


When Do Means Matter in a Population?

 MEANS REDUCTION: Circumstances under which a Drop in Suicide Rates Would be Expected following Means Reduction*	
Circumstance	Why
The method is very frequently used in completed suicides (e.g., domestic gas in the mid-1900s in the UK, firearms in the US, pesticides in the Asia Pacific region)	The greater numbers mean there will be greater statistical power to detect a drop in the overall suicide rate.
The method has a high case fatality rate (CFR).	If a method with a high CFR is made less available (e.g. bridge barrier installed, firearms locked up), there is greater chance that an attempter will substitute a method with a lower CFR thus resulting in a net savings of lives. If it is made less lethal (e.g. reducing CO content in car exhaust), the result should also be a savings in lives.
The lethality, availability, and popularity of other methods is not increasing.	Drop in one method will not be offset by increases in another.
Suicide attempts overall are either not changing or declining	Drop in one method will not be offset by overall increase in suicidal behavior that is the result of secular trends.
The group that uses the method includes impulsive attempters	Method reduction is expected to have more impact on impulsive attempters than on deliberative attempters. A greater proportion of deliberative attempters can be expected to substitute equally lethal means or to ensure that less lethal means are employed to lethal effect.
Methods for coding suicides do not change (e.g., deaths that were previously called "undetermined" on death certificate now being called suicides)	Drop in one method will not be masked by an overall increase in suicide that is the artifact of a reporting change.

* "Means reduction" refers to reducing access to a lethal means of suicide (e.g. dispensing fewer sleeping pills at a time, storing firearms elsewhere than home, erecting bridge barriers) or reducing the lethality of a method (e.g. reducing human toxicity of pesticides, reducing carbon monoxide content of car exhaust and domestic gas).

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MEANS REDUCTION: Circumstances under which a Drop in Suicide Rates Would NOT be Expected following Means Reduction

Circumstance	Why
The method is infrequently used in completed suicides	The smaller numbers provide little statistical power to detect even a true drop in overall suicides. For example, a drop of 20% in carbon monoxide suicides in the (20% of roughly 1,400 carbon monoxide suicides= 280) may not be detectable among 30,000 U.S. suicides annually even if there were no method substitution.
The method had a low case fatality rate (CFR) to start with (e.g., aspirin).	If a low CFR is reduced further, there will likely be reductions in nonfatal harm, but reductions in fatality may be undetectable. If the method was popular and is made unavailable, there is a risk that attempters will substitute a method with a <i>higher</i> CFR, resulting in a net INCREASE in deaths.
Suicide attempts overall are increasing.	A drop in one method will be offset by increases in all others if underlying suicidal behavior is increasing.
The lethality, availability, and/or popularity of another method(s) increases	Drop in one method may be offset by increases in another method (e.g., increased lethality of prescription pain medications, sudden popularity and news coverage of charcoal fire suicides, greater acceptability of hangings).
The group that uses the method are largely deliberative attempters	Although the link between sustained, deliberative intent and fatal (vs. nonfatal) attempt is not well-understood, it seems probable that more deliberative attempters will be more likely to substitute another method with equally lethal outcome.
Methods for coding suicides are changing (e.g. more deaths that were previously called "undetermined" are now being called suicides)	If there is a trend toward ruling as suicide a death that would previously have been called accidental or undetermined, a reduction in one method will be washed out by a seeming increase in suicides.
Reduction is measured in numbers, not rates, and the population is growing.	Impact of a means reduction strategy may not be detected if measured in numbers of deaths only. If the population is increasing, impact must be measured by the rate (number per 100,000 persons).