RESTRICTING ACCESS TO LETHAL MEANS

In 2007, the Center for Disease Control (CDC) reported that there were 34,598 suicide deaths across the country. Over 32,000 of these deaths were attributed to firearms, hanging/suffocation or poisoning. Emerging research, along with historical accounts, demonstrate that restricting access to lethal means is an effective method to reduce overall suicide rates. Integrating means restriction strategies into integrated suicide prevention efforts can decrease the risk of suicide and increase the impact of suicide prevention programs.

THE RISK OF ACCESS TO LETHAL MEANS

Firearms, poisoning, and hanging/suffocation account for the majority of lethal means-based fatalities in California. Of the 3,743 suicides that occurred in 2009, firearms accounted for 1,496 (40%) deaths, poisonings accounted for 750 (20%) deaths, and hanging/suffocation accounted for 1,089 (30%) deaths (CA Department of Public Health, 2009). Lethality of means can be expressed using “case fatality rates”: ninety one percent of individuals who use a firearm for suicide die by their action; the case fatality rate of those who hang or suffocate is 80% (Nordentoft, 2007).

Differential use of lethal means may be a factor in the differences in attempt and death rates among males and females, as well as between age groups. Studies worldwide demonstrate that a great proportion of female suicides involve overdose compared to males, while male suicides often involve more lethal methods such as shooting or hanging (Nordentoft, 2007). Non-fatal suicide attempts are more frequent in women while completed suicides are higher in men (Miller & Hemenway, 1999). Youth’s use of lethal means has also changed over the years – from 1992 to 2006, the suicide rate due to hanging/suffocation increased across the country, especially in females, while the suicide rate due firearms and poisoning decreased. This decrease may be related to heightened awareness of and intervention against the use of specific means and efforts to restrict lethal means (Bridge, et al., 2010).

THE IMPORTANCE OF RESTRICTING ACCESS

The California Strategic Plan on Suicide Prevention (2008) emphasized the importance of reducing access to lethal means as part of an integrated approach to suicide prevention. Studies cited in the Strategic Plan argue that acting upon a suicidal thought is often relatively impulsive and short-lived. In a study of survivors of suicide attempts, almost half reported that less than one hour had passed between their decision to complete suicide and the actual attempt and another 24% indicated that it was less than 5 minutes (California Strategic Plan on Suicide Prevention, 2008). Restricting immediate access to lethal means can help elongate the time between a suicidal thought and a potential suicidal act. During this time, suicidal impulses may subside and opportunities for help can occur.

Evidence suggests that individuals often have a preference for a given means that may be shaped by personal ideas, cultural factors, and awareness of methods used in other suicides. The best evidence suggests that method substitution, which is when access to a preferred means is denied or limited and individuals do not “substitute” the means by another method, is unlikely (Johnson & Coyne-Beasley, 2009). While individual behavior cannot be controlled, this research suggests that limiting immediate access to an individual’s preferred means can reduce the risk of suicide in many cases.

The Vision of the California Office of Suicide Prevention
To implement & support a full range of strategies, from prevention through crisis intervention and postvention to prevent suicide and suicidal behaviors in California.
**Positive Outcomes**

The impact of restricting access to lethal means on suicide rates has been historically documented. One of the most well-known examples involving coal gas in the United Kingdom dates back to the 1950s. At the time, poisoning by gas inhalation was the leading means of suicide in the UK due to the gas’ high concentration of carbon monoxide. Between 1958 and 1971 as a carbon-monoxide free alternative was introduced, the overall suicide rate decreased, especially among females.

Having a firearm in the home is associated with a 2 to 10 times increased risk for suicide, for all individuals living in that home (Miller & Hemenway, 1999). Firearm-related suicide rates are significantly lower in states with stringent firearm control laws. For example, in 1976 a restrictive handgun law enacted in Washington, D.C. was associated with a 23% decline in suicide rate by firearms. There were no associated increases in suicide by other means and the effects were only found in D.C., and not in neighboring states (Miller & Hemenway, 1999). Specific practices of reducing access to firearms – locking and unloading guns and locking and storing the ammunition in a separate location – are all associated with a protective effect against suicide (Grossman, et al., 2005). Bridge barriers have also been proven effective in reducing suicides – the installation of a barrier on the Duke Ellington Bridge in Washington, D.C. led to a reduction in the overall suicide rate in the city despite the presence of an equally high bridge one block away.

Preventing suicides by hanging has proven difficult since many everyday objects can be used and restriction methods are limited. Nevertheless, mental health promotion and early detection of suicidal symptoms can have a large impact on preventing suicide by any means. While means restriction initiatives may be effective in reducing the immediate risk of suicide, couching it within a larger system of suicide prevention is beneficial as it promotes mental health and wellness as well as early identification and intervention for individuals who may be at risk.

**A Focus on Education and Wellness through Best Practices**

Policies and initiatives to reduce access to lethal means are part of an integrated suicide prevention program that includes education, early intervention postvention and promoting overall mental wellness.

**Means Matters:** This online portal was developed by the Harvard Injury Control Research Center at the Harvard School of Public Health. It promotes activities that reduce a suicidal person’s access to lethal means and includes information on lethal means counseling, program examples, and emerging research.

**The Research Evidence for Suicide as a Preventable Public Health Problem:** This training, hosted by the National Center for Suicide Prevention Training in collaboration with the Harvard Injury Control Research Center and the Suicide Prevention Resource Center, provides an introduction to the public health approach to prevention, examines the evidence for a "lethal means reduction" approach to preventing youth suicides, and offers an overview of comprehensive community strategies.

**Counseling on Access to Lethal Means (CALM):**

Created by the Prevention Center at the Children’s Hospital at Dartmouth, CALM is a two-hour workshop designed to help mental health providers implement counseling strategies to help clients and their families reduce access to lethal means, particularly (but not exclusively) firearms.

**Emergency Department Means Restriction Education:** This intervention is for adult caregivers of youth who are seen in an emergency department (ED) and determined to be at risk for suicide. It helps parents and adult caregivers recognize the importance of taking immediate, new action to restrict access to lethal means in the home and it provides practical advice on how to secure firearms and substances.
WHAT CALIFORNIA IS DOING TO HELP

**California Strategic Plan on Suicide Prevention:** Strategic Direction #3 states that state level actions for community education to prevention suicide should promote information and resources to reduce access to lethal means.

**Firearm Laws in California:** California imposes a **10-day waiting period** before a firearm can be released to a buyer. Waiting periods can provide crucial time for intervention opportunities if the buyer is suicidal. In addition, all firearm owners are required by law to unload and safely store all firearms if a child is present and could gain access to the firearm. Individuals who want to purchase a handgun must pass the Handgun Safety Test to certify that they understand the need and methods for safe storage of handguns. The official **HSC study guide**, released by the California Department of Justice, clearly emphasizes that safe storage practices can help prevent misuse tragedies, including suicide.

**Golden Gate Bridge Highway & Transportation District (“The District”) Suicide Prevention Initiatives:** In response to the approximate 1,200 suicides that have occurred from the Golden Gate Bridge, the District has implemented several suicide prevention strategies including the installation of crisis counseling telephones along the sidewalk that advertise the National Suicide Prevention Lifeline, and training California Highway Patrol officers to intervene for individuals who seem to be suicidal. In January 2010, the District released a **Final Environmental Impact Report** which found that bridge barrier would not impact the environmental surroundings or aesthetic. Shortly thereafter, the District approved the concept of a bridge barrier. As of May 2011, a contract award for the net system final design is anticipated.

**Didi Hirsch Community Mental Health:** This accredited crisis center provides suicide prevention training to emergency department staff at Cedars Sinai Hospital in Los Angeles. The training includes a discussion on the importance of limiting access to lethal means. For more information, please contact Shari Sinwelski (ssinwelski@didihirsch.org).

REFERENCES TO LEARN MORE ABOUT RESTRICTING ACCESS TO LETHAL MEANS

**Nordentoft M (2007). Restrictions in Availability of Drugs Used for Suicide.** *Crisis, 28*: 44-49. A literature review on deliberate self poisoning and the effect of restricting access to drugs was conducted. The findings support suicide prevention strategies that restrict the availability of drugs with high case fatality.

**Miller M & Hemenway D (1999). The Relationship Between Firearms and Suicide: A Review of the Literature.** *Aggression and Violent Behavior, 4*(1): 59-75. This article provides a detailed review of the most commonly cited, representative and thorough empirical studies relating to firearms and suicide, focused largely on the United States.

**Grossman DC, Mueller BA, et al. (2005). Gun Storage Practices and Risk of Youth Suicide and Unintentional Firearm Injuries.** *Journal of the American Medical Association, 293*(6): 707-714. This study measured the association of specific household firearm storage practices and the risk of unintentional and self-inflicted firearm injuries. It found that the four practices of keeping a gun locked, unloaded, storing ammunition locked and in a separate location are each associated with a protective effect.

**Bridge JA, et al. (2010). Changes in Suicide Rates by Hanging and/or Suffocation and Firearms Among Young Persons Aged 10-24 Years in the United States: 1992-2006.** *Journal of Adolescent Health, 46*: 503-505. This study found that the overall suicide rate and the rate of suicide by firearms, poisoning and other methods declined markedly in 1992-2006 whereas the hanging/suffocation rate increased significantly during this same time period for youth.

**Johnson RM & Coyne-Beasley T (2009). Lethal means reduction: what have we learned?** *Current Opinion in Pediatrics, 21*: 1-6. This review article provides evidence regarding lethal means reduction as a suicide prevention strategy, especially through initiatives that reduce access to lethal means.

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