and following mandatory reporting requirements;
- Implementing a comprehensive medication administration policy;
- Policies for managing no shows and cancellations;
- Policies for precautions and privileges;
- Identifying and linking with the primary care provider;
- Policies for risk screening and assessment;
- Policies for seclusion and restraint;
- Policies for special conditions, such as legal status, medical issues, etc.;
- Policies for treatment plans; and
- Policies for visitors.

Each provider of care must have a risk management plan that it follows faithfully, taking into consideration their clinical and administrative capabilities. At a minimum this plan should include risk screens and some method of assessing risk.

"A risk management program seeks to ensure that during the provision of effective, high-quality mental health services to individuals in need, the possibility of adverse events or harm is reduced through early identification of actual or potential problems, the use of appropriate interventions, and outcome monitoring." (Lawlor, 2002) A comprehensive approach should include a standardized risk screen/assessment tool, which ensures:

- A risk screen is performed at intake for every individual by a qualified clinician;

- All identified risk issues are incorporated into an individual's treatment plan;
- Risk occurrences are documented, including an assessment of the risk and incorporation of the risk into the treatment plan;
- Clinicians have been adequately trained to understand that every interaction with the individual involves a brief risk assessment;
- Training of non-clinical staff is essential so that they are clinically informed and know when to call for clinical backup;
- Procedures are effective for the management of high-risk individuals; and
- Risk information is accessible to all caregivers when it is needed.

A risk screen should gather data about the individual's outwardly-directed violence, self-directed violence, fire-setting behaviors, sexual aggression or deviant behavior, and non-adherence with treatment.

Reference:

Lawlor, Ted. (July 2002). *Public Sector Risk Management: A Specific Model;* Administration and Policy in Mental Health, Vol. 29, No. 6. pp. 443 – 460.