National Strategy for Suicide Prevention: Goals and Objectives for Action

GOAL 5: Promote Efforts to Reduce Access to Lethal Means and Methods to Self-Harm

Why is the Goal Important to the National Strategy?

Evidence from many countries and cultures shows that limiting access to lethal means and methods of self-harm is an effective strategy to prevent self-destructive behaviors in certain individuals (Brent et al., 1987; Kellerman et al., 1992; Kreytman, 1976). Often referred to as "means restriction," this preventive intervention approach is based on the belief that a small but significant number of suicidal acts are, in fact, impulsive and of the moment (Mann, 1998). A number of suicidal behaviors result from a combination of psychological pain or despair coupled with the availability of the means by which to inflict self-injury (Shneidman, 1999). If intervention is not possible when an individual is in a state of psychological pain, a self-destructive act may be prevented by limiting the individual's access to the means or methods of self-harm. Evidence suggests that there may be a limited time effect for decreasing suicide, as over time, individuals with ongoing suicide intent may substitute a more available for the restricted, less available methods (Marzuk, 1992).

Did You Know?

For every two victims of homicide in the U.S. there are three deaths from suicide.

Controversy exists about how to accomplish this goal because restricting means can take many forms and signifies different things to different people. Different types of means restrictions may be effective in different settings and for different populations. For some, it may connotes redesigning or altering the existing lethal means of self-harm currently available, and to others eliminating or limiting their availability to those at risk for self-harm.

This goal is important and necessary to contribute to an overall effort to reduce the rates of suicide and suicidal behaviors in our population. Means restriction is a key activity in a broader public health approach to reducing intentional injuries.

Background Information and Current Status

In the United States, the focus has been on protecting individuals from access to loaded firearms, lethal doses of prescription medications or illegal substances, illegal access to alcohol by underage youth, and danger-ous settings (such as bridges and rooftops of high buildings) (Birkmayer & Hemenway, 1999; Brent et al., 1993b; Marzuk et al., 1992; O’Carroll, Silverman & Berman, 1994).

The majority of suicides and homicides in the U.S. are firearm-related (NCHS, 1997). Between 40-50 percent of all U.S. households have a firearm inside the
home. Much focus has been placed on firearm restrictions and safety measures including education, improved storage, and the technology of ensuring that a firearm will not fire unintentionally or be used by those for whom it was not intended. According to recent research (Brent et al., 1988, 1991, 1993a; Kellerman et al., 1992), those who use firearms for suicidal behaviors in the home are not necessarily those who purchase the weapons. Firearms must be safely stored so they are not misappropriated and improperly used.

In 1996, the Youth Suicide by Firearms Task Force met to endorse a consensus statement on youth suicide by firearms (Berman, 1998). They concluded that there is clear evidence that intervening in or preventing the immediate accessibility of a lethal weapon can save lives. They identified the safe storage of guns as one preventive intervention approach that would result in the decrease in the number of youth suicides. Close to 40 national organizations endorsed a combination of indicated, selective, and universal preventive interventions addressing this objective.

In addition to efforts related to firearms, activities have been devoted to educating physicians and other prescribing and dispensing professionals about limiting prescriptions of potentially lethal medications to amounts that are non-lethal. Issues of training related to prescribing and dispensing medications are covered in Goal 6.

Improvements and changes in car exhaust emissions have resulted in a decrease in carbon monoxide poisoning and death by this means. The objectives point to the necessity of collaborating with all stakeholders including, but not limited to, the auto industry, the pharmaceutical industry, gun proponent groups, and gun manufacturers.

How Will the Objectives Facilitate Achievement of the Goal?

Much more needs to be done to reduce the likelihood of the use of lethal means during an impulsive act of self-injury or self-destruction. By eliminating or restricting the easy availability of one particular means of suicide, impulsive individuals often do not substitute another method in the immediate time frame. Current forms of means restriction have meaning over the short-term, but may not over the long-term (Marzuk et al., 1992). Thus, separating in time and space the suicidal impulse from access to lethal means and methods of self-harm has great potential for saving lives.

Objective 5.1: By 2005, increase the proportion of primary care clinicians, other health care providers, and health and safety officials who routinely assess the presence of lethal means (including firearms, drugs, and poisons) in the home and educate about actions to reduce associated risks.

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<td>Develop an emergency department screening tool to assess the presence of lethal means in the home. Develop standardized practices for law enforcement response to domestic emergencies that assess for the presence of lethal means and advocate their removal or safe storage.</td>
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It has been shown that the presence of a lethal means of self-destruction in the home (particularly a firearm) is associated with increased rates of suicide (Brent et al., 1993, Kellerman et al., 1992). Because of their positions, primary care
clinicians, other health care providers, and health and safety officials ordinarily inquire about an individual's overall health, safety, and welfare, including their mental health (Goldman, Wise & Brody, 1998). It is incumbent upon them to ask patients, families, and care givers routinely about the presence of lethal means of self harm and to evaluate the risk for their use. This is especially important when talking with individuals who are in crisis, or who have mental disorders, substance abuse problems, or suicidal thoughts (Goldman, Silverman & Albert, 1998; WHO, 2000c).

Safety officials and health care providers are also in a unique position to educate about firearm storage and access, and about appropriate storage of alcoholic beverages, prescription drugs, over-the-counter medications, and poisons used for household purposes (bleaches, disinfectants, herbicides). To aid in this effort, for example, the American Academy of Pediatrics has developed guidelines on how to talk to parents about the presence of guns in the home (AAP, 1992). Such actions may reduce the likelihood that these lethal means will be used for self-destructive outcomes.

**Objective 5.2:** By 2005, expose a proportion of households to public information campaign(s) designed to reduce the accessibility of lethal means, including firearms, in the home.

Public information campaigns have been shown to be of great value in changing health behavior and improving public health. Successful campaigns have decreased tobacco use, increased seat belt use, decreased the number of drunk drivers through designated driver campaigns, decreased alcohol use during pregnancy, increased early detection of cancer symptoms, decreased use of illicit drugs (particularly among adolescents and young adults), and increased installation of smoke alarms in homes. The success of these campaigns provides hope that similar efforts will be successful in educating the public about reducing access and availability to lethal means, including firearms, in the home.

**Objective 5.3:** By 2005, develop and implement improved firearm safety design using technology where appropriate.

**Idea for Action**
Educate parents about how to appropriately store and secure lethal means of self-harm.

Efforts are underway to explore the use of technology to improve the safety of firearms. Activities include development of removable firearm pins, computer chips to ensure that only the owner can activate the weapon ("smart guns"), and devices to indicate whether a gun's chamber is loaded. These and other efforts need to be completed so that firearms can be made safer for their intended uses and prevented from being used for self-destructive purposes.

**Objective 5.4:** By 2005, develop guidelines for safer dispensing of medications for individuals at heightened risk of suicide.

**Idea for Action**
Develop educational materials to make parents aware of safe ways of storing and dispensing common pediatric medications.

There has been a significant improvement in limiting the potential for lethal
overdose with the newer generation of antidepressants currently available (i.e., selective serotonin reuptake inhibitors and other related compounds are less lethal in overdose). Still, some individuals benefit from the use of older antidepressants and there are many other medications that are dangerous in relatively small overdoses. Processes that ensure flexibility in the frequency of prescription refills and regular contact with patients who use these medications need to be developed and supported.

**Objective 5.5:** By 2005, improve automobile design to impede carbon monoxide-mediated suicide.

Carbon monoxide poisoning and death occurs with prolonged exposure to car exhaust fumes. The redesign of automobile monitoring and exhaust systems would make carbon monoxide poisoning more difficult to accomplish, especially for someone who may be impulsive. Such efforts would also reduce the likelihood of accidental deaths. Cost analyses are needed to determine best approaches.

**Ideas for Action**
Design reliable ignition shut-off sensors that respond to potentially lethal levels of carbon monoxide.

**Objective 5.6:** By 2005, institute incentives for the discovery of new technologies to prevent suicide.

The development of safer drugs and better medical emergency technologies and techniques to intervene in the treatment of overdoses and self-poisonings will result in saving more lives. Better computer technologies will improve the means of educating and communicating messages faster and more precisely. Engineering advances have the potential to influence the design and construction of safer bridges and roof barriers, the design and operation of firearms that function solely for the purposes for which they are intended, and the development of more fuel-efficient and cleaner engines for automobiles. New medical technologies may include the use of blood tests to determine who may be at increased risk for suicide and who might benefit from the use of a particular medication.

**Ideas for Action**
Provide incentives for the discovery of new technologies such as annual awards and recognition by professional organizations.