

# Advancing Suicide Prevention Through a Focus on Firearm Safety



See also Runyan et al., p. 1789.

Firearm suicide is an indisputable problem in the United States, and efforts made to address the issue in the current political climate are admirable. Any such work requires a focus on means safety, which in suicide prevention is defined as an effort to make a specific method for suicide (e.g., firearms) either less likely to cause death or more difficult to access during a suicide attempt. Means safety can take both legislative (e.g., universal background checks for firearm sales) and nonlegislative (e.g., encouragement of safe storage of firearms) forms. Historically, this approach has been referred to as “means restriction”; however, both anecdotal and empirical evidence indicates that the word “restriction” decreases the likelihood that firearm owners will be willing to engage with the intervention.<sup>1</sup>

The limited reach of means safety measures focused on firearms across the United States indicates that there is a dire need to enhance our understanding of cultural and logistical hurdles that may be preventing broader implementation. The study by Runyan et al. (p. 1789) in this issue of *AJPH* represents an important step in understanding nonlegislative forms of means safety, and their results offer hope for means safety’s potential reach. In particular, their findings regarding the high percentage of law enforcement agencies and retailers willing to temporarily store firearms for firearm owners were encouraging. Indeed, such results

represent convincing evidence that there are avenues for collaboration with the firearm-owning community that would increase the credibility of means safety among firearm owners and facilitate a cultural shift regarding how to treat firearms within the context of suicidal crises.

Although evidence for the efficacy of certain forms of legislation in reducing the suicide rate exists,<sup>2</sup> such legislation may be unlikely to pass in states with high rates of gun ownership. This does not negate the value of such legislation—decreases in suicide rates are important in states with lower gun ownership and suicide rates as well—but it does highlight the need to also consider other variations in means safety. The approach considered by Runyan et al. has the potential to play a vital role in increasing the plausibility and reach of means safety in more conservative parts of the country.

As is the case with any investigation, this study was not without limitations. For instance, the study was conducted in several western states, which might limit generalizability to other regions with different firearm ownership cultures, such as the Deep South. The response rate—particularly for retailers—was low, raising concerns that the responses of those who participated may not be representative of the larger population. That said, the authors’ approach was comprehensive, and their results

represent an important early step in determining how best to develop means safety approaches capable of reaching the greatest proportion of those in need of such services.

## MEANS SAFETY AT THE POPULATION LEVEL

An important next step in this research involves determining how to engage with firearm owners who may have suicidal thoughts and intent but who are not readily identified as being at high risk for suicide. Individuals in the demographic groups most vulnerable to firearm suicide (e.g., older adults, men in general, military personnel) are also historically prone to avoiding mental health care altogether or underreporting suicidal thoughts if they do receive care.<sup>3</sup> Furthermore, those who die by suicide with a firearm are less likely than those who die via other methods to have had a prior nonlethal suicide attempt via any method.<sup>4</sup>

As such, we routinely fail to identify many of those most at risk before they die. Given that we are not particularly adept at prospectively predicting suicide deaths,<sup>5</sup> it is vital that we seek to implement means safety efforts in as broad a manner as possible. In doing so, we can

reduce the extent to which suicide prevention relies on correctly assessing suicidal desire and instead focus on reducing the practical capability for suicide,<sup>6,7</sup> thereby rendering suicidal individuals less able to transition from suicidal ideation to suicide attempt.

## STORING FIREARMS WITHOUT A STATED REASON

Runyan et al. report that both law enforcement agencies and retailers are more reticent about temporarily storing firearms when no reason is given. Despite the understandable concerns these individuals have for storing firearms without a stated reason, this represents an obstacle to many vulnerable to suicide by firearm, as temporary storage may thus require “outing” oneself. As noted, many individuals are unwilling to openly endorse suicidal ideation, and, as such, the willingness of law enforcement agencies and retailers to temporarily store firearms may be of limited value if high-risk individuals are unwilling to engage with such prevention opportunities. Future work will need to consider this obstacle and, perhaps even more so, consider how to encourage engagement with means safety among those most inclined to suffer in silence and use their own firearm in a suicide attempt.

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## IMPORTANCE OF EFFECTIVENESS DATA

The research on nonlegislative forms of means safety remains in its infancy. That said, an additional vital step in this area of research will be to establish that these intuitively appealing and pragmatic suggestions actually result in reduced suicide rates. It remains a challenge to identify appropriate proxy or intermediate measures to show the impact of these nonlegislative forms of prevention. Indeed, such work will prove difficult, as effective implementation at specific sites may lead to changes in the suicide rate at a local level, but not changes at

the national or even state level. Despite this obstacle, effectiveness data remain vital to ensure that resources and efforts are expended as efficiently as possible and outcomes are prioritized over intuition. *AJPH*

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### REFERENCES

1. Stanley IH, Hom MA, Rogers ML, Anestis MD, Joiner TE. Discussing firearm ownership and access as part of suicide risk assessment and prevention: “means safety” versus “means restriction.” *Arch Suicide Res.* 2017;21(2):237–253.
2. Anestis MD, Anestis JC. Suicide rates and statewide laws regulating access and exposure to handguns. *Am J Public Health.* 2015;105(10):2049–2058.
3. Cukrowicz KC, Jahn DR, Graham RD, Poindexter EK, Williams RB. Suicide risk in older adults: evaluating models of risk and predicting excess zeros in a primary care sample. *J Abnorm Psychol.* 2013; 122(4):1021–1030.
4. Anestis MD. Prior suicide attempts are less common in suicide decedents who

died by firearms relative to those who died by other means. *J Affect Disord.* 2016;189: 106–109.

5. Franklin JC, Ribeiro JD, Fox KR, et al. Risk factors for suicidal thoughts and behaviors: a meta-analysis of 50 years of research. *Psychol Bull.* 2017;143(2):187–232.
6. Klonsky ED, May AM. The three-step theory (3ST): a new theory of suicide rooted in the “ideation-to-action” framework. *Int J Cogn Ther.* 2015;8(2): 114–129.
7. Anestis MD, Law KC, Jin H, Houtsma C, Khazem LR, Assavedo BL. Treating the capability for suicide: a vital and understudied frontier in suicide prevention. *Suicide Life Threat Behav.* 2016; Epub ahead of print.

# Mexican Cohort Study Predates but Predicts the Type of Body Composition Changes Expected From the Mexican Sugar-Sweetened Beverage Tax

 See also Stern et al., p. 1801.

Important lessons can be learned from studies of the Mexican sugar-sweetened beverage (SSB) tax and related studies on the health effects of the tax. The Mexican government instituted a nationwide one peso per liter excise tax on SSBs that was effective on January 1, 2014. The tax applies to all nonalcoholic beverages with added sugar and represents an approximate 10% increase in prices. The Mexican SSB tax rate is less than the 20% rate in Philadelphia, Pennsylvania, and scholars globally recommend that the rate be at least 20% or larger to have a meaningful impact.

The article by Stern, et al. (p. 1801) uses data from before the tax was implemented but is the first published large-scale longitudinal study that uses the Mexican teachers cohort to examine the impact of SSBs on weight in Mexico. The Mexican teachers cohort was designed to follow procedures similar to those of the well-known Harvard cohort studies (the Nurses’ Health Study and Health Professionals Follow-up Study) of health professionals and nurses’ cohorts. Combining this study with others from Mexico provides some sense of the long-term benefits we can

realistically expect to achieve with this tax.

## SSB DECREASES AFFECT WEIGHT LESS THAN INCREASES

Stern et al. examine in the Mexican teachers cohort how decreases and increases in SSB servings are linked, respectively, with subsequent weight and waist circumference decreases

and increases. These are not symmetrical. An increase of one SSB serving per week has a larger impact on weight and waist circumference gain than the reverse, a decrease in SSB servings, which is linked with a smaller but still significant reduction in both outcomes. Because of a complex set of biological adjustments, the body needs to ingest more kilocalories to lose weight than to gain weight.<sup>1</sup>

After the implementation of the 10% SSB tax in Mexico, the volume of SSBs consumed kept falling as Mexicans became habituated to reduced SSB intake.<sup>2,3</sup> The first year of the tax was linked with about a 6% overall decline in SSB consumption, whereas the second year led to an added 4% decline among the overall population and a much greater decline among the low socioeconomic

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